

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Child Health



Protecting and improving the health of children is of fundamental importance. Over the past several decades, we have seen dramatic progress in improving the health and reducing the mortality rate of young children. Among other encouraging statistics, the number of children dying before the age of 5 was halved from 2000 to 2017, and more mothers and children are surviving today than ever before.

However, a great deal of work remains to further improve the health outcomes for children. The world is facing a double mandate. More than half of child deaths are due to conditions that could be easily prevented or treated given access to health care and improvements to their quality of life.

At the same time, children must also be given a stable environment in which to thrive, including good health and nutrition, protection from threats and access to opportunities to learn and grow. Investing in children is one of the most important things a society can do to build a better future.

Vast disparities exist around the world in a child's chances of survival, with low- and middle-income countries disproportionately affected. Sub-Saharan Africa has the highest child mortality rate in the world, in some places 15 times higher than in high-income countries. The leading causes of death among children include respiratory infections, diarrhoeal diseases, measles, malaria, malnutrition and newborn conditions. Many child deaths are preventable through vaccination, adequate home care, access to health care services, improved rates of breastfeeding and better nutrition. However, many of the life-saving interventions are beyond the reach of the world's poorest people.

Survival is just one of many issues relevant to children's health. Child health, growth and development are inseparable. In 2016, at least 250 million children were not able to reach their full physical or psychological development. This represents the staggering figure of 43%. Violence against children is also rampant. In 2019, abuse or neglect affected as many as 1 billion children.

Taken from WHO website on 04/September/2024
https://www.who.int/health-topics/child-health#tab=tab_1
https://www.who.int/health-topics/child-health#tab=tab_2

EPI WEEK 34



Syndromic Surveillance

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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 – 31 to 34 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												
31	On Time	On Time	On Time	Late (W)	On Time	Late (W)	On Time	Late (W)	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	On Time	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	Late (T)	On Time	On Time	On Time	On Time

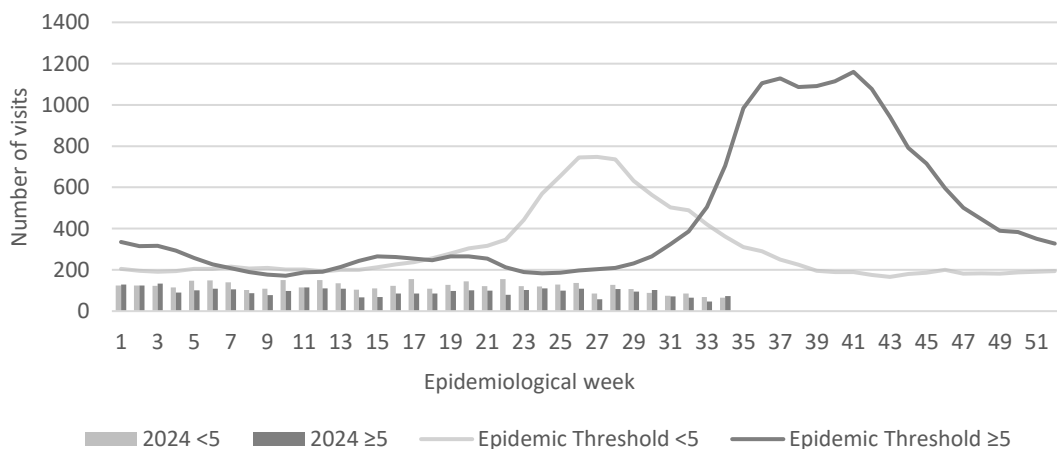
REPORTS FOR SYNDROMIC SURVEILLANCE

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



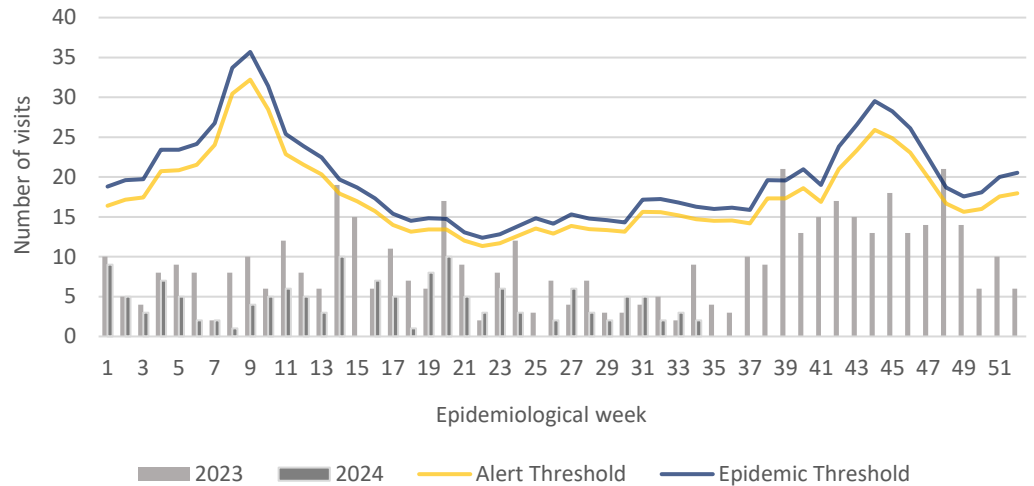
SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}\text{C}$ / 100.4°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

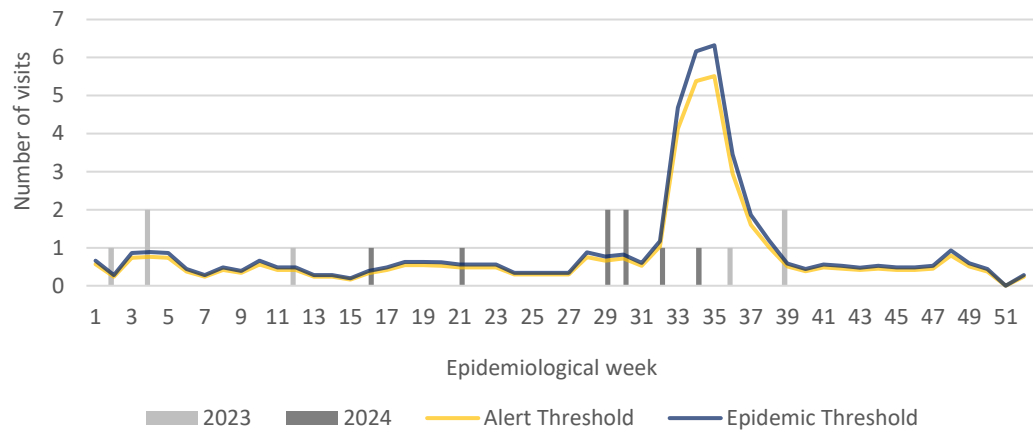


FEVER AND HAEMORRHAGIC

Temperature of $>38^{\circ}\text{C}$ / 100.4°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



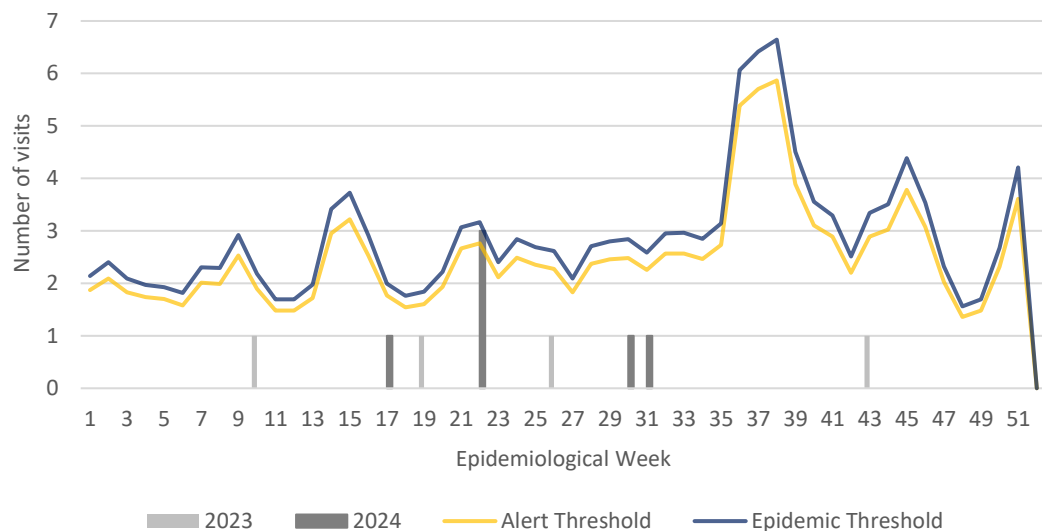
FEVER AND JAUNDICE

Temperature of $>38^{\circ}\text{C}$ / 100.4°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

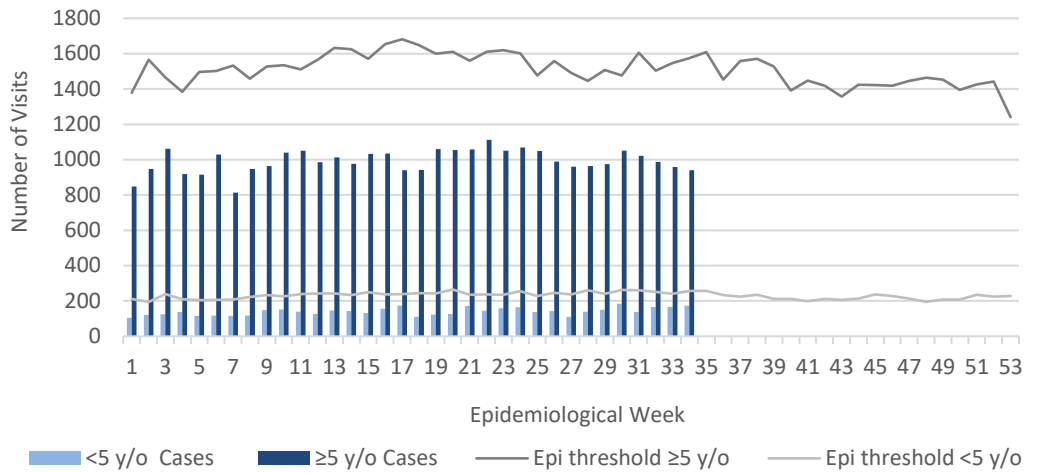


ACCIDENTS

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

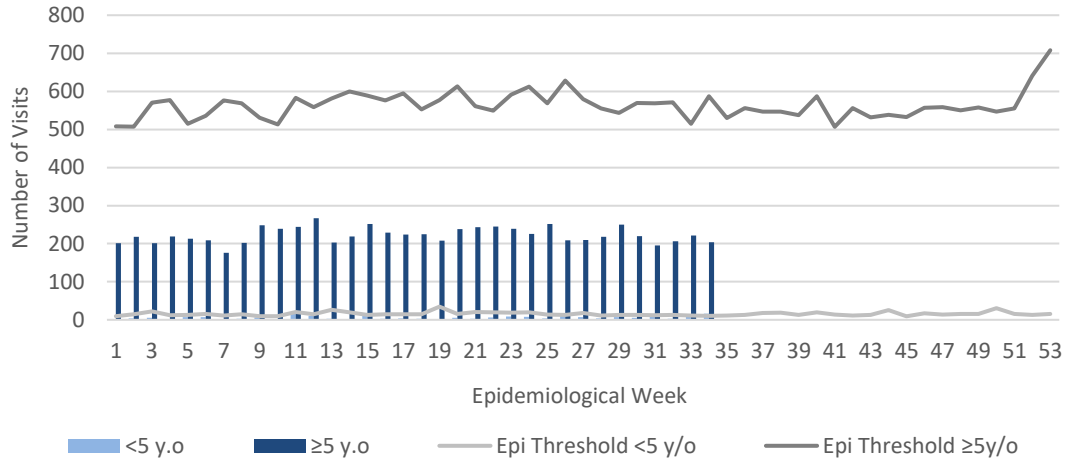


VIOLENCE

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

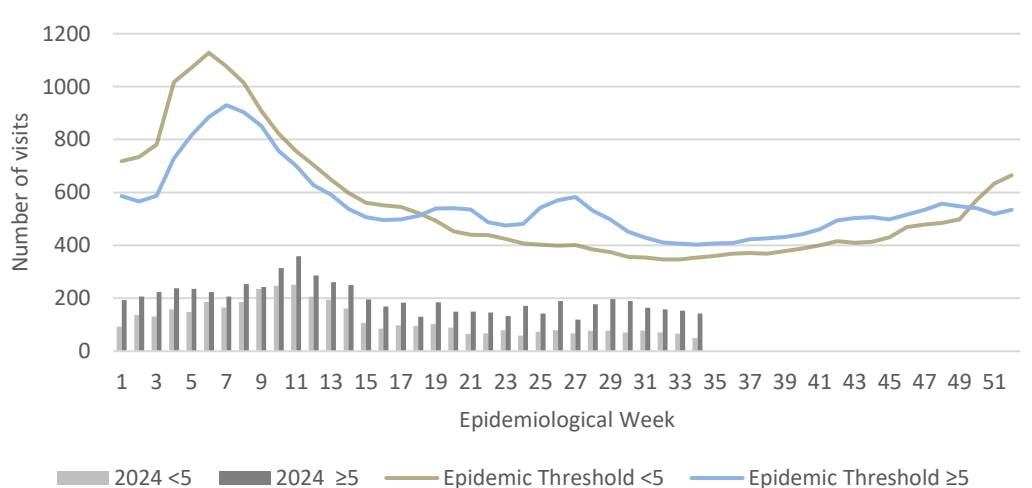


GASTROENTERITIS

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



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SENTINEL REPORT- 78 sites. Automatic reporting



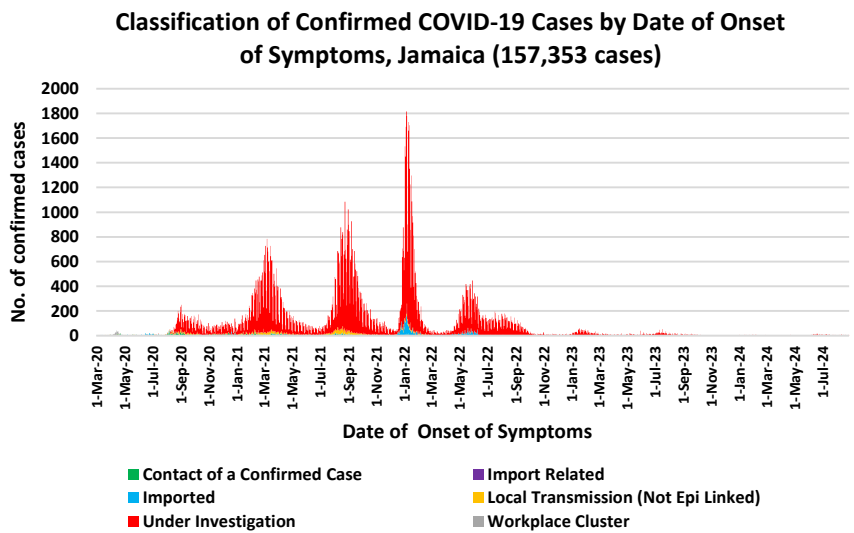
CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2024	PREVIOUS YEAR 2023		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	206 ^β	252 ^β	AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 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.	
	Cholera	0	0		
	Severe Dengue ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	614	3437		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	16	50		
	Hepatitis C	3	24		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	2	3		
	Meningitis	9	20		
	Monkeypox	0	3		
EXOTIC/ UNUSUAL	Plague	0	0	^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.	
HIGH 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	37		
	Ophthalmia Neonatorum	72	92		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	20	45		
Yellow Fever	0	0			
Chikungunya ^ε	0	0			
Zika Virus ^θ	0	0	NA- Not Available		

 <p>5 NOTIFICATIONS- All clinical sites</p>	 <p>INVESTIGATION REPORTS- Detailed Follow up for all Class One Events</p>	 <p>HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued</p>	 <p>SENTINEL REPORT- 78 sites. Automatic reporting</p>
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COVID-19 Surveillance Update

CASES	EW 34	Total
Confirmed	30	157353
Females	14	90675
Males	16	66675
Age Range	14 days to 88 years old	1 day to 108 years

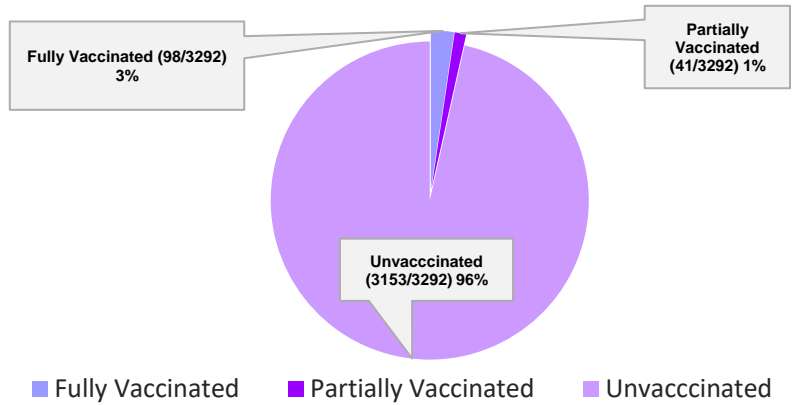
* 3 positive cases had no gender specification
 * PCR or Antigen tests are used to confirm cases
 * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

Outcomes	EW 34	Total
ACTIVE *2 weeks*		51
DIED – COVID Related	0	3856
Died - NON COVID	0	380
Died - Under Investigation	0	155
Recovered and discharged	0	103226
Repatriated	0	93
Total		157353

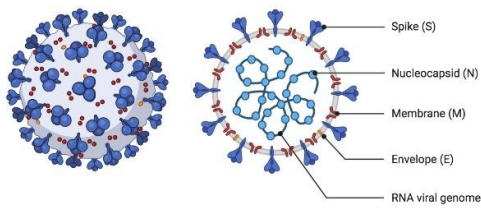
3292 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

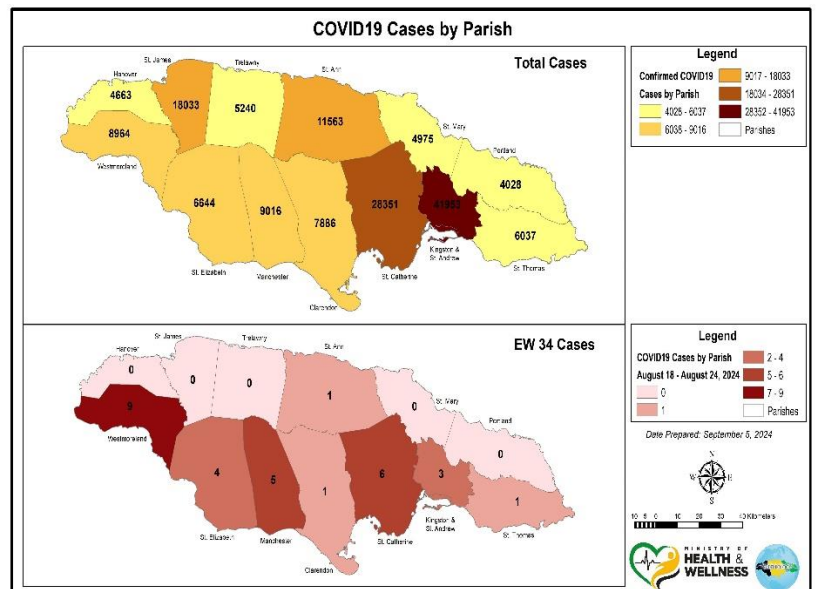
COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW 31-34, 2024

Epi Week	Confirmed Cases	Deaths
31	57800	1100
32	60900	1200
33	61100	1200
34	58600	997
Total (4weeks)	238400	4497



6 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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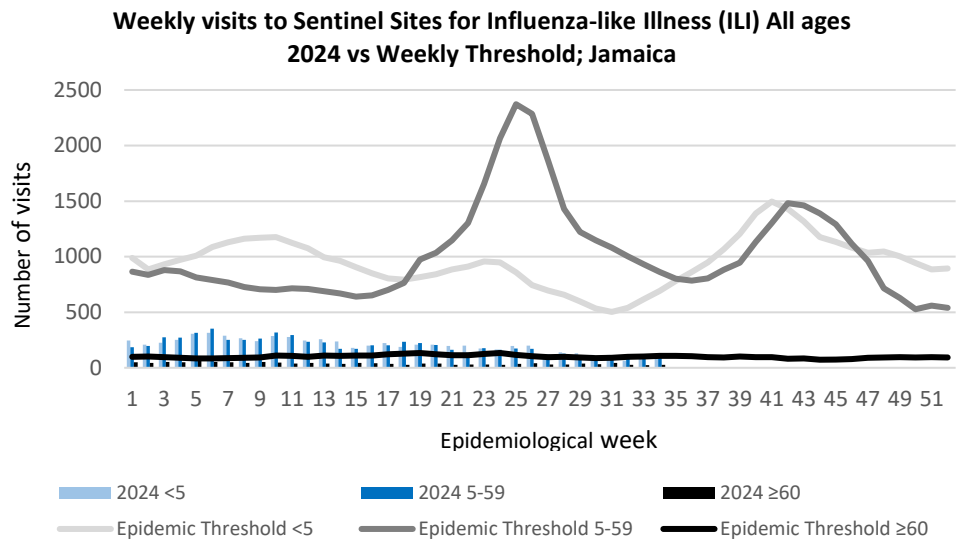


NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 34

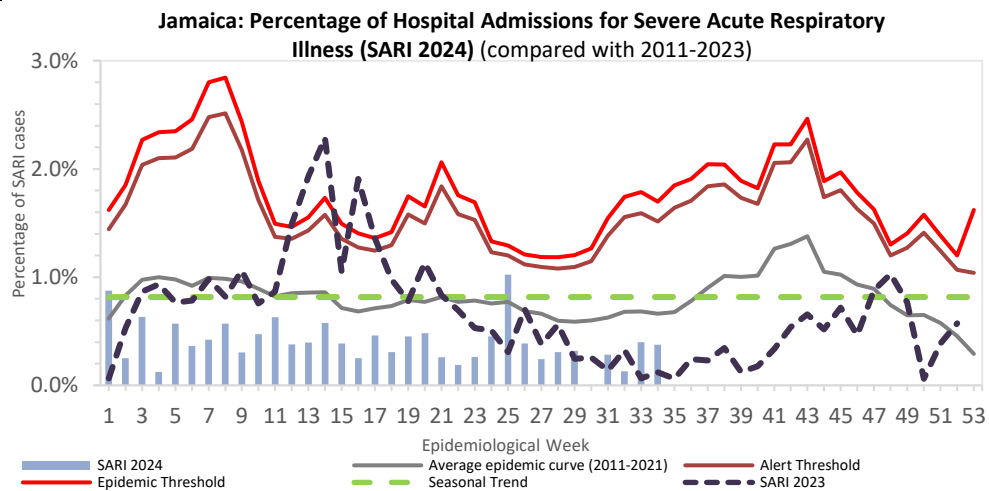
August 18, 2024 – August 24, 2024 Epidemiological Week 34

	EW 34	YTD
SARI cases	6	212
Total Influenza positive Samples	0	128
Influenza A	0	123
H3N2	0	32
H1N1pdm09	0	91
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	35



Epi Week Summary

During EW 34, six (6) SARI admissions were reported.

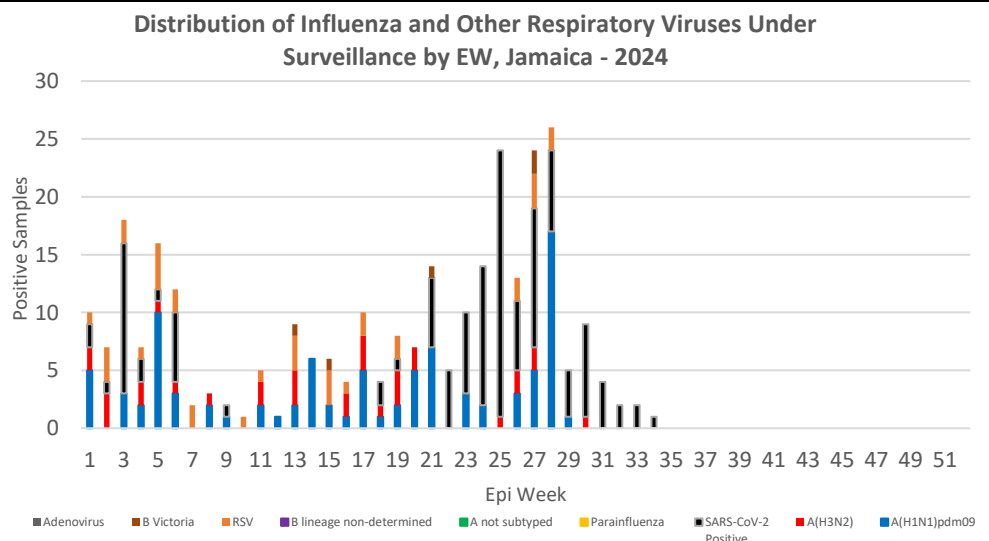


Caribbean Update EW 34

Caribbean: Following the rise observed in previous weeks, ILI cases have shown a decreasing trend over the past four EW, associated with a higher proportion of positive influenza cases. SARI cases have remained low. Influenza activity has fluctuated, though declining at moderate levels over the past four Ew, with A(H3N2) being predominant, followed by A(H1N1)pd09. RSV activity has remained low, though showing a slight increase and SARS-CoV-2 activity remains high.

By country: In the last four EW, influenza activity has been observed in Belize, the Dominican Republic and Guyana. Additionally, SARS-CoV-2 activity has been recorded in Belize, Jamaica, Barbados, Guyana, the Cayman Islands and Saint Vincent and the Grenadines.

(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



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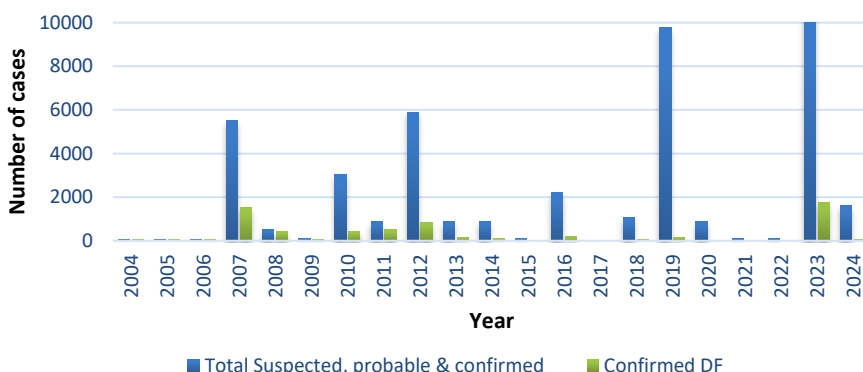
Dengue Bulletin

August 18, 2024 – August 24, 2024 Epidemiological Week 34

Epidemiological Week 34



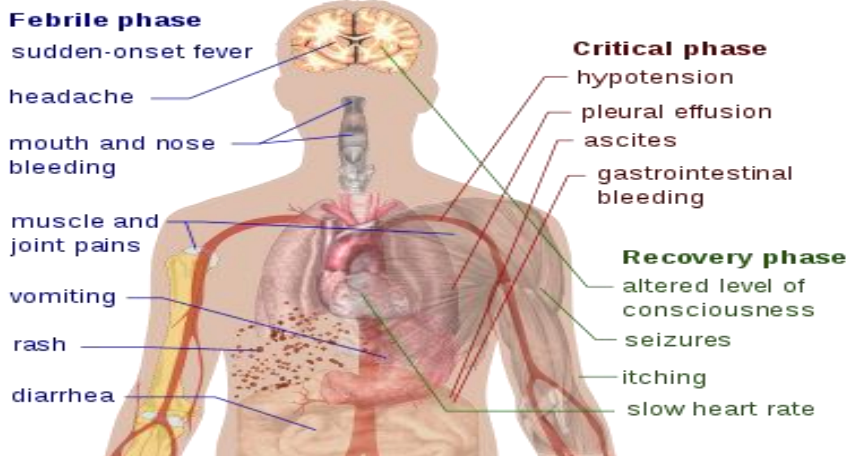
Dengue Cases by Year: 2004-2024, Jamaica



Reported suspected, probable and confirmed dengue with symptom onset in week 34 of 2024

	2024*	
	EW 34	YTD
Total Suspected, Probable & Confirmed Dengue Cases	7	1613
Lab Confirmed Dengue cases	0	39
CONFIRMED Dengue Related Deaths	0	1

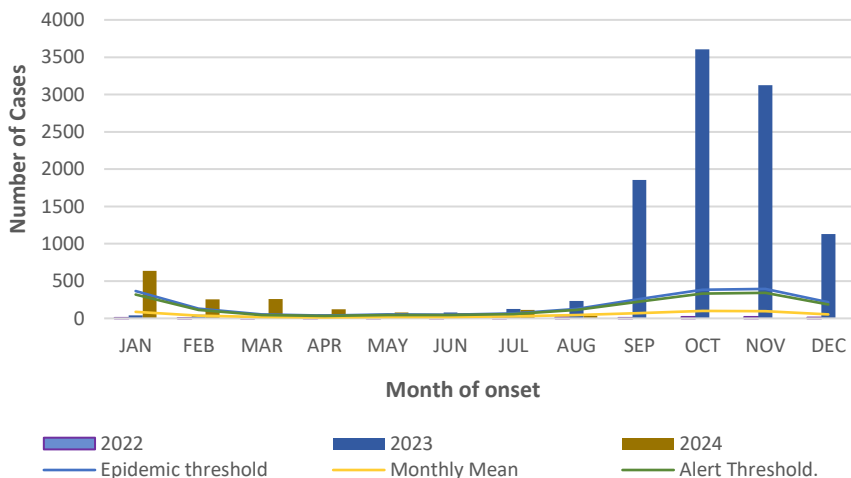
Symptoms of Dengue fever



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at September 3, 2024
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected, probable and confirmed 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



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SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

Abstract

NHRC-23-O14

Association between sleep duration, hypertension and PCOS in women from the UK Biobank: a case control study

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Objectives: To investigate the association between sleep duration and polycystic ovarian syndrome (PCOS) and the association between sleep duration and hypertension among women from the United Kingdom (UK) Biobank.

Methods: We conducted a case-control study of women aged 40-70 years with and without PCOS from the UK Biobank. Self-reported sociodemographic data, sleep duration and hypertension status were obtained. The association between sleep duration and PCOS and sleep duration and hypertension were assessed using multivariable logistic regression models.

Results: Analyses included 727 women (420 with PCOS, mean age \pm SD 46.1 \pm 5.2 years; 307 without PCOS, mean age \pm SD 52.2 \pm 7.0 years; 93.7% were of White European and 1.4% were of African-Caribbean origin. Short (≤ 6 hours), adequate (7-8 hours), and long (≥ 9 hours) sleep duration was reported in 25.0% vs 28.3%; 69.5% vs 68.4%, and 5.5% vs 3.3% of women with vs those without PCOS. Prevalence of hypertension was 20.2% (PCOS) vs. 17.3% (without PCOS). In multivariable models with PCOS as the outcome and adjusted for age, BMI, and hypertension, there was no association between sleep duration and PCOS (OR 1.01, 95% CI 0.68-1.51, $p=0.965$ for short sleep duration; OR 1.36, 95% CI 0.56-3.32 $p=0.494$ for long sleep duration). PCOS was inversely associated with age and directly associated with BMI. In models with hypertension as the outcome, long sleep duration was independently associated with hypertension (OR: 2.46; 95% CI: 1.1-5.6, $p=0.030$) after adjusting for age and BMI.

Conclusions: Long sleep duration was an independent risk factor for hypertension in women from the UK Biobank. No association was found between sleep duration and PCOS.



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



HOSPITAL
ACTIVE
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30 sites. Actively
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REPORT- 78 sites.
Automatic reporting