WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Brain Health

Brain health is the state of brain functioning across cognitive, sensory, social-emotional, behavioural and motor domains, allowing a person to realize their full potential over the life course, irrespective of the presence or absence of disorders. Different determinants related to physical health, healthy environments, safety and security, life-long learning and social connection as well as access to quality services influence the way our brains develop, adapt and respond to stress and adversity. These give way to strategies for promotion and prevention across the life course. Optimizing brain health by addressing these determinants not only improves mental and physical health but also creates positive social and economic impacts that contribute to greater well-being and help advance society.

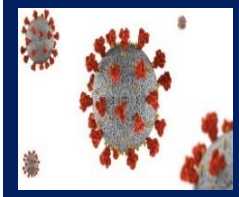
However, conditions affecting the brain and nervous system in general emerge throughout the life course and are characterized by disruptions in brain growth, damage to brain structure and/or impaired brain functioning. These include for example congenital and neurodevelopmental conditions as well as neurological disorders across the life. Health and social care for these conditions require multisectoral and interdisciplinary collaborations with a holistic person-centred approach focused on promotion, prevention, treatment, care and rehabilitation and the active engagement of persons with lived experience, their families and carers.

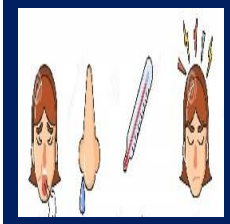
The global burden of neurological and neurodevelopmental conditions is high, with approximately 70% of the burden in low- and middle-income countries. Neurological conditions are the leading cause of disability adjusted life years (DALYs) and account for about 9 million deaths per year. The largest contributors of neurological DALYs in 2016 were stroke (42.2%), migraine (16.3%), dementia (10.4%), meningitis (7.9%) and epilepsy (5%). Parkinson disease, propelled by an increasingly ageing population, is the fastest growing neurological disorder. Premature birth, neonatal encephalopathy and neuroinfections contribute substantially to high disease burden in South-East Asia and Africa. In 2016, developmental disabilities accounted for 13.3% of the 29.3 million years lived with disability for all health conditions among children younger than 5 years.

Despite the large burden, only 28% of low-income countries have a dedicated policy for neurological diseases in comparison with 64% of high-income countries. Available resources for these conditions are insufficient in most countries, with unacceptably high treatment gaps for many neurological and neurodevelopmental conditions. For example, in low- and middle-income countries, there are only three adult neurologists per 10 million people while high-income countries have approximately 160 times more. Resources for the assessment and care of children with neurological and neurodevelopmental conditions are even more scarce.

Taken from WHO website on 18/September/2024
https://www.who.int/health-topics/brain-health#tab=tab_1
https://www.who.int/health-topics/brain-health#tab=tab_2

EPI WEEK 36





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 – 33 to 36 of 2024

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

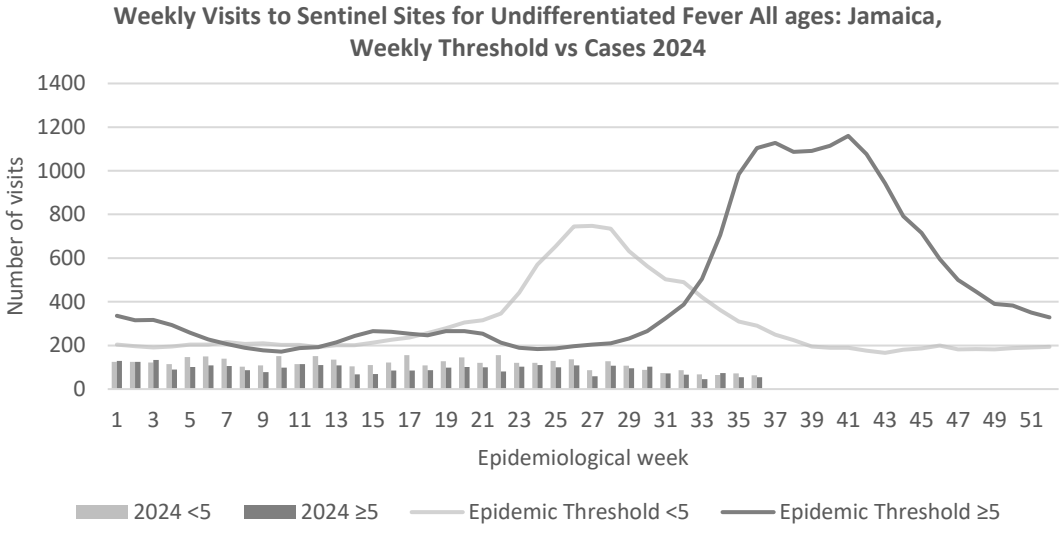
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

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													
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	Late (T)	On Time	On Time	On Time	On Time
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
36	On Time	late (w)	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

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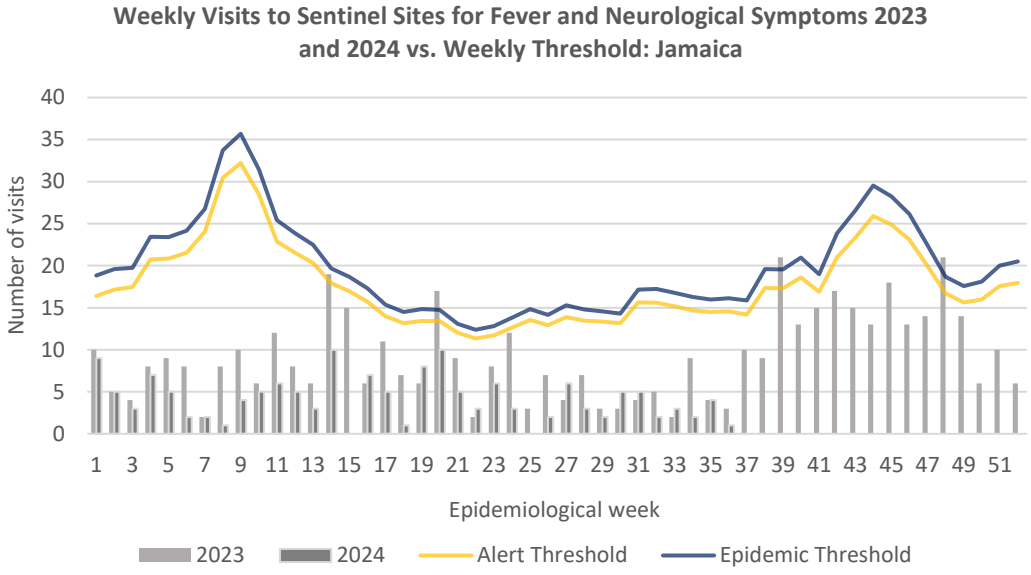
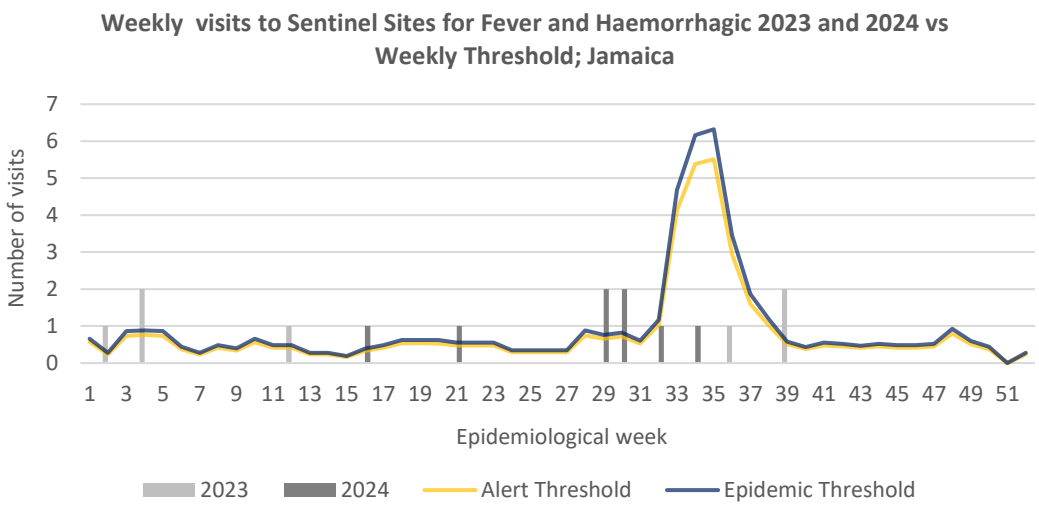
FEVER AND NEUROLOGICAL

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

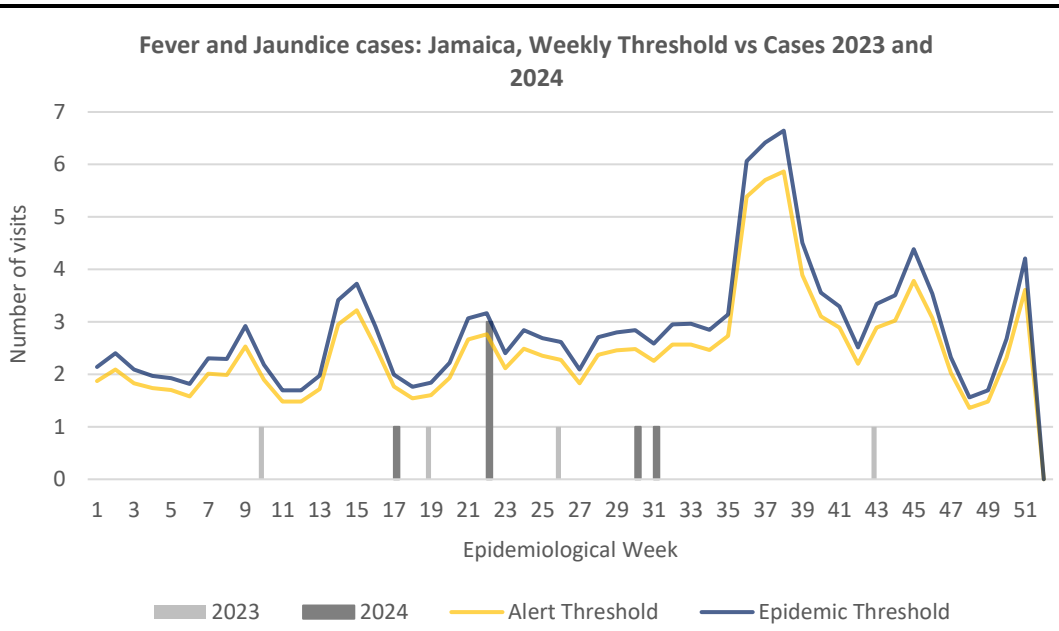
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



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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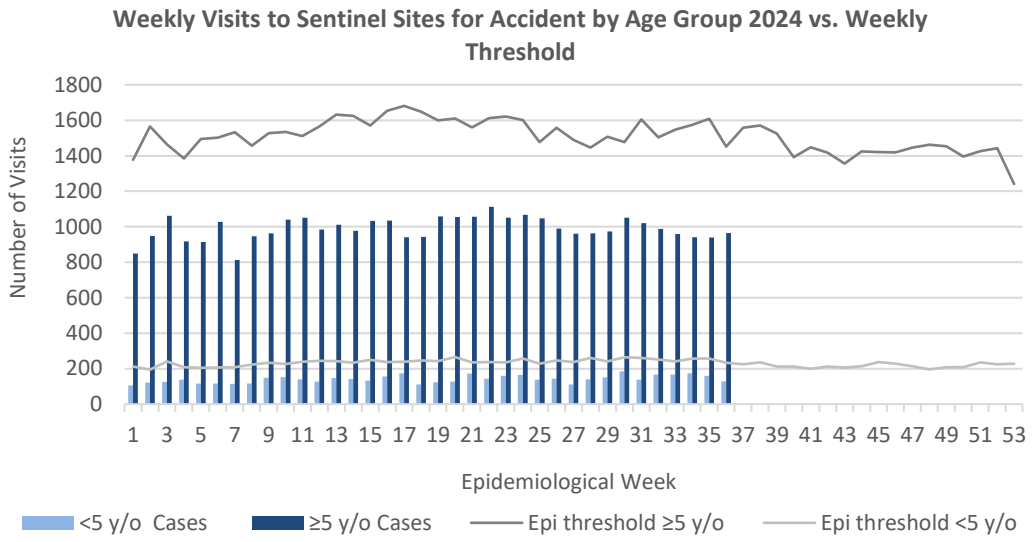
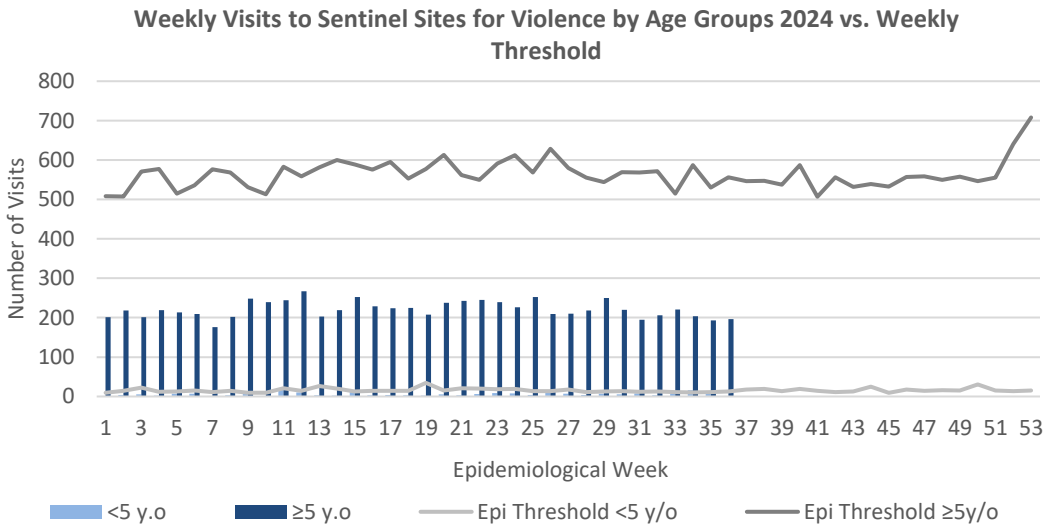
ACCIDENTS

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



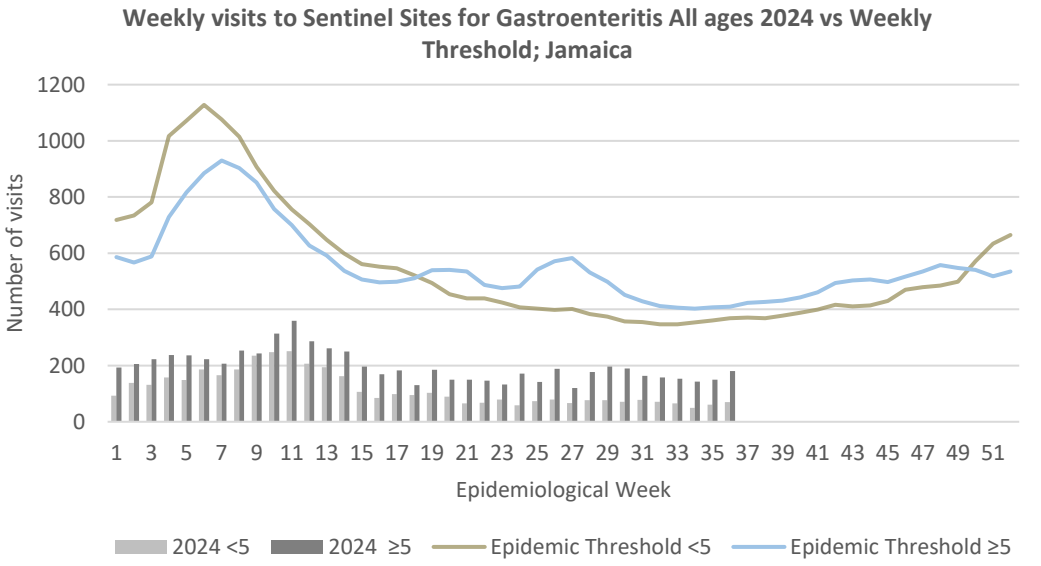
VIOLENCE

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		206[β]	267[β]
	Cholera		0	0
	Severe Dengue[Y]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		637	3548
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		16	50
	Hepatitis C		3	24
	HIV/AIDS		NA	NA
	Malaria (Imported)		2	3
	Meningitis		9	21
	Monkeypox		0	3
EXOTIC/ UNUSUAL	Plague		0	0
H IGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0
	Neonatal Tetanus		0	0
	Typhoid Fever		0	0
	Meningitis H/Flu		1	2
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]		43	38
	Ophthalmia Neonatorum		94	102
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		21	49
	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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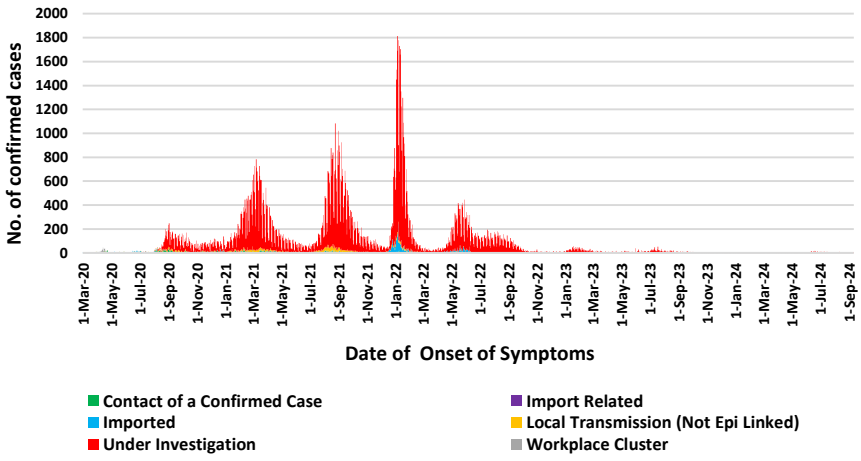
COVID-19 Surveillance Update

CASES	EW 36	Total
Confirmed	10	157374
Females	0	90682
Males	10	66689
Age Range	11 months to 84 years old	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.

Classification of Confirmed COVID-19 Cases by Date of Onset of Symptoms, Jamaica (157,374 cases)



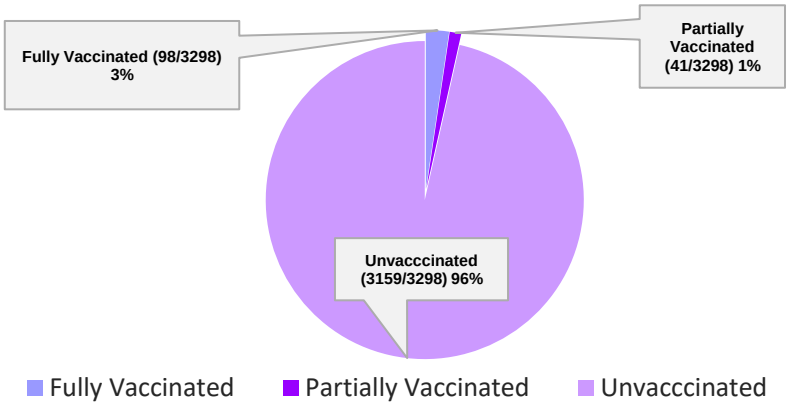
COVID-19 Outcomes

Outcomes	EW 36	Total
ACTIVE *2 weeks*		26
DIED – COVID Related	0	3862
Died - NON COVID	0	382
Died - Under Investigation	0	151
Recovered and discharged	0	103226
Repatriated	0	93
Total		157374

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

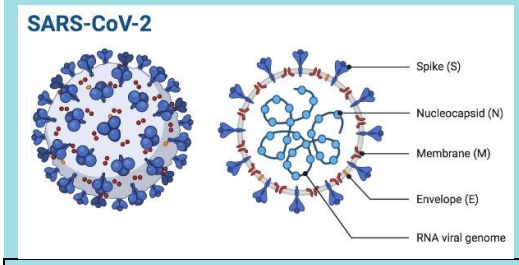
3298COVID-19 Related Deaths since March 1, 2021 – YTD

Vaccination Status among COVID-19 Deaths



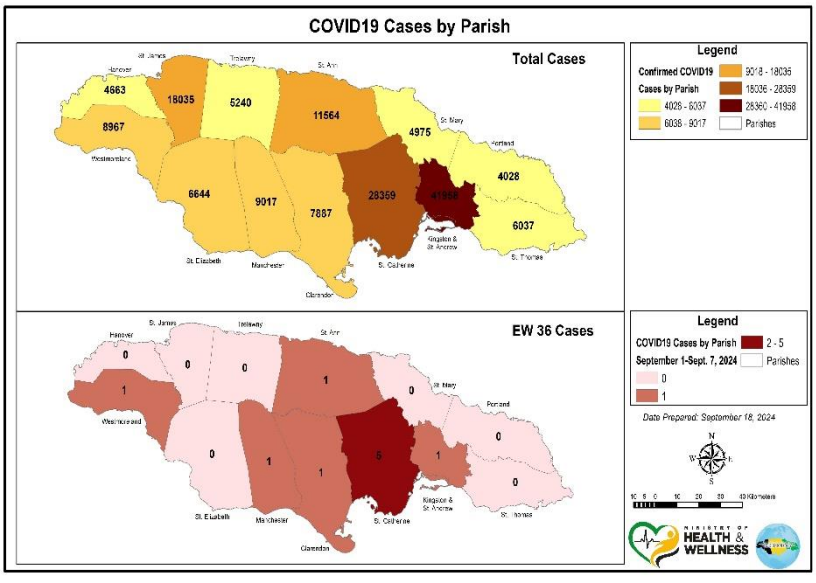
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW 33-36, 2024

Epi Week	Confirmed Cases	Deaths
33	62900	1300
34	61100	1200
35	62500	1100
36	63400	890
Total (4weeks)	**249900**	**4490**



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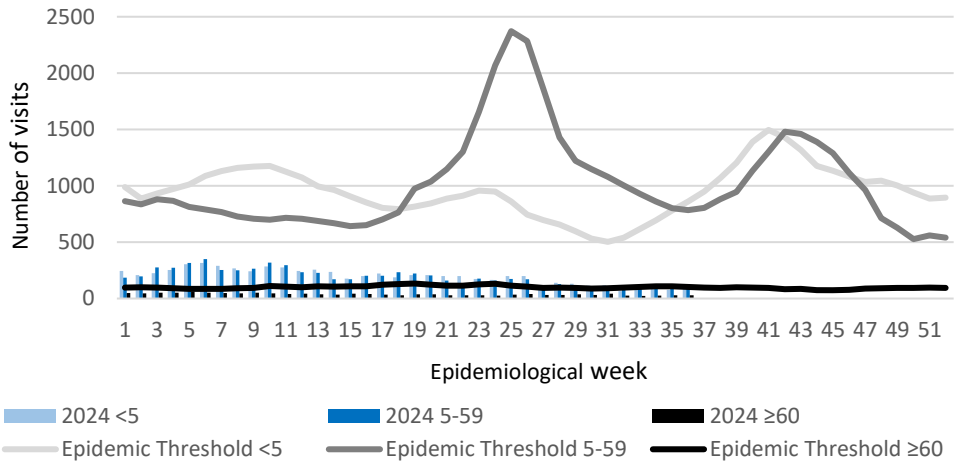
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 36

September 1, 2024 – September 7, 2024 Epidemiological Week 36

	EW 36	*YTD*
SARI cases	9	226
Total Influenza positive Samples	**0**	**135**
Influenza A	**0**	**130**
H3N2	0	36
H1N1pdm09	0	94
Not subtyped	0	0
Influenza B	**0**	**5**
B lineage not determined	0	0
B Victoria	0	5
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	37

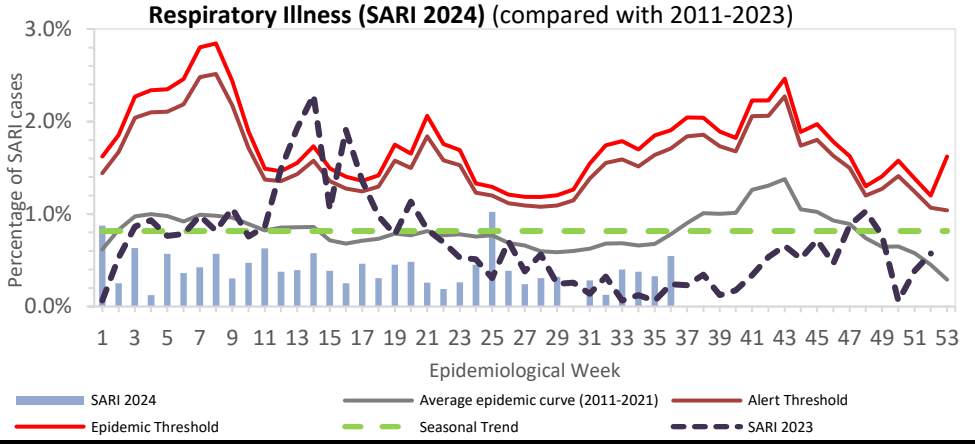
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 36, nine (9) SARI admissions were reported.

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



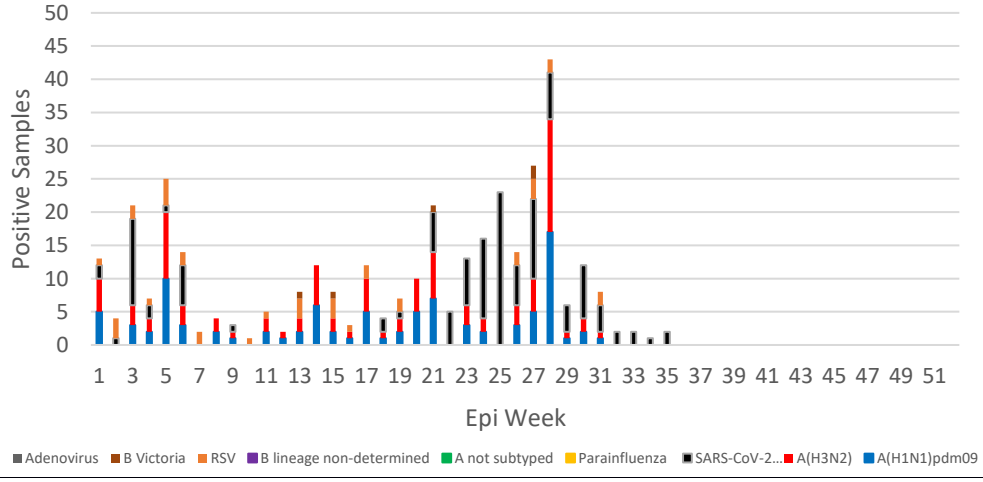
Caribbean Update EW 36

Caribbean: ILI cases have maintained a declining trend associated with a higher proportion of positive influenza cases. SARI cases have remained low, with the majority of positive cases attributed to SARS-CoV-2. Influenza activity has been declining over the past four EW, with A(H3N2) being predominant, following by A(H1N1)pdm09. RSV activity has remained low and SARS-CoV-2 activity remains high, though declining.

By country: In the last four EW, influenza activity has been observed in Belize, the Dominican Republic, Saint Lucia, Suriname and Guyana. Additionlly, SARS-CoV-2 activity has been recorded in Belize, Haiti, Jamaica, Saint Lucia Barbados, Guyana, and Saint Vincent and the Grenadines. RSV activity has been detected in the Dominican Republic and Guyana.

(taken from PAHO Respiratory viruses weekly report) https://www.paho.org/en/influenza-situation-report

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



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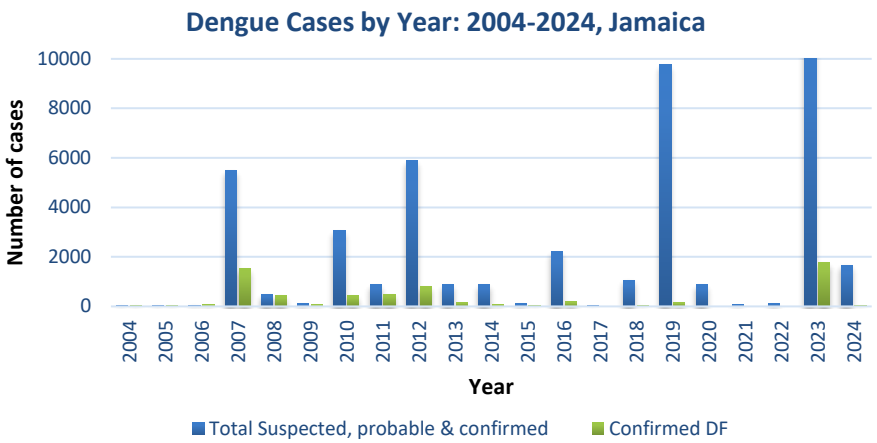
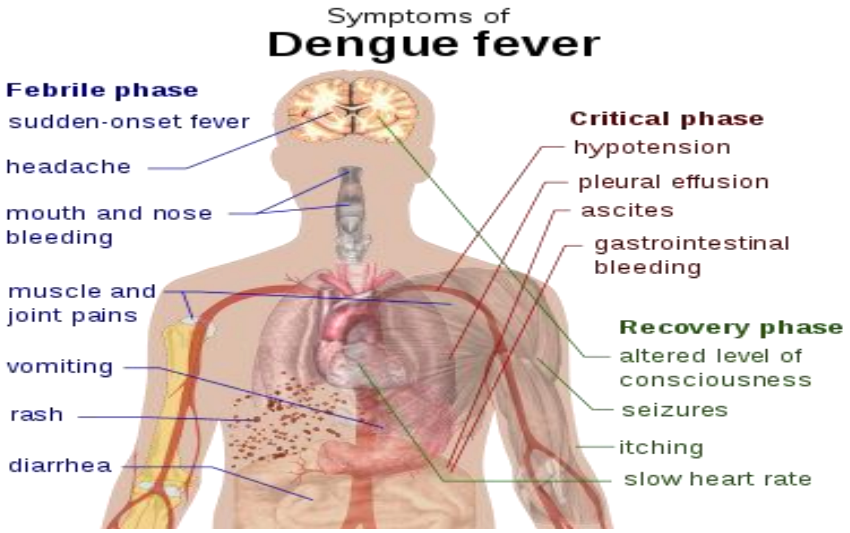
Dengue Bulletin

September 1, 2024 – September 7, 2024 Epidemiological Week 36 | Epidemiological Week 36



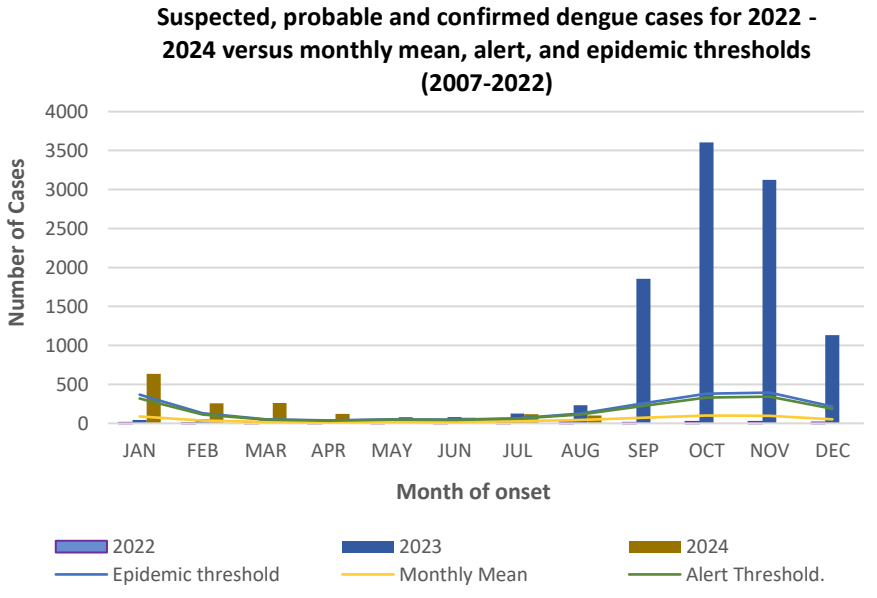
Reported suspected, probable and confirmed dengue with symptom onset in week 36 of 2024

	2024*	
	EW 36	YTD
Total Suspected, Probable & Confirmed Dengue Cases	1	1666
Lab Confirmed Dengue cases	0	40
CONFIRMED Dengue Related Deaths	0	1



Points to note:

- **Dengue deaths are reported based on date of death.**
- ***Figure as at September 18, 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-23-O16

The Impact of COVID-19 on Maternal Mortality in Jamaica

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[2]*Adjunct Professor, Department of Community Health and Psychiatry, University of the West Indies, Mona, Kingston 7, Jamaica*

Objective: To determine the impact of COVID-19 on maternal mortality by comparing the causes of and Maternal Mortality Ratio (MMR) per 100,000 live births for Jan-2020-Dec-2021 (COVID-19 period) and a pre-COVID-19 reference period (Jan-2018-Dec-2019).

Methods: Registered deaths for 1-Jan-2018 to 31-Dec-2021 in women 10-49 years with evidence of pregnancy were combined with MOHW-Maternal Mortality Surveillance data to create a master-list of maternal deaths. The master-list was cleaned and coded using WHO guidelines for maternal and COVID-19 deaths. Maternal deaths (pregnancy to 42 days post-partum) were disaggregated by year and period of occurrence, comparing the COVID-19 (2020-21) and pre-COVID-19 (2018-19) periods.

Results: The MMR increased from 136.8 in 2018/2019 to 172.2 during the COVID-19 period. The COVID-19 cause-specific MMR was 61.4 and was the leading cause of death during the period. Most COVID-19 deaths (39/41) occurred in 2021. The direct mortality ratio was unchanged at 86.8 for both periods, however obstetric haemorrhage replaced the hypertensive disorders of pregnancy as the leading direct cause of death in the latest period. The pregnancy mortality ratio for accidents and violence declined 54 percent between the two periods due to fewer violent deaths (8.8 versus 1.5/100,000). Mortality rates from accidents were unchanged (4.4).

Conclusion: The COVID-19 pandemic adversely affected the Jamaican MMR. The 2018-21 MMR of 154 represents an upward MMR trend from 92 (1998-03). Exclusion of COVID-19 deaths would reduce the 2018-21 ratio to 111, which was still above the 102 for 2010-15. Jamaica is unlikely to meet the SDG MMR goal of 70/100,000.

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