

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Food Fortification



Fortification is the practice of deliberately increasing the content of one or more micronutrients (i.e., vitamins and minerals) in a food or condiment to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health. As well as increasing the nutritional content of staple foods, the addition of micronutrients can help to restore the micronutrient content lost during processing. Fortification is an evidence-informed intervention that contributes to the prevention, reduction and control of micronutrient deficiencies. It can be used to correct a demonstrated micronutrient deficiency in the general population (mass or large-scale fortification) or in specific population groups (targeted fortification) such as children, pregnant women and the beneficiaries of social protection programmes. When the vitamins and minerals are not added to the foods during the processing but just before consumption at home or at schools or child-care facilities, it is called point-of-use fortification.

In addition to the micronutrient deficiencies, policies and implementation programmes for fortification need to consider an alignment with policies for the reduction of diet-related noncommunicable diseases. Such is the case of salt iodization, which builds on sodium consumption and, as result, needs to consider strategies for sodium intake reduction. The World Health Organization recommends large scale food fortification as a powerful evidence-informed and cost-effective intervention to fight vitamin and mineral deficiencies, including iodine deficiency disorders, anaemia and iron deficiency, among others. Recommendations in all settings include:

- universal salt iodization
- fortification of maize flour, corn meal, wheat flour and rice with vitamins and minerals.

For children living in different settings:

- micronutrient powders containing iron for point-of-use fortification of foods for infants and young children 6–23 months old or children 2–12 years.

Mandatory food fortification occurs when governments legally oblige food producers to fortify particular foods or categories of foods with specified micronutrients, providing high certainty over time that they will contain a predetermined amount. Voluntary fortification occurs when a food manufacturer freely chooses to fortify particular foods in response to permission given in food law as a means to increase their brand value. Globally, mandatory regulations are most often applied to the fortification of food with micronutrients such as iodine, iron, vitamin A and folic acid. Of these, the iodization of salt is the most widely implemented globally.

Taken from WHO website on 24/ June /2024

https://www.who.int/health-topics/food-fortification#tab=tab_1

https://www.who.int/health-topics/food-fortification#tab=tab_2

EPI WEEK 24



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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 – 21 to 24 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													
21	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
22	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
23	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
24	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

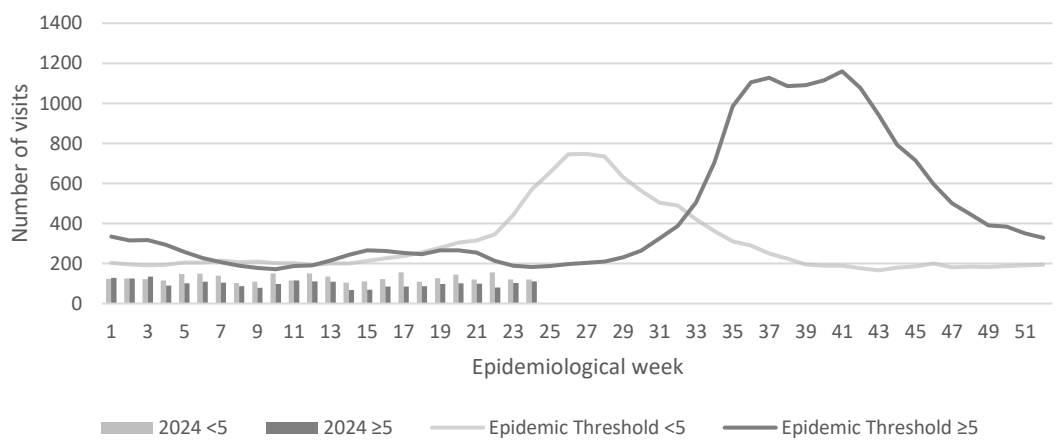
REPORTS FOR SYNDROMIC SURVEILLANCE

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



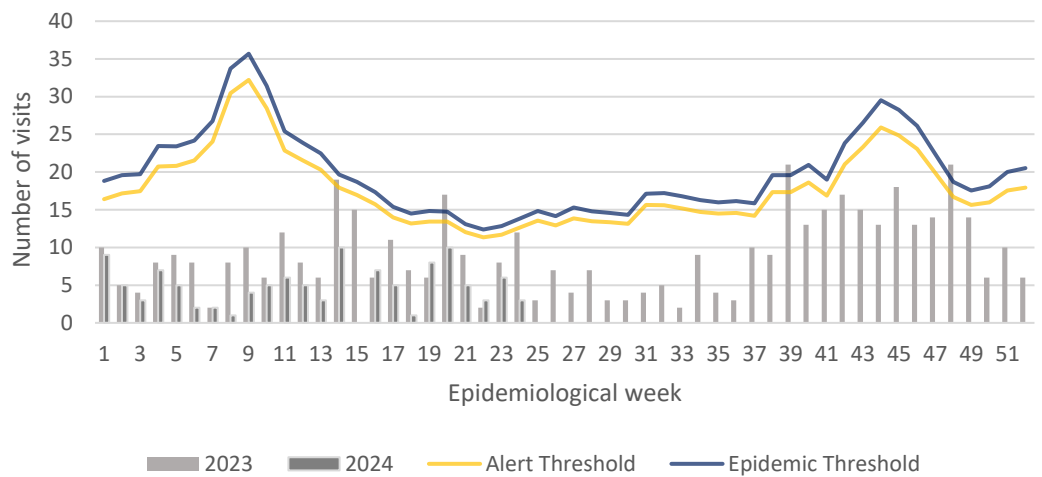
SENTINEL REPORT- 78 sites. Automatic reporting

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

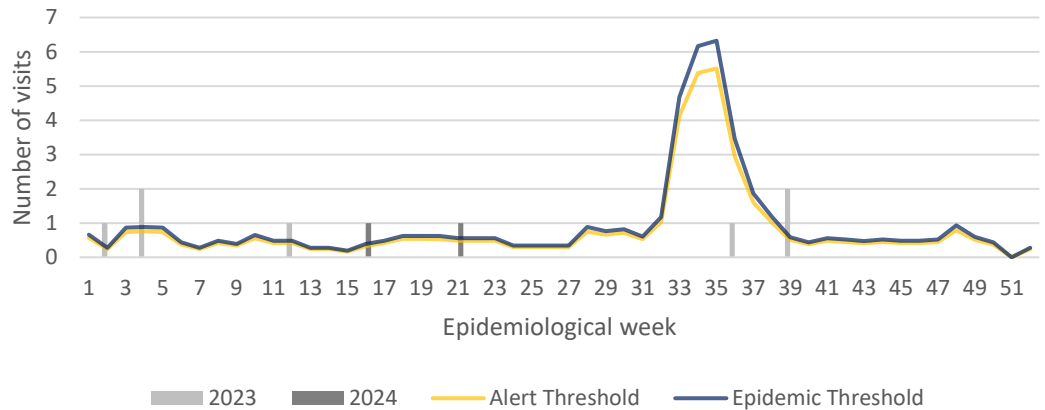


FEVER AND HAEMORRHAGIC

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



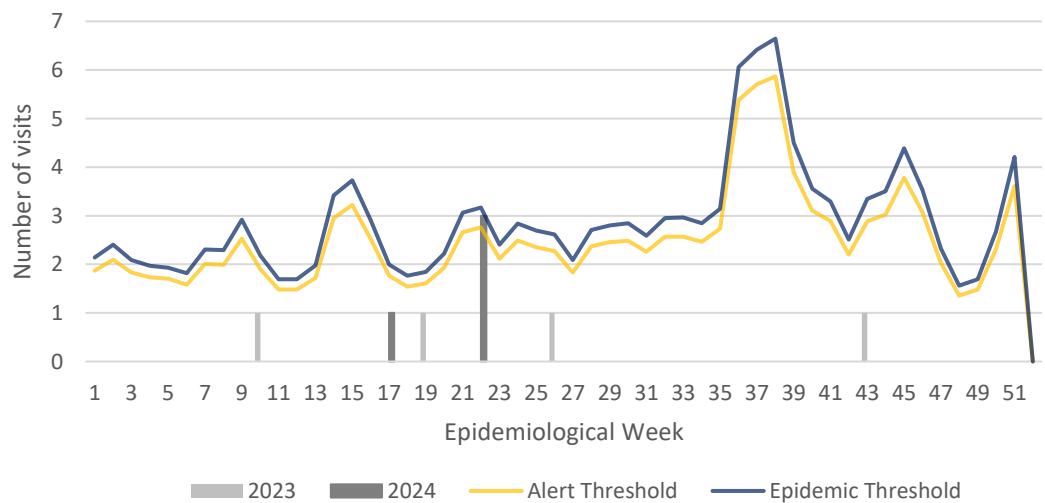
FEVER AND JAUNDICE

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



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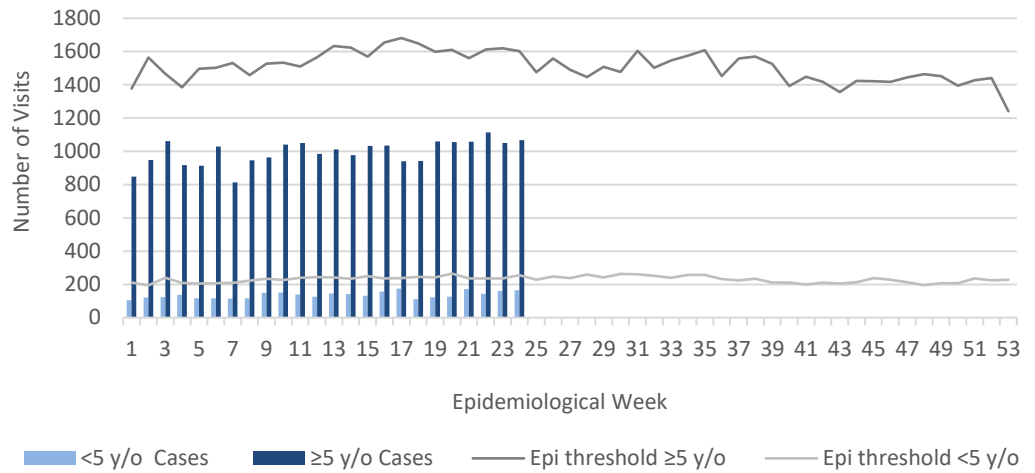


ACCIDENTS

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

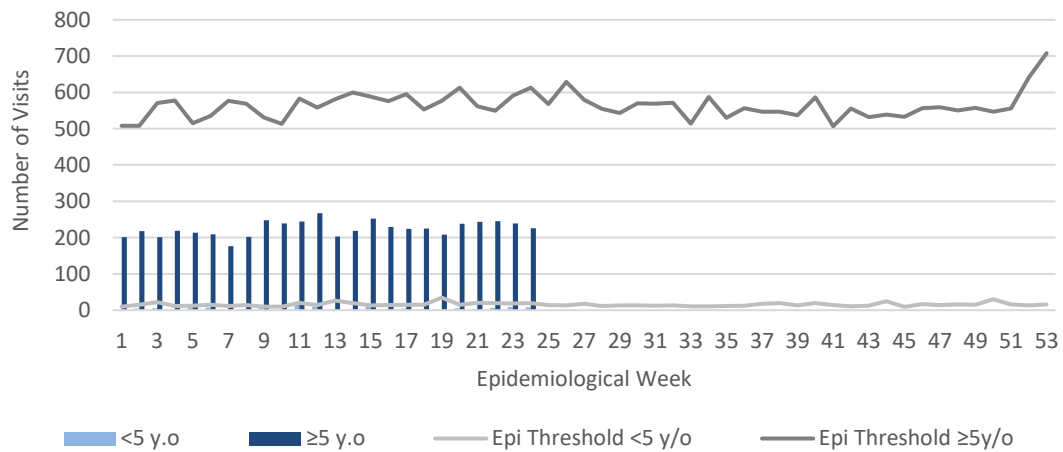


VIOLENCE

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

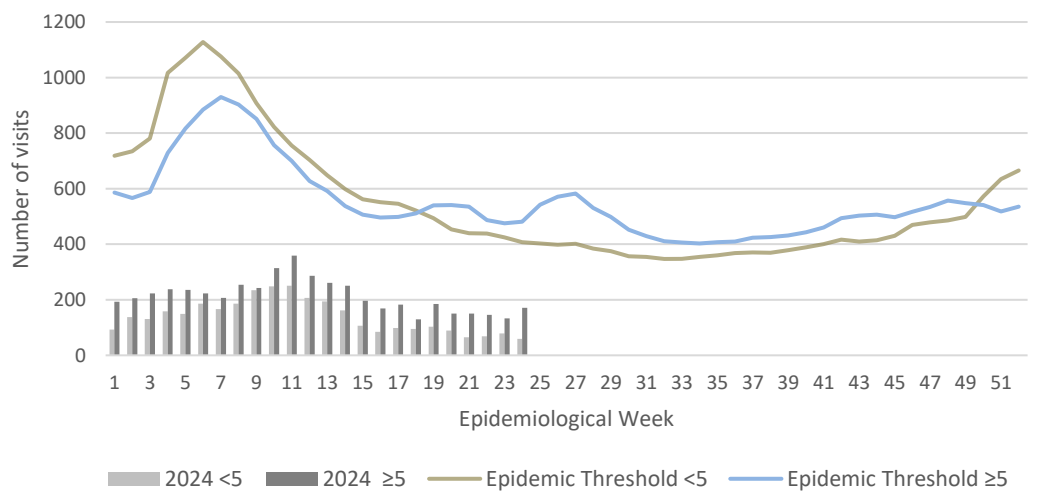


GASTROENTERITIS

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



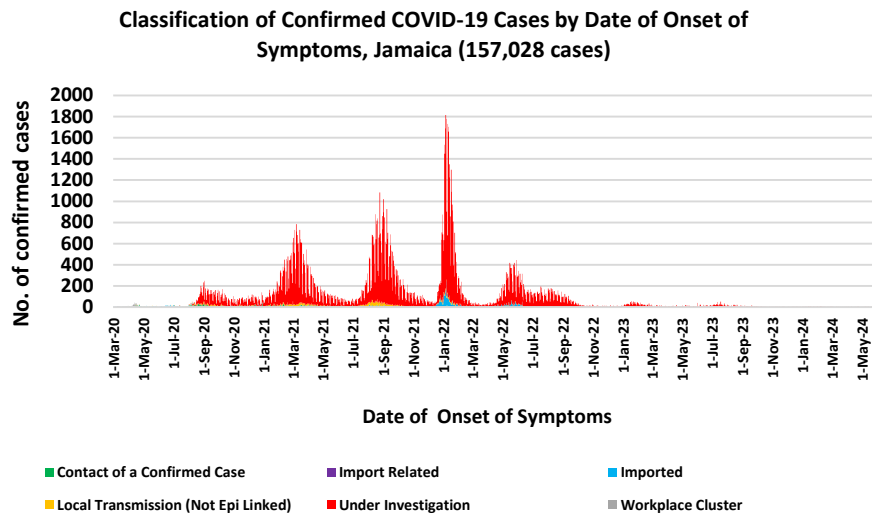
CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2024	PREVIOUS YEAR 2023		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	187 ^β	175 ^β	AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 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)	269	2384		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	9	41		
	Hepatitis C	1	18		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	9	17		
	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	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	28	27		
	Ophthalmia Neonatorum	68	75		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	10	34		
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 24	Total
Confirmed	40	157028
Females	20	90489
Males	20	66536
Age Range	2 months to 96 years old	1 day to 108 years

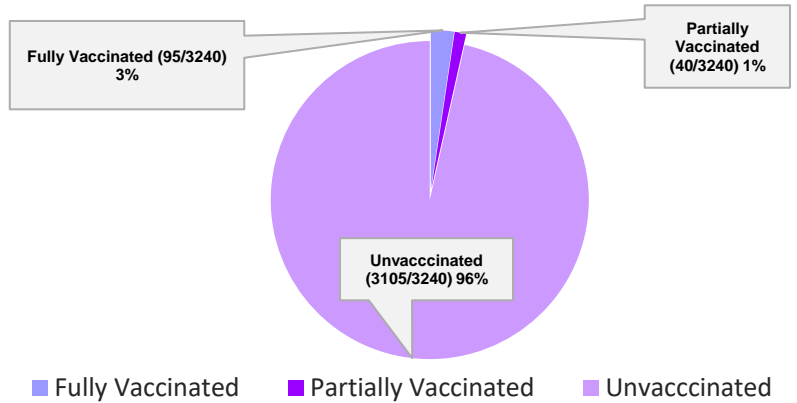
* 3 positive cases had no gender specification
 * PCR or Antigen tests are used to confirm cases
 * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

Outcomes	EW 24	Total
ACTIVE *2 weeks*		53
DIED – COVID Related	0	3802
Died - NON COVID	0	370
Died - Under Investigation	0	196
Recovered and discharged	0	103226
Repatriated	0	93
Total		157028

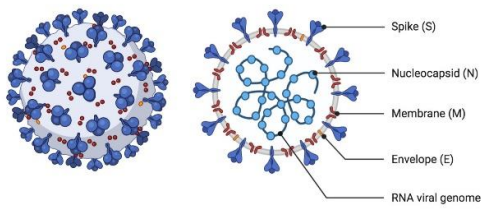
3233 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

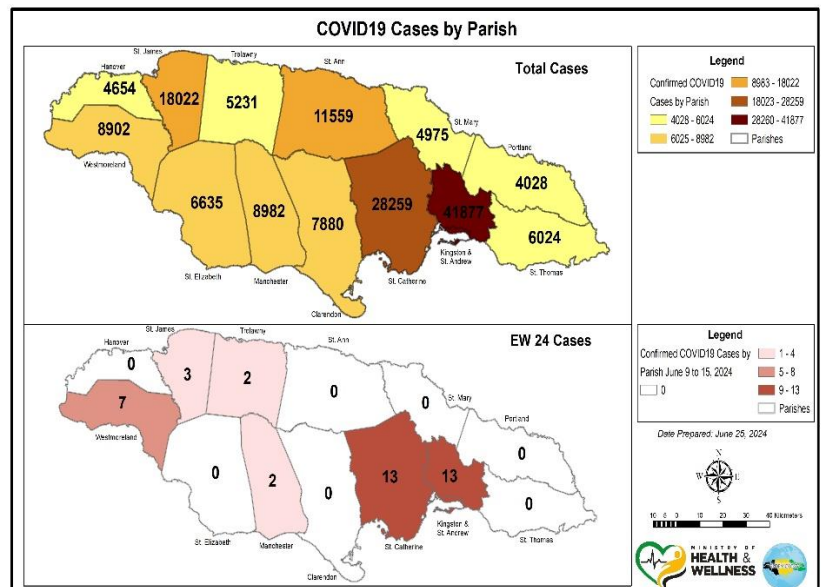
COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW 21-24, 2024

Epi Week	Confirmed Cases	Deaths
21	37 600	425
22	30 600	460
23	32 800	409
24	33 800	397
Total (4weeks)	134 800	1691



6 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



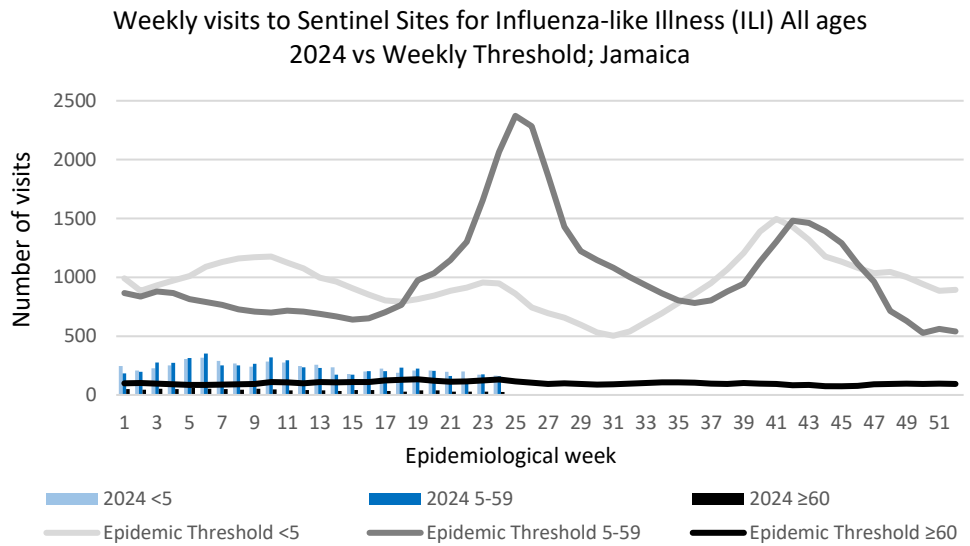
SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 24

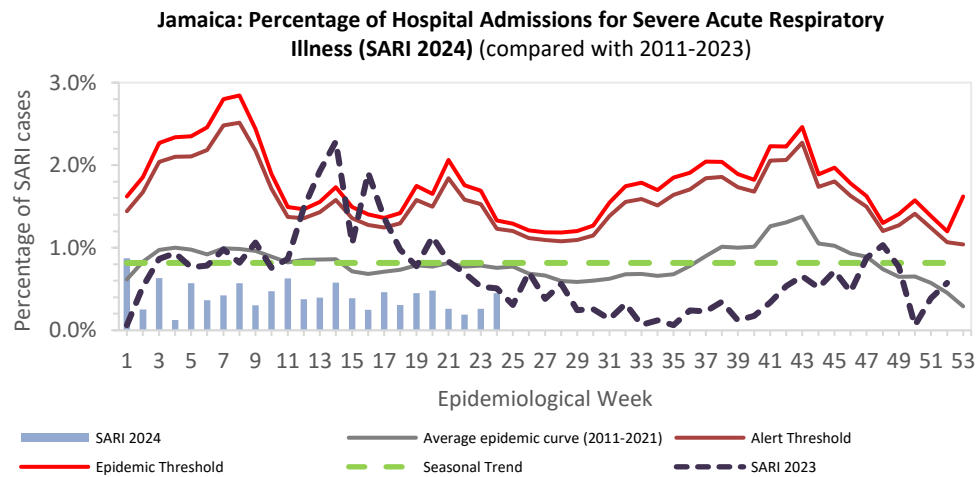
June 9, 2024 – June 15, 2024 Epidemiological Week 24

	EW 24	YTD
SARI cases	7	160
Total Influenza positive Samples	0	85
Influenza A	0	83
H3N2	0	26
H1N1pdm09	0	57
Not subtyped	0	0
Influenza B	0	2
B lineage not determined	0	0
B Victoria	0	2
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	28



Epi Week Summary

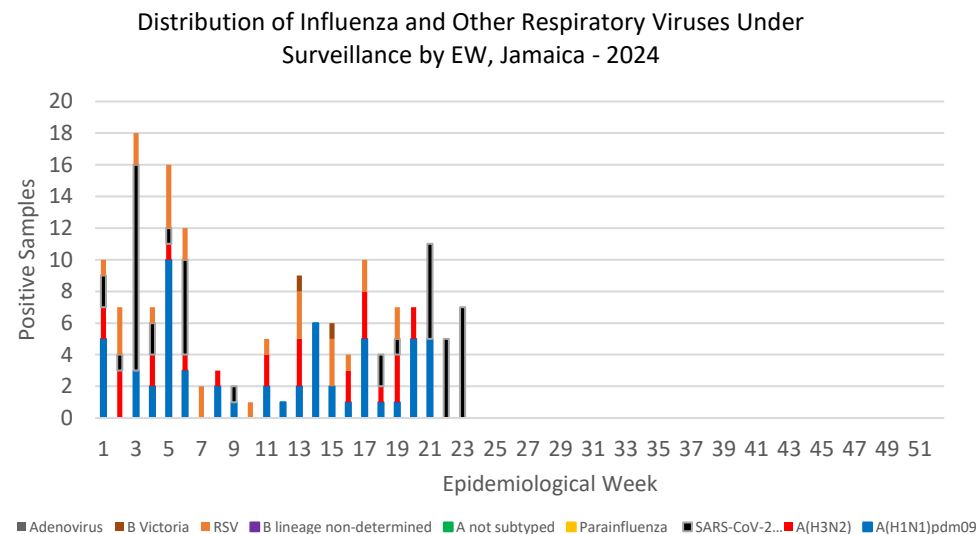
During EW 24, seven (7) SARI admissions were reported.



Caribbean Update EW 24

Caribbean: ILI cases have increased, associated with a higher proportion of positive cases of SARS-CoV-2 and influenza. On the other hand, although SARI cases have remained at low level, there has been an increase in the proportion of positive cases of SARS-CoV-2. Influenza activity has remained at intermediate levels during the last four EWs. During this period, the predominant viruses have been type A(H3N2), with concurrent circulation of influenza A(H1N1)pdm09. RSV activity has remained low. SARS-CoV-2 activity has shown a marked increase in the last two weeks, reaching elevated levels compared to previous waves. **By country:** Influenza activity has been observed over the last four EWs in the Dominican Republic, Jamaica, Guyana, and the Cayman Islands. SARS-CoV-2 activity was noted in Jamaica, Saint Lucia, Suriname, 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

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

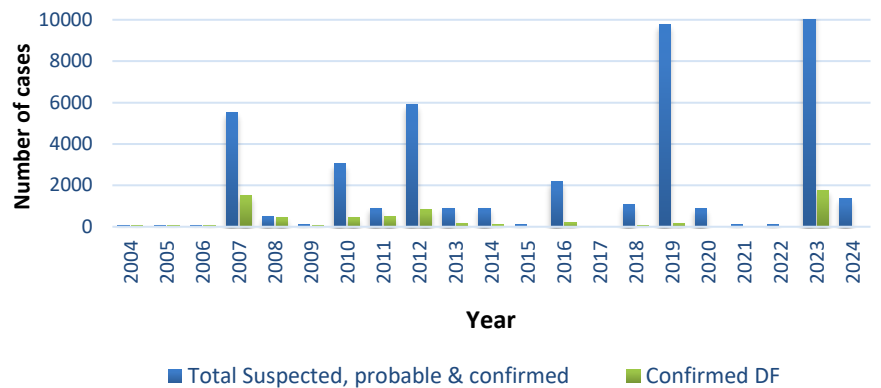
Dengue Bulletin

June 9, 2024 – June 15, 2024 Epidemiological Week 24

Epidemiological Week 24



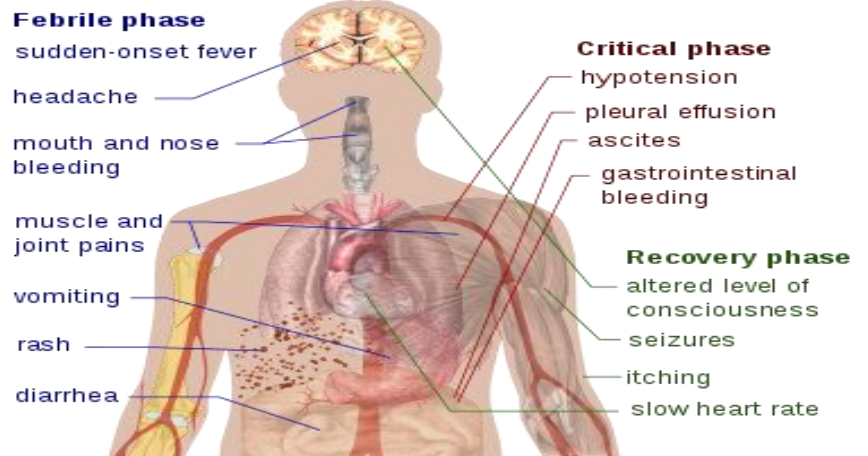
Dengue Cases by Year: 2004-2024, Jamaica



Reported suspected, probable and confirmed dengue with symptom onset in week 24 of 2024

	2024*	
	EW 24	YTD
Total Suspected, Probable & Confirmed Dengue Cases	0	1359
Lab Confirmed Dengue cases	0	5
CONFIRMED Dengue Related Deaths	0	0

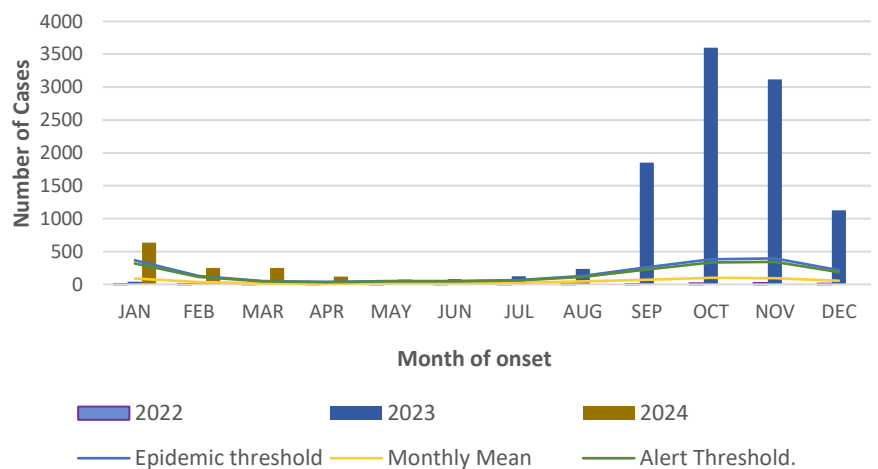
Symptoms of Dengue fever



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at June 25, 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-O04

The Association between Social Factors and the Prevalence of Diabetes Mellitus in Urban Jamaica

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Objective: To evaluate the associations of social support, education, and community property value with prevalent diabetes mellitus (DM) in urban Jamaica.

Methods: A secondary cross-sectional analysis was conducted using data collected in 2018 – 2019 from the Cardiovascular Health in Urban Communities Study. Height, weight, blood pressure and fasting blood glucose were measured. Education, doctor-diagnosed diabetes and hypertension were self-reported. Data on community property value were obtained from the National Land Agency. Social support (SS) was determined from responses on the number of friends: 1) in their social network, 2) willing to offer a small loan, and 3) who provide advice. Summary statistics and prevalence estimates were determined. Multivariable logistic regression was used to assess the association between social factors and prevalent DM. Statistical significance was defined as $p < 0.05$.

Results: The analyzed sample consisted of 763 participants (512 females, 251 males) with mean(SD) age of 47.9 (18.3) years. Overall prevalence of DM was 17.5% (95% CI: 15%-20%). Males who attained more than high school education were less likely to have DM (OR=0.24; $p=0.028$). Among females; older age (OR=1.03; $p=0.001$), higher BMI (OR=1.03; $p=0.007$), and hypertension (OR=3.40; $p=0.001$) were associated with higher odds of DM. No associations were found with SS or community property value.

Conclusion: Higher educational attainment was inversely associated with DM in urban Jamaica, but social factors such as community property value and SS were not. Further research is warranted to explore these associations in rural settings and their impact on other outcomes including diabetes complications and survivorship.



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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.
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