

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Climate Change



Climate change is impacting human lives and health in a variety of ways. It threatens the essential ingredients of good health – clean air, safe drinking water, nutritious food supply and safe shelter – and has the potential to undermine decades of progress in global health. Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional

deaths per year from malnutrition, malaria, diarrhoea and heat stress alone. The direct damage costs to health are estimated to be between US\$ 2–4 billion per year by 2030. Areas with weak health infrastructure – mostly in developing countries – will be the least able to cope without assistance to prepare and respond.

Climate change is already impacting health in a myriad of ways, including by leading to death and illness from increasingly frequent extreme weather events, such as heatwaves, storms and floods, the disruption of food systems, increases in zoonoses and food-, water- and vector-borne diseases, and mental health issues. Furthermore, climate change is undermining many of the social determinants for good health, such as livelihoods, equality and access to health care and social support structures. These climate-sensitive health risks are disproportionately felt by the most vulnerable and disadvantaged, including women, children, ethnic minorities, poor communities, migrants or displaced persons, older populations and those with underlying health conditions.

WHO data indicates 2 billion people lack safe drinking water and 600 million suffer from foodborne illnesses annually, with children under 5 bearing 30% of foodborne fatalities. Climate stressors heighten waterborne and foodborne disease risks. In 2020, 770 million faced hunger, predominantly in Africa and Asia. Climate change affects food availability, quality and diversity, exacerbating food and nutrition crises. Temperature and precipitation changes enhance the spread of vector-borne diseases. Without preventive actions, deaths from such diseases, currently over 700 000 annually, may rise. Climate change induces both immediate mental health issues, like anxiety and post-traumatic stress, and long-term disorders due to factors like displacement and disrupted social cohesion.

To avert catastrophic health impacts and prevent millions of climate change-related deaths, the world must limit temperature rise to 1.5°C. Past emissions have already made a certain level of global temperature rise and other changes to the climate inevitable. Global heating of even 1.5°C is not considered safe, however; every additional tenth of a degree of warming will take a serious toll on people’s lives and health.

Taken from WHO website on 22/ May /2024

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

EPI WEEK 19



Syndromic Surveillance

Accidents

Violence

Pages 2-4



Class 1 Notifiable Events

Page 5



COVID-19

Page 6



Influenza

Page 7



Dengue Fever

Page 8



Research Paper

Page 9

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 – 16 to 19 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												
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
18	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
19	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time

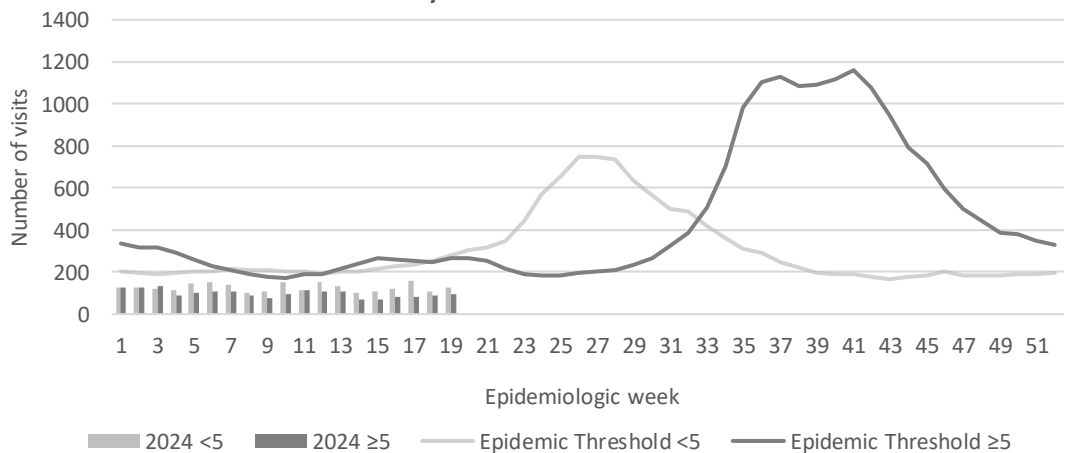
REPORTS FOR SYNDROMIC SURVEILLANCE

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



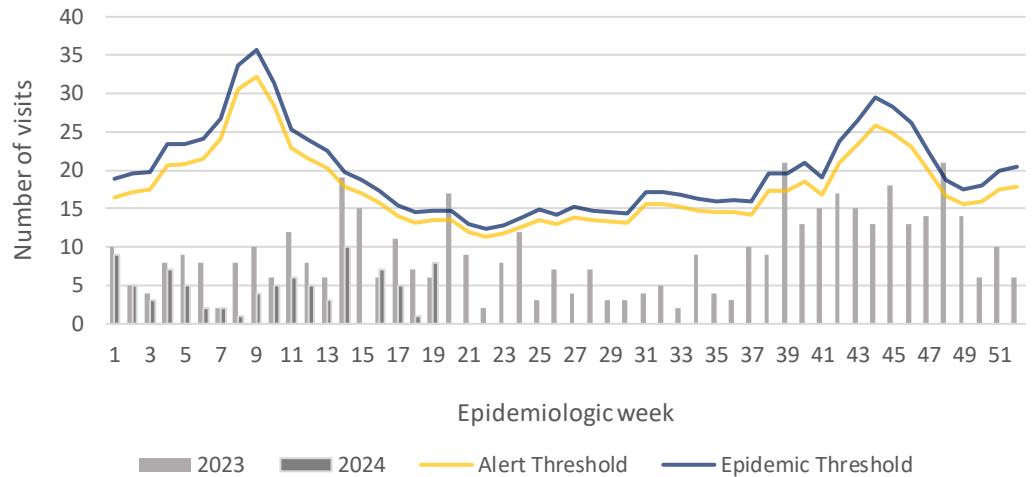
SENTINEL REPORT- 78 sites. Automatic reporting

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

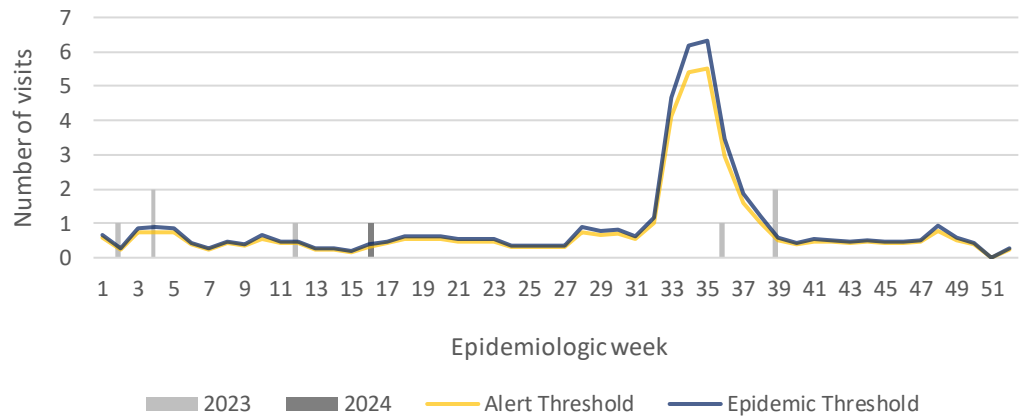


FEVER AND HAEMORRHAGIC

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



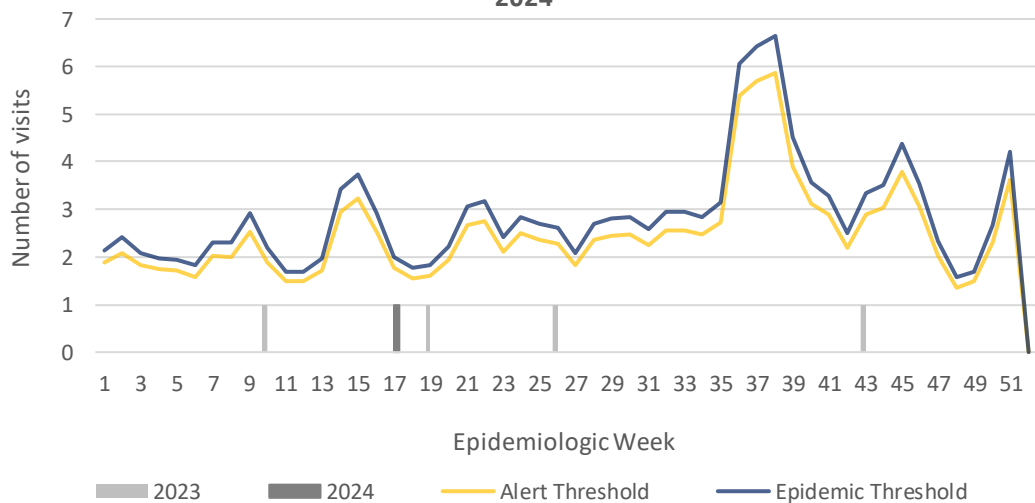
FEVER AND JAUNDICE

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



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

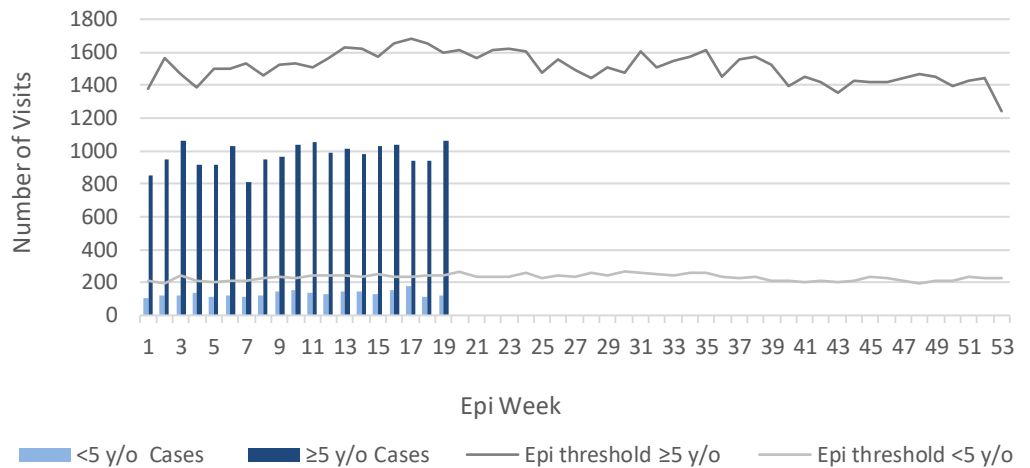


ACCIDENTS

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

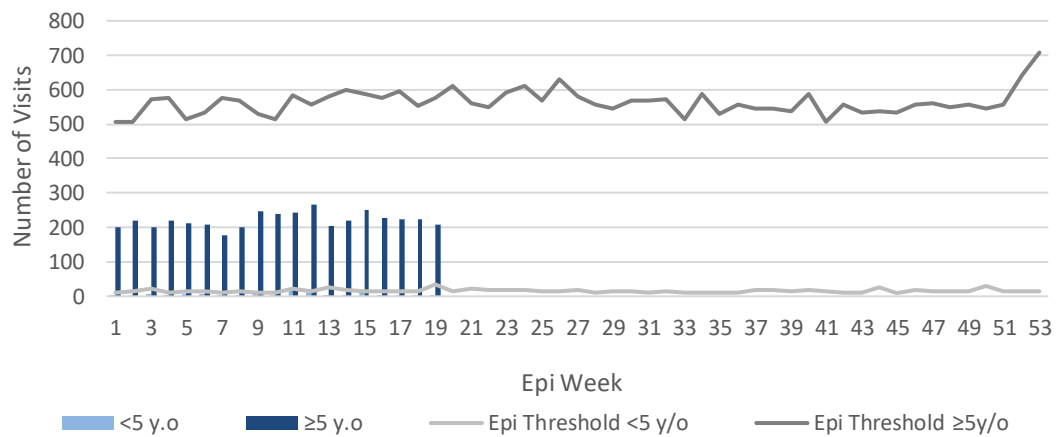


VIOLENCE

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

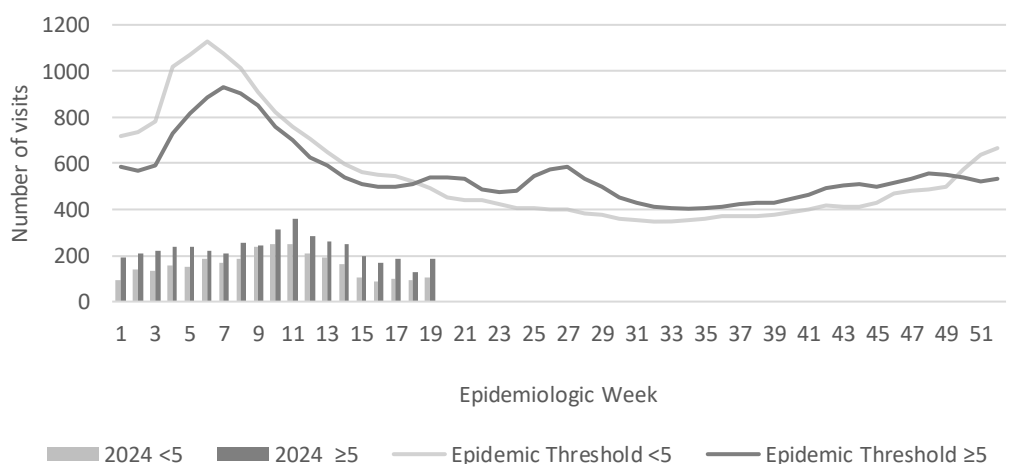


GASTROENTERITIS


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



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting



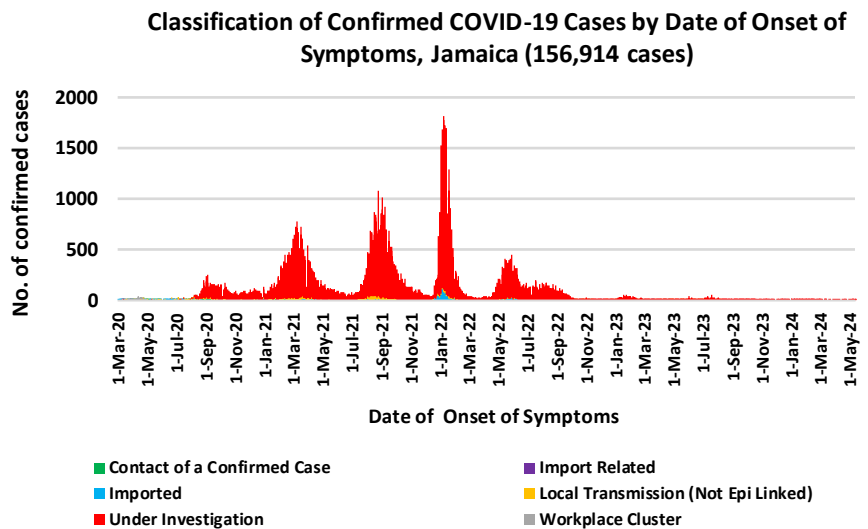
CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2024	PREVIOUS YEAR 2023		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	135 ^β	121 ^β	AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 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		
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	184	2067		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	4	39		
	Hepatitis C	1	13		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	8	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	22	18		
	Ophthalmia Neonatorum	49	49		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	5	29		
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>
--	--	--	--

COVID-19 Surveillance Update

CASES	EW 19	Total
Confirmed	6	156914
Females	3	90425
Males	3	66486
Age Range	15 years to 76 years old	1 day to 108 years

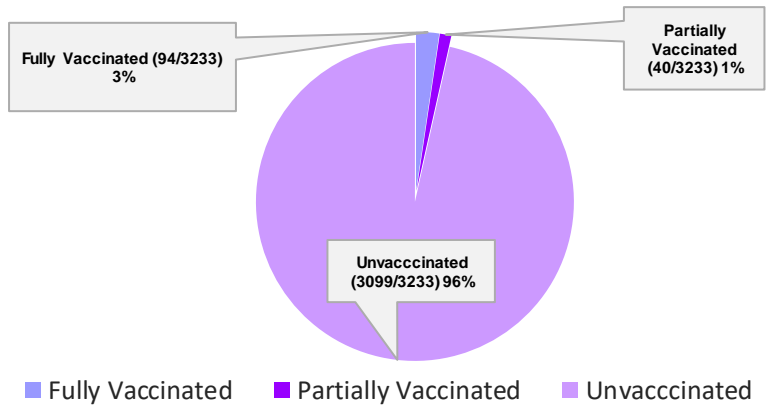
* 3 positive cases had no gender specification
 * PCR or Antigen tests are used to confirm cases
 * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

Outcomes	EW 19	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		156914

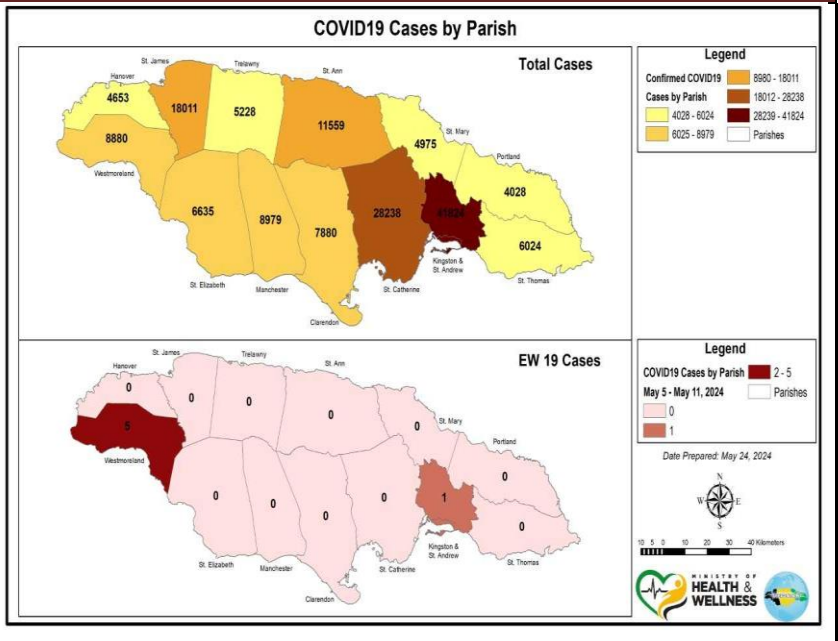
3233 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW 16-19, 2024

Epi Week	Confirmed Cases	Deaths
16	39 400	760
17	32 300	622
18	34 100	493
19	29 600	425
Total (4weeks)	135, 400	2300

<p>6 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>
---	--	--	--

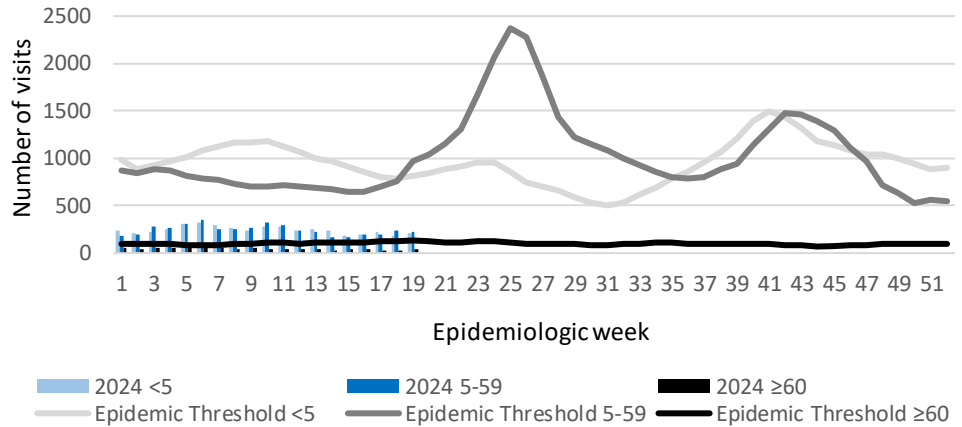
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 19

May 5, 2024 – May 11, 2024 Epidemiological Week 19

	EW 19	YTD
SARI cases	7	134
Total Influenza positive Samples	0	60
Influenza A	0	58
H3N2	0	17
H1N1pdm09	0	41
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	24

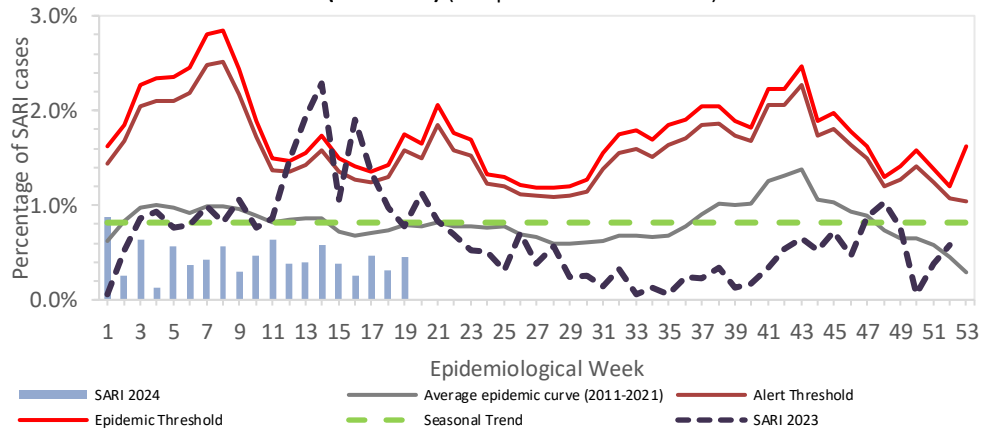
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 19, seven (7) SARI admissions were reported.

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



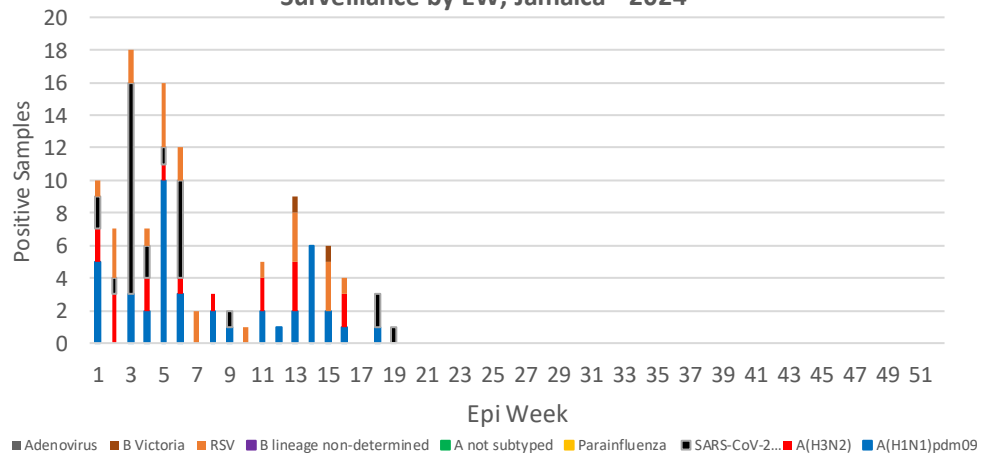
Caribbean Update EW 19

Caribbean: ILI and SARI cases have continued to decline over the past four weeks, with most positive cases attributed to influenza and to a lesser extent SARS-CoV-2. Influenza activity has fluctuated at low levels over the past four EWs. During this period the predominant viruses have been type A(H3N2), with concurrent circulation of influenza A(H1N1)pdm09 and, to a lesser extent, B/ Victoria. RSV activity has remained low. SARS-CoV-2 activity has shown a marked increase over the past two weeks.

By country: Influenza activity has been observed over the past four EWs in Belize, Guyana and the Cayman Islands. SARS-CoV-2 activity was been noted in Barbados, and the Cayman Islands.

(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



7 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

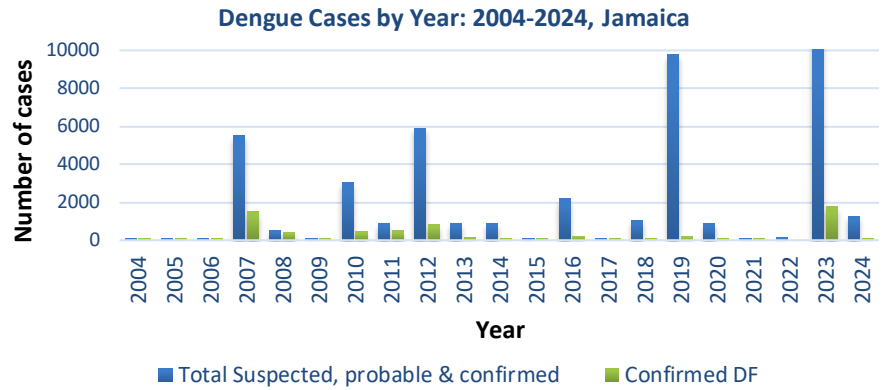
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting


Dengue Bulletin

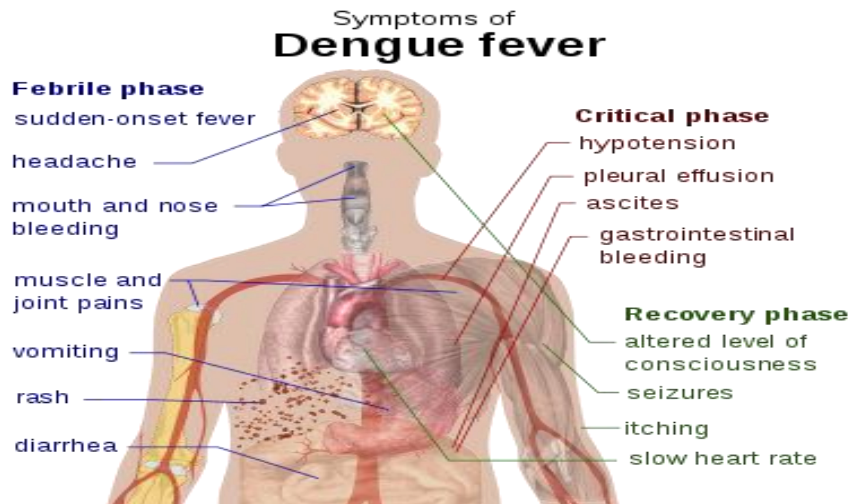
May 5, 2024 – May 11, 2024 Epidemiological Week 19

Epidemiological Week 19



Reported suspected, probable and confirmed dengue with symptom onset in week 19 of 2024

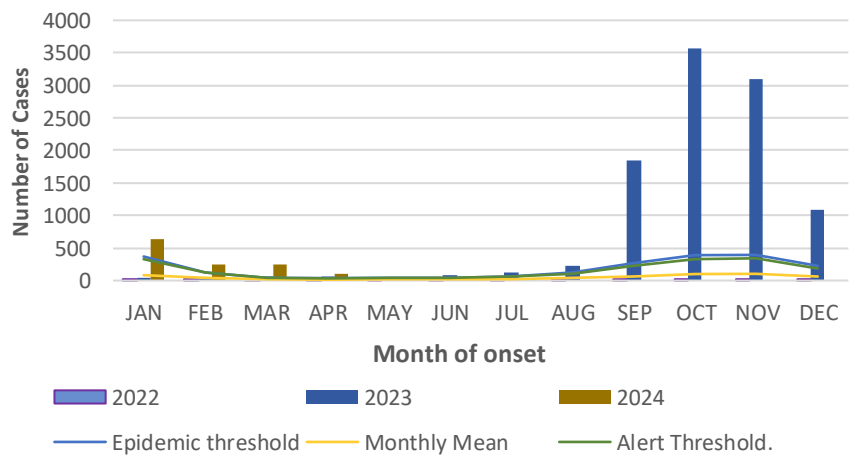
	2024*	
	EW 19	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	1	1266
Lab Confirmed Dengue cases	0	5
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at May 22, 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

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

Abstract

RETROSPECTIVE REVIEW OF CHEMICAL BURNS IN JAMAICA 2015-2018

R. Venugopal¹, S. Moore¹, J. Jones¹, C. Neblett¹, R. Thomas¹, M. Johnson¹, M. Wanliss¹, L Logan, G Williams, K Appiah, R. Arscott and G. Arscott¹

¹Department of Plastic & Reconstructive Surgery, University Hospital of the West Indies, Kingston, Jamaica.

Objectives: *The observation of a resurgence of chemical assault has stimulated the documentation of burn admissions at tertiary hospitals in Jamaica. We aim to bring about public awareness of the incidence, look at the impact of these injuries on health care and also evaluate the need for better legislature and control of corrosive agents.*

Method: *A retrospective review of the medical records between January 1st, 2015 and December 31st, 2018 was done to obtain data. The parameters recorded were: age, sex, circumstance of injury (accidental vs assault), burnt surface area, anatomical pattern of burn injury, length of hospital admission and the hospital charges (where applicable). Also, a telephone or outpatient interview was conducted with the victims to evaluate productivity and justice dispensed.*

Results: *There was a total of 547 admissions for burns during this time, 86 of which were for chemical burns accounting for 15.7% of all admissions. Assault accounted for 52.7% of the injuries; the majority of the burns were distributed to the face and upper limbs. 47.8% of these admissions required surgery as compared to the other burn types where surgery was needed in 14.2 % of cases. Of the victims who were assaulted using a chemical, only 2 cases are currently before the court. One patient has successfully returned to employment, the other sited inability to return to work after injury due to functional deficits or the disfiguring nature of injury.*

Conclusion: *The incidence of assault using chemicals have remained consistently high in the last 20 years. These injuries are debilitating for the victims resulting in permanently devastating, physical, psychological and social impairment. These victims are predominantly younger; which leads to a prolonged period of productivity in society and increased financial burden for the state.*

The need to follow the footsteps countries such as Bangladesh, India and the United Kingdom, who have created specific legislation targeting these types of assaults legal. The need to implement public awareness and social advocacy are also necessary. This will lead to prevention and reduction in the morbidity, mortality and financial burden with chemical assaults.



The Ministry of Health and Wellness
15 Knutsford Boulevard, Kingston 5, Jamaica
Tele: (876) 633-7924
Email: surveillance@moh.gov.jm



9 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