

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Heat and Health



Population exposure to heat is increasing due to climate change, and this trend will continue. Globally, extreme temperature events are observed to be increasing in their frequency, duration, and magnitude. Extended periods of high day and nighttime temperatures create cumulative physiological stress on the human body which exacerbates the top causes of death globally, including respiratory and cardiovascular diseases, diabetes mellitus and renal disease. Heatwaves can acutely impact large populations for short periods of time, often trigger public health emergencies, and result in excess mortality, and cascading socioeconomic impacts (e.g. lost work capacity and labor productivity). They can also cause loss of health service delivery capacity, where power-shortages which often accompany heatwaves disrupt health facilities, transport, and water infrastructure.

Who is affected?

Rising global ambient temperatures affect all populations. However, some populations are more exposed to, or more physiologically or socio-economically vulnerable to physiological stress, exacerbated illness, and an increased risk of death from exposure to excess heat. These include the elderly, infants and children, pregnant women, outdoor and manual workers, athletes, and the poor. Gender can play an important role in determining heat exposure

How does heat impact health?

Heat gain in the human body can be caused by a combination of external heat from the environment and internal body heat generated from metabolic processes. Rapid rises in heat gain due to exposure to hotter than average conditions compromises the body's ability to regulate temperature and can result in a cascade of illnesses, including heat cramps, heat exhaustion, heatstroke, and hyperthermia. Even small differences from seasonal average temperatures are associated with increased illness and death. Temperature extremes can also worsen chronic conditions, including cardiovascular, respiratory, and cerebrovascular disease and diabetes-related conditions. Heat also has important indirect health effects. Heat conditions can alter human behavior, the transmission of diseases, health service delivery, air quality, and critical social infrastructure such as energy, transport, and water. The scale and nature of the health impacts of heat depend on the timing, intensity and duration of a temperature event, the level of acclimatization, and the adaptability of the local population, infrastructure and institutions to the prevailing climate. The precise threshold at which temperature represents a hazardous condition varies by region, other factors such as humidity and wind, local levels of human acclimatization and preparedness for heat conditions.

Taken from WHO website on 08/ May /2024

<https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health>

EPI WEEK 17



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 – 14 to 17 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												
14	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
15	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
16	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
17	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

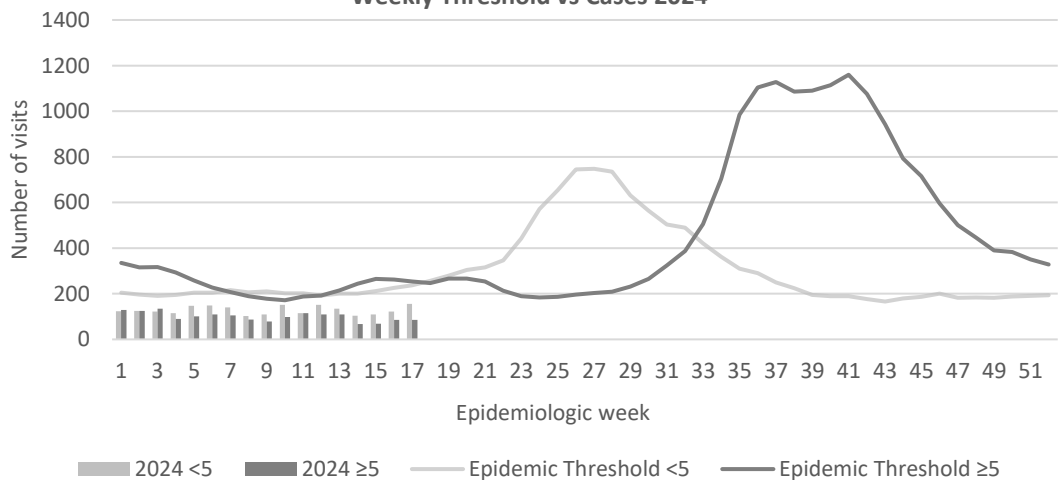
REPORTS FOR SYNDROMIC SURVEILLANCE

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



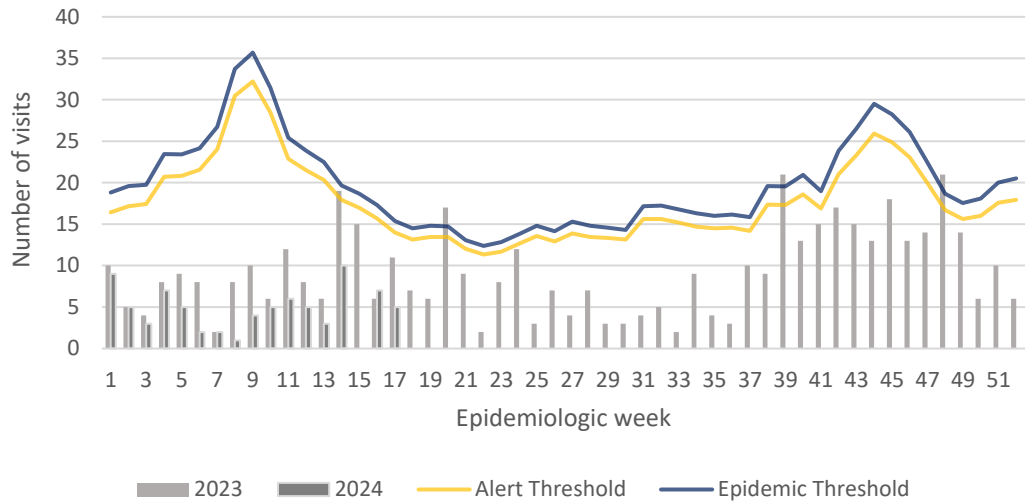
SENTINEL REPORT- 78 sites. Automatic reporting

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

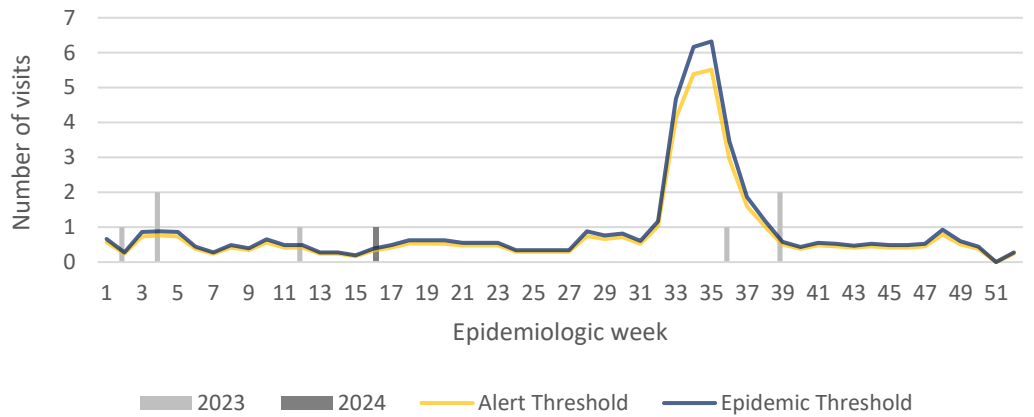


FEVER AND HAEMORRHAGIC

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



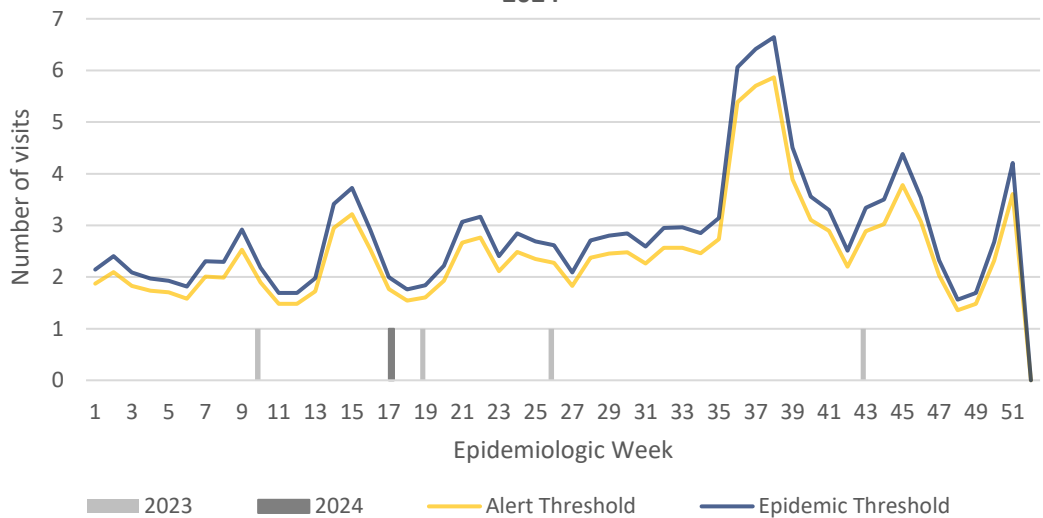
FEVER AND JAUNDICE

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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SENTINEL REPORT- 78 sites. Automatic reporting

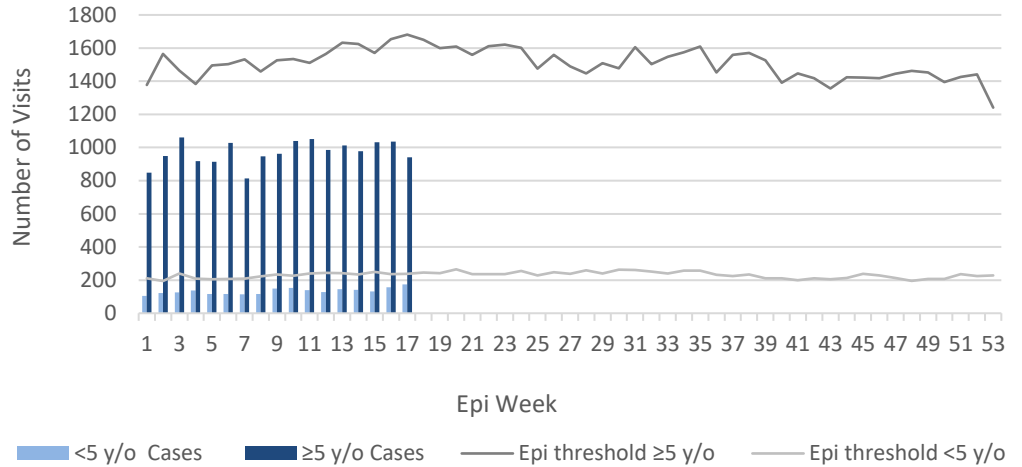


ACCIDENTS

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

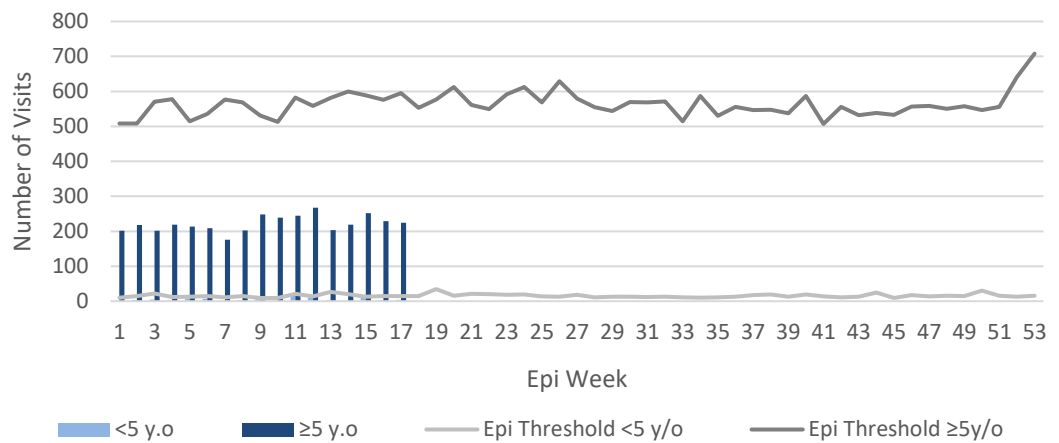


VIOLENCE

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

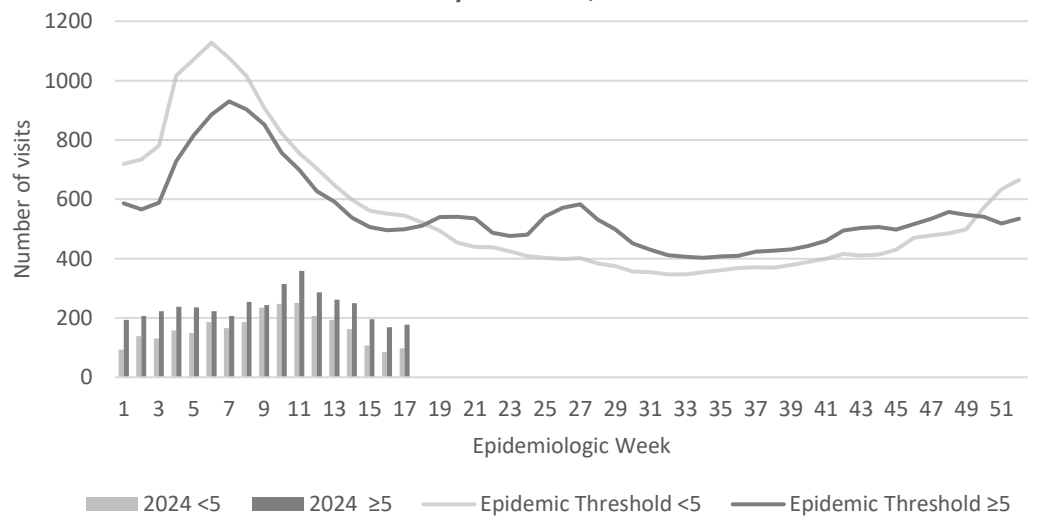


GASTROENTERITIS

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		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	127 ^β	121 ^β	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		
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	175	1953		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	4	33		
	Hepatitis C	1	11		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	8	16		
	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	19	17		
	Ophthalmia Neonatorum	49	45		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	5	26		
Yellow Fever	0	0			
Chikungunya ^ε	0	0			
Zika Virus ^θ	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

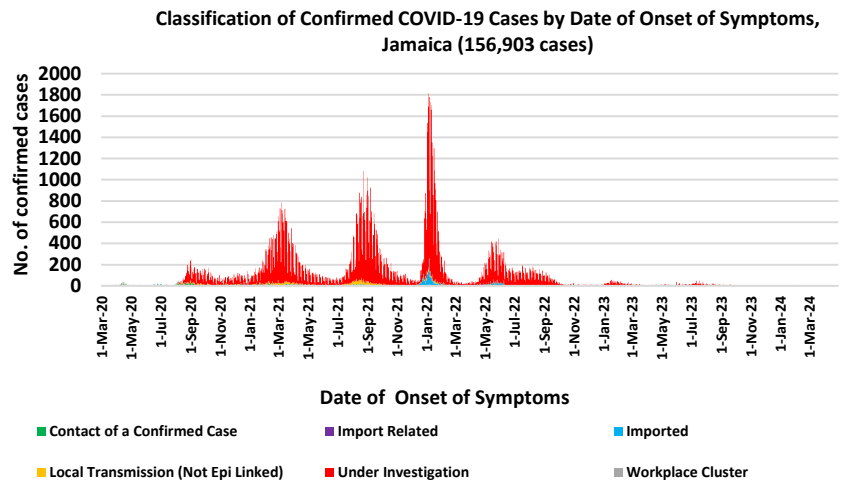


SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

CASES	EW 17	Total
Confirmed	8	156903
Females	2	90419
Males	6	66481
Age Range	18 to 34 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.

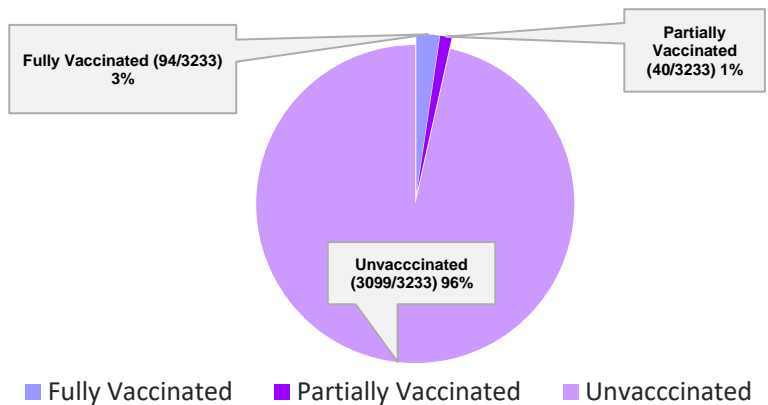


COVID-19 Outcomes

Outcomes	EW 17	Total
ACTIVE *2 weeks*		9
DIED – COVID Related	0	3795
Died - NON COVID	0	370
Died - Under Investigation	0	201
Recovered and discharged	0	103226
Repatriated	0	93
Total		156903

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

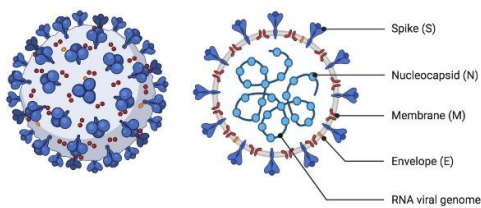
3233 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

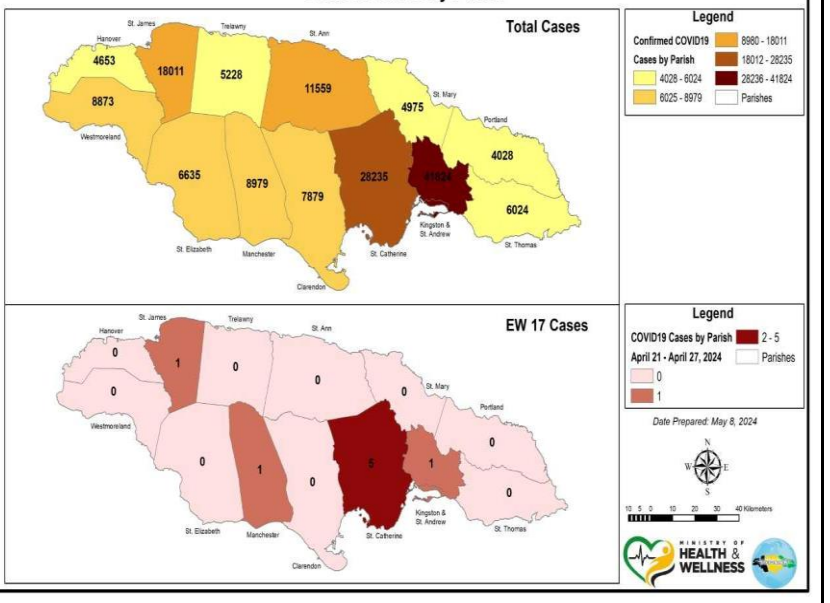
SARS-CoV-2



COVID-19 WHO Global Statistics EW 14-17, 2024

Epi Week	Confirmed Cases	Deaths
14	113,000	927
15	39,700	808
16	40,700	708
17	29,300	498
Total (4weeks)	222,700	2941

COVID19 Cases by Parish



6 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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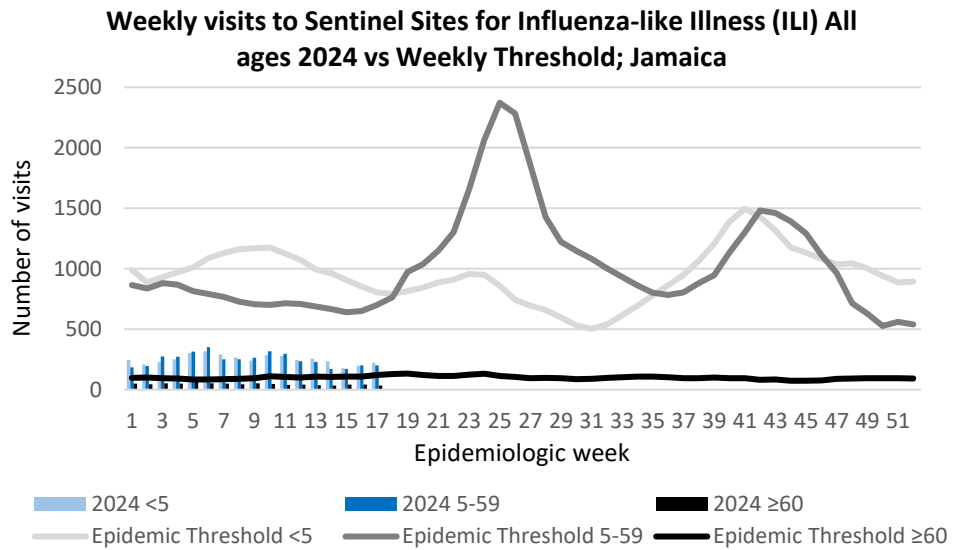


NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 17

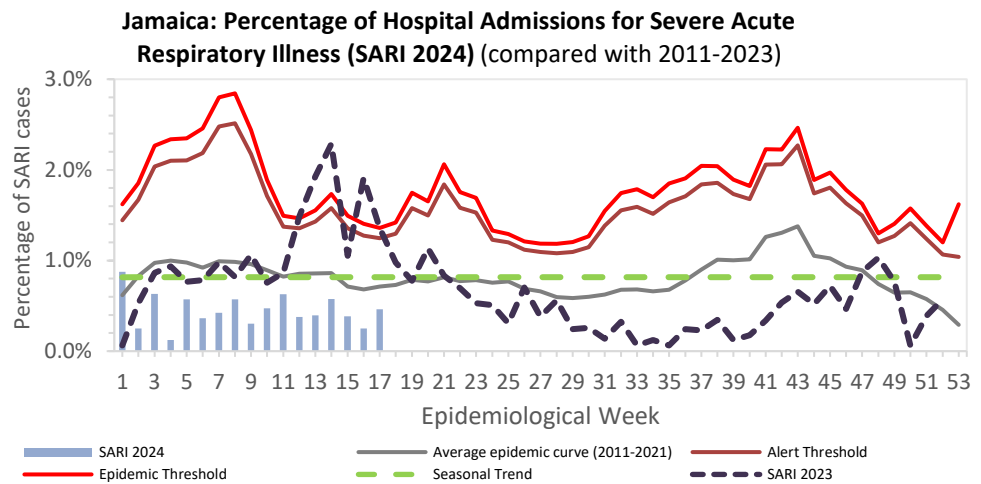
April 21, 2024 – April 27, 2024 Epidemiological Week 17

	EW 17	YTD
SARI cases	7	122
Total Influenza positive Samples	0	57
Influenza A	0	55
H3N2	0	15
H1N1pdm09	0	40
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	21



Epi Week Summary

During EW 17, seven (7) SARI admissions were reported.

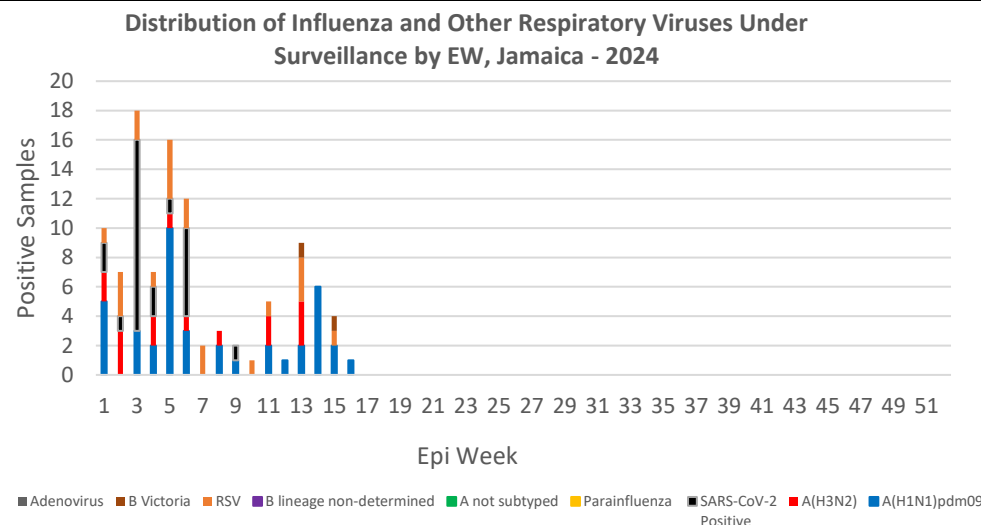


Caribbean Update EW 17

Caribbean: ILI and SARI cases have maintained a downward trend over the last four weeks, primarily involving influenza and to a lesser extent SARS-CoV-2. Influenza activity has been low but fluctuating during this last four EWs. The predominant viruses have been type A(H1N1)pdm09, with concurrent circulation of influenza A(H3N2) and, to a lesser extent, B/Victoria. Both RSV and SARS-CoV-2 activities have remained low.

By country: Influenza activity was noted in Belize, Jamaica, Guyana and the Cayman Islands while SARS-CoV-2 activity was observed in Barbados, Guyana, and Trinidad and Tobago.

(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

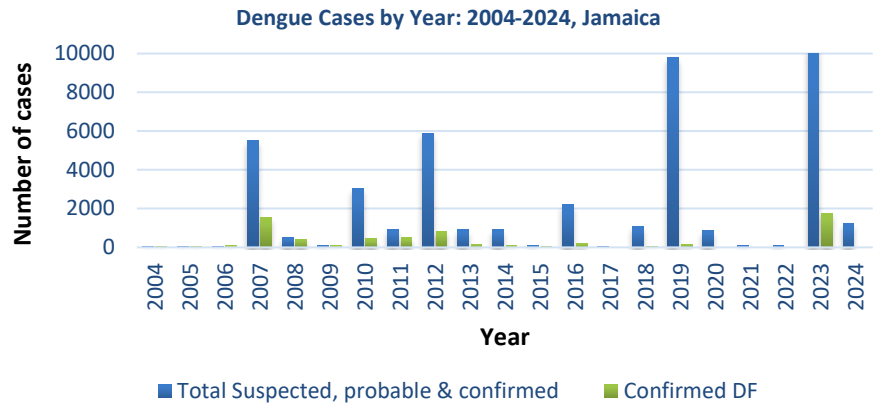
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

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Dengue Bulletin

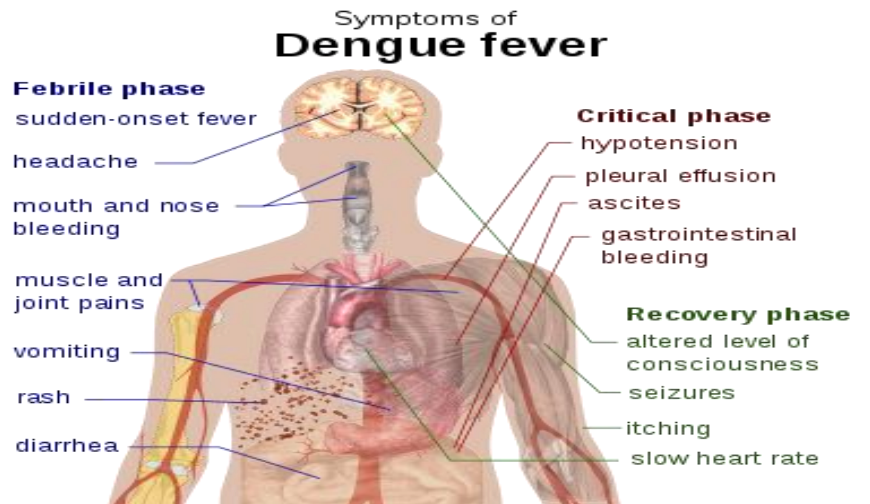
April 21, 2024 – April 27, 2024 Epidemiological Week 17

Epidemiological Week 17



Reported suspected, probable and confirmed dengue with symptom onset in week 17 of 2024

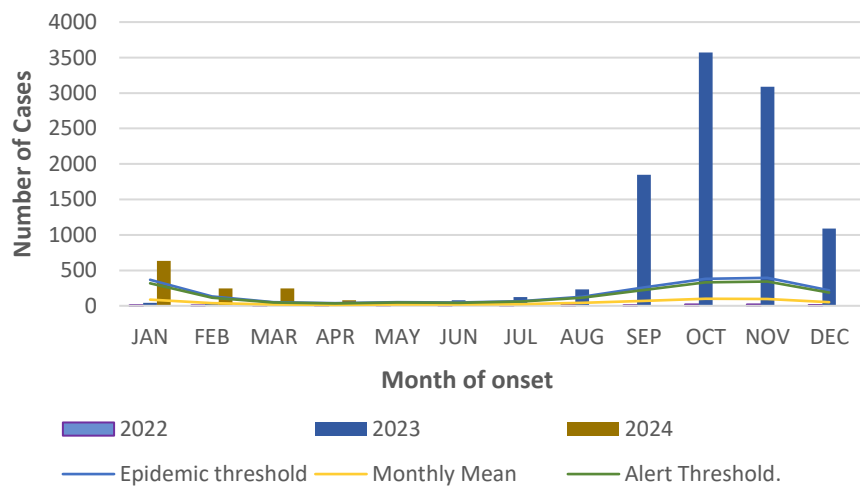
	2024*	
	EW 17	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	6	1223
Lab Confirmed Dengue cases	0	5
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at May 08, 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

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RESEARCH PAPER

Abstract

The Health Club: A Pilot Study of Opportunities and Challenges of a Faith-Based Health Promotion Initiative

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Objectives

With chronic non-communicable diseases being the leading causes of death in Jamaica, health promotion experts grapple with ways to encourage the population to adopt healthier lifestyles. Faith-based institutions present unique opportunities for health promotion due to their widespread reach, especially among rural populations, which tend to see higher prevalence of lifestyle disease. The present study investigates the opportunities and challenges of The Health Club, a faith-based health promotion initiative.

Method

The Club was piloted in a rural church in Jamaica, with the aim of encouraging members to take incremental steps towards lifestyle change in a supportive environment. Seventeen initial members were given a schedule of healthful activities and practices and asked to commit to them for three months. Activities included drinking more water, regular exercise, getting more rest, a focus on mental and spiritual health, along with other practices aligned with normative medical recommendations. To facilitate Club communication, a social media group using WhatsApp, an instant messaging and audio-visual based platform, was formed. A qualitative content analysis of posts to the WhatsApp group was done.

Results

Results revealed that the Health Club facilitated members' desire to begin wholistic healthful practices. Additionally, members reported that the Health Club increased their health literacy and provided necessary social support on the path to lifestyle change. Challenges include lack of financial resources and unsupportive family members.

Conclusion

Faith-based health initiatives offer numerous benefits and opportunities for health promotion towards lifestyle change. These should be further exploited in Jamaica despite the challenges.



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9 NOTIFICATIONS-
 All clinical
 sites



INVESTIGATION
 REPORTS- Detailed Follow
 up for all Class One Events



HOSPITAL
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 REPORT- 78 sites.
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