

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

World Food Safety

Safer food, better health

Safe, nutritious and diverse food in childhood is one of the key ingredients to deliver a world where children are free from all forms of malnutrition. Children under five years of age bear 40 percent of the foodborne disease burden and are at a higher risk of malnutrition and mortality due to unsafe food; 149 million have short height for their age; 45 million have low weight for their height.

When food is not safe, nutritional goals cannot be achieved. Food safety contributes to healthy growth and development in children. Therefore, schools, daycare centres and other facilities are important settings to promote food safety. Schools should promote food safety in the cafeteria as part of their health programmes and start developing a food safety culture for students at a young age, helping to create a new generation of healthy consumers.

Although distribution modalities of school meals may vary – from canteens with hot or cold meals prepared in a kitchen onsite managed by the school staff or external catering company to canteens managed by parents or limited meal service or snacks – the handling process of food served in schools and daycare centres must comply with food safety requirements.

One in ten people worldwide fall ill from eating contaminated food each year. Vulnerable groups, such as the elderly, children under five and poor populations, are the most exposed and at greatest risk of foodborne disease. Unsafe food not only adversely affects people's health and well-being, it also has negative economic consequences for individuals and businesses. Unsafe food costs low- and middle-income countries USD 110 billion each year in productivity and medical expenses. Unsafe food decreases work attendance and earning potential; healthy people can be more productive. Whether in a cafeteria setting or prepared at home, safe food is crucial for everyone who eats in the workplace. When food safety is made a priority, employees are healthier and can achieve their potential.

What are the benefits of food safety?

SHORT-TERM BENEFITS

Health: children fall sick less often and are in better health in general;
Developmental: reduced lethargy and better concentration;
Economic: lower health expenditures and lower childcare costs.

LONG-TERM BENEFITS

Health: improved well-being and better physical growth;
Developmental: improved school performance due to better cognitive ability and lower absenteeism;
Economic: higher work productivity and earning potential in adult life.

How to improve food safety

SCHOOL AUTHORITIES

Meet regulatory food safety requirements in food halls and cafeterias by:

- having a food safety supervisor with the training, skills and knowledge to ensure that all regulations are followed, such as hand washing with clean water before handling food;
- ensuring a food safety management programme is set up, such as Hazard Analysis and Critical Control Points (HACCP) and meets local requirements.

Provide food safety training to all staff and parents involved in meal preparation and service.

Include food safety in food literacy curricula to ensure food safety is embedded in social norms as children grow and develop.

Promote the use of WHO's Five Keys to Safer Food by teachers and students.

TEACHERS AND SCHOOL STAFF

Ensure children wash their hands with soap and clean water before and after consuming food and after going to the bathroom.

Reach out and involve families in food safety protocols by sharing information about how to correctly store food brought from home.

Teach children early about how to prepare and handle food safely. This equips young people with knowledge and habits for later in life.

Hold a World Food Safety Day activity on or around 7 June. Involve students in food safety activities at schools, youth centres or youth events. This way young people can learn about food safety and share important knowledge with families.

EPI WEEK 21



SYNDROMES

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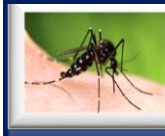
CLASS 1 DISEASES

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INFLUENZA

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GASTROENTERITIS

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RESEARCH PAPER

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SENTINEL SYNDROMIC SURVEILLANCE

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 - 18 to 21 of 2022

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
	2022												
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	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	Late (T)	Late (W)
20	On Time	On Time	On Time	Late (T)	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time
21	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

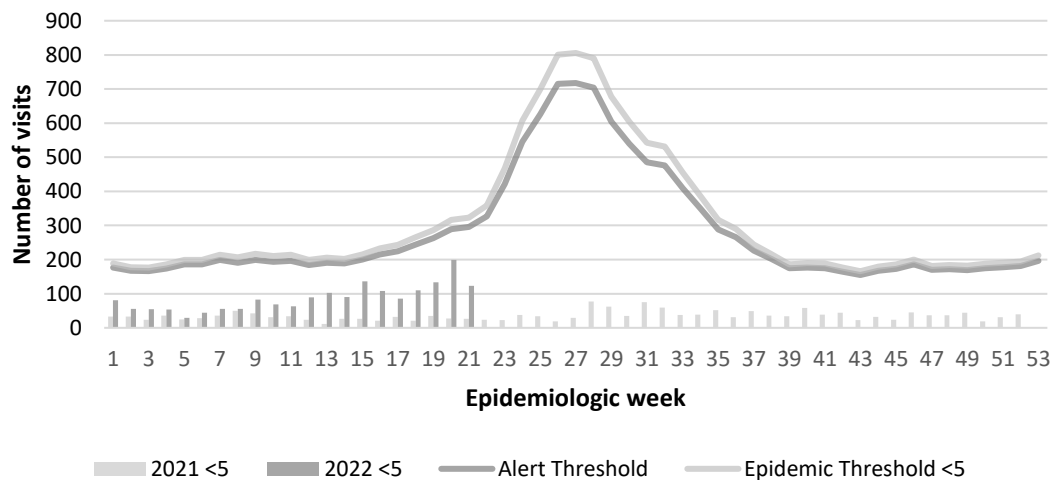
UNDIFFERENTIATED FEVER

Temperature of >38°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



KEY
 VARIATIONS OF BLUE SHOW CURRENT WEEK

Number of visits for Undifferentiated Fever <5 2021 and 2022 vs Weekly Threshold, Jamaica



2 NOTIFICATIONS-
 All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

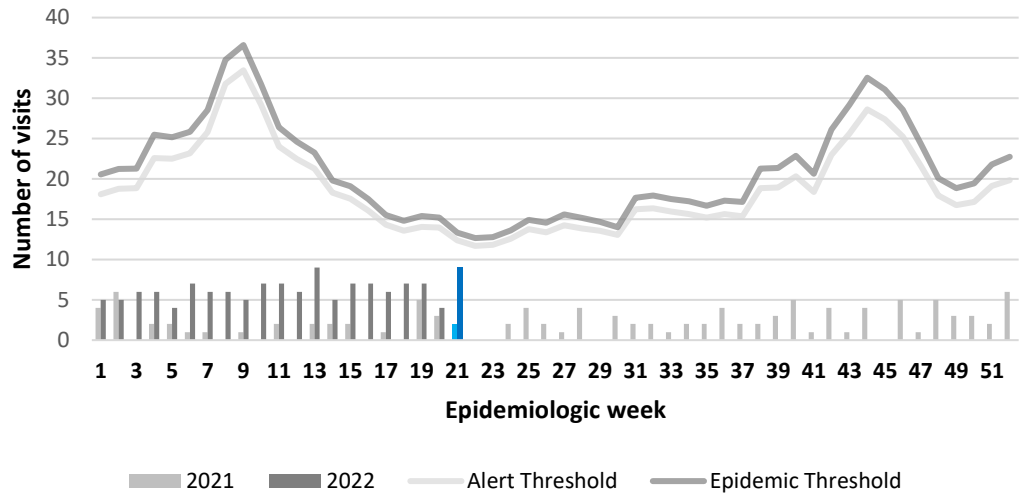
SENTINEL REPORT- 78 sites. Automatic reporting

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 2021 and 2022 vs. Weekly Threshold: Jamaica

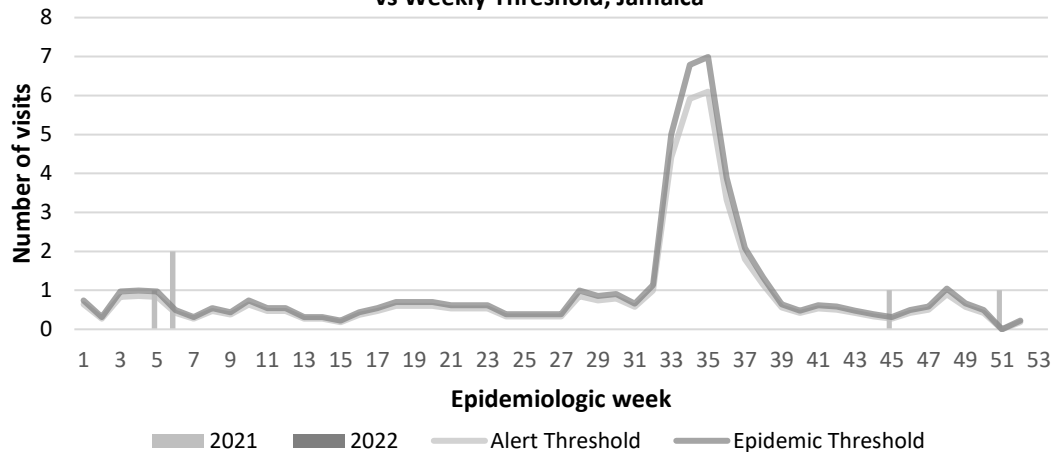


FEVER AND HAEMORRHAGIC

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 2021 and 2022 vs Weekly Threshold; Jamaica



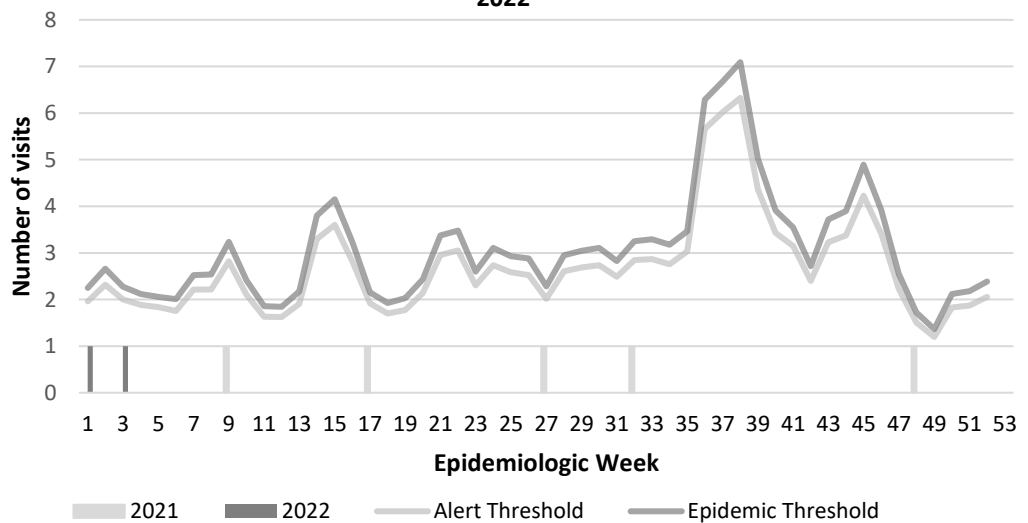
FEVER AND JAUNDICE

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 2021 and 2022



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

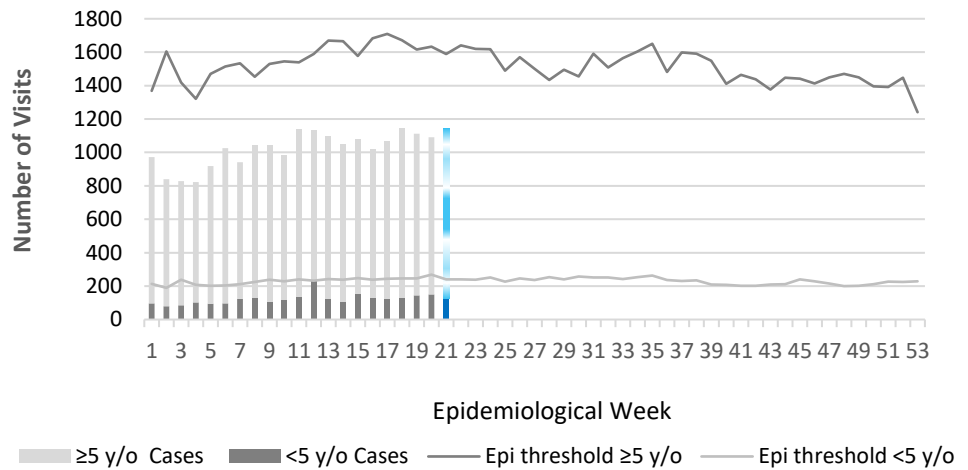
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK



Weekly Visits to Sentinel Sites for Accident by Age Group 2022 vs. Weekly Threshold

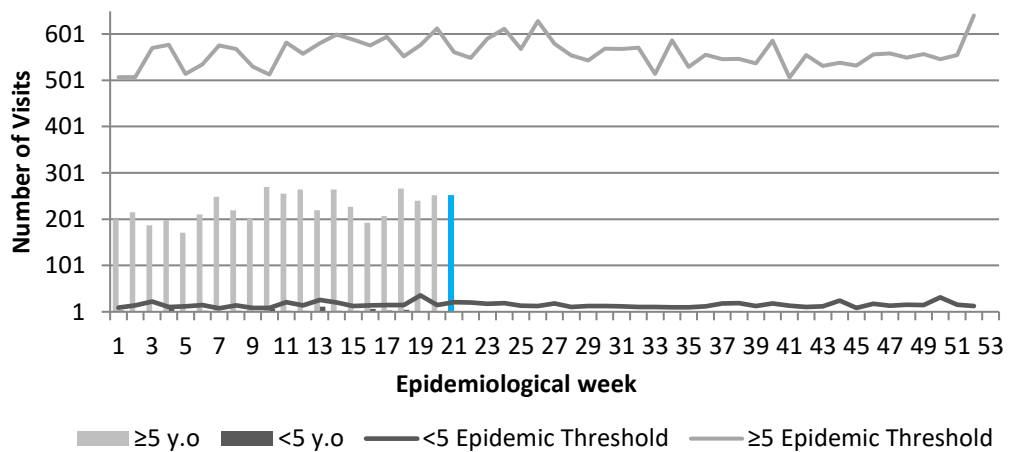


VIOLENCE

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



Weekly visits to Sentinel Sites for Violence by Age Group 2022 vs Weekly Threshold; Jamaica

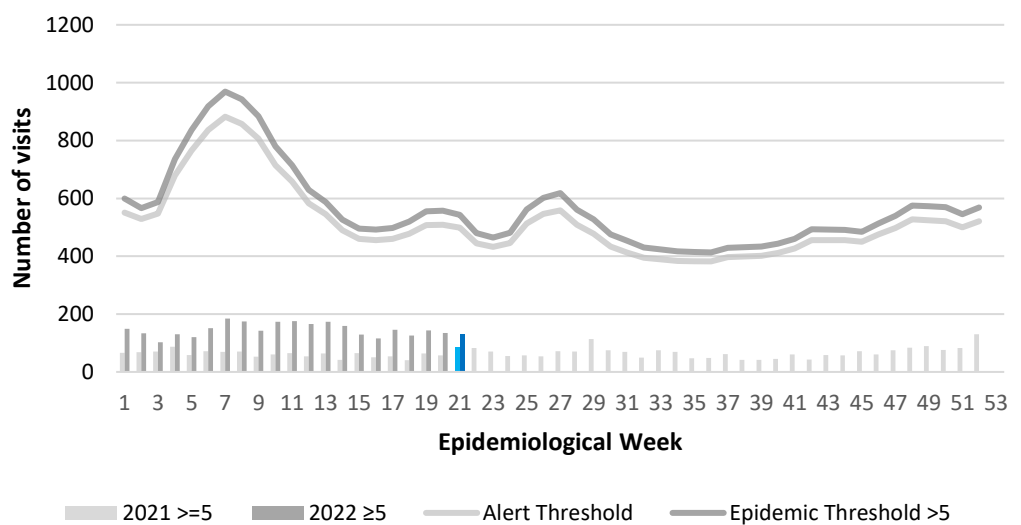


GASTROENTERITIS

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



Gastroenteritis Ages 5 and Over: Jamaica, Weekly Threshold vs Cases 2021 and 2022



4 NOTIFICATIONS-
All clinical sites



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CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2022	PREVIOUS YEAR 2021		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	81 ^β	58 ^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;	
	Cholera	0	0		
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	40187	35303		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	8	6		
	Hepatitis C	2	4		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	8	9		
EXOTIC/ UNUSUAL	Plague	0	0	^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 in 2020. ^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	19		
	Ophthalmia Neonatorum	48	40		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
Tuberculosis	13	19			
Yellow Fever	0	0			
	Chikungunya ^ε	0	0	NA- Not Available	
	Zika Virus ^θ	0	0		

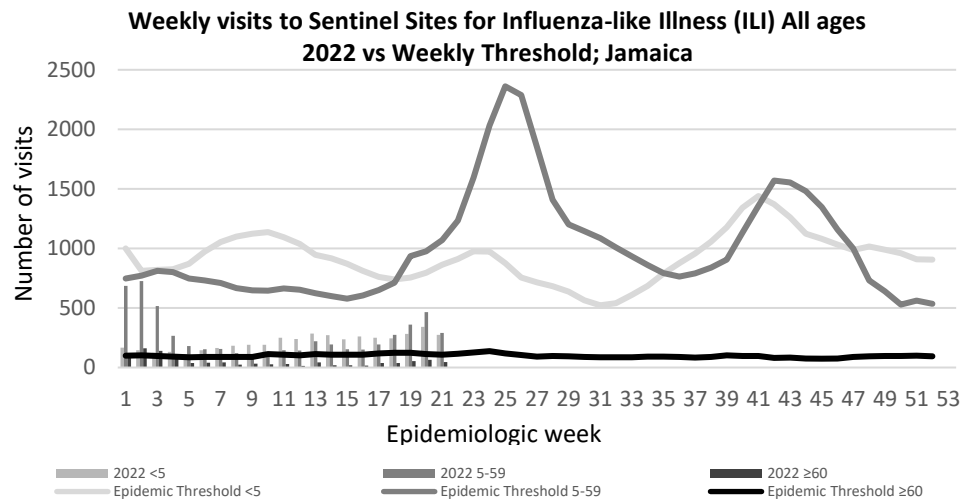
 <p>5 NOTIFICATIONS- All clinical sites</p>	 <p>INVESTIGATION REPORTS- Detailed Follow up for all Class One Events</p>	 <p>HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued</p>	 <p>SENTINEL REPORT- 78 sites. Automatic reporting</p>
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NATIONAL SURVEILLANCE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

EW 21

May 22 - 28, 2022 Epidemiological Week 21

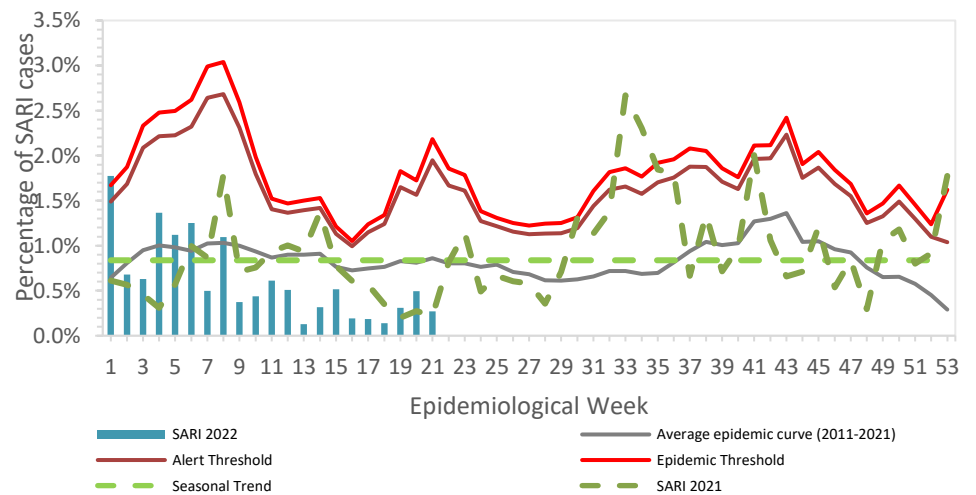
	EW 21	YTD
SARI cases	4	200
Total Influenza positive Samples	0	0
Influenza A	0	0
H3N2	0	0
H1N1pdm09	0	0
Not subtyped	0	0
Influenza B	0	0
Parainfluenza	0	0



Epi Week Summary

During EW 21, four (4) SARI admissions were reported.

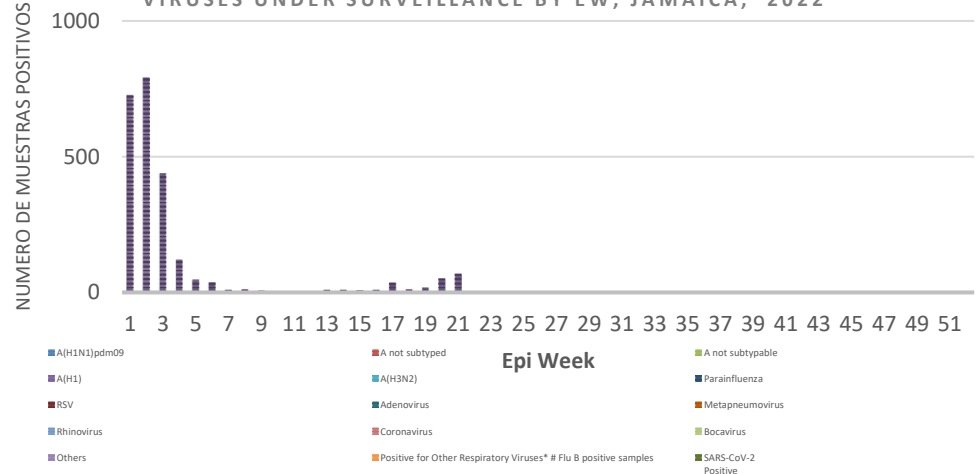
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2022) (compared with 2011-2021)



Caribbean Update EW 21

Caribbean: Influenza activity remained low. In Belize, SARS-CoV-2 and RSV detections continued to increase and in Haiti, SARS-CoV-2 activity continued elevated and increasing.

DISTRIBUTION OF INFLUENZA AND OTHER RESPIRATORY VIRUSES UNDER SURVEILLANCE BY EW, JAMAICA, 2022



6 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

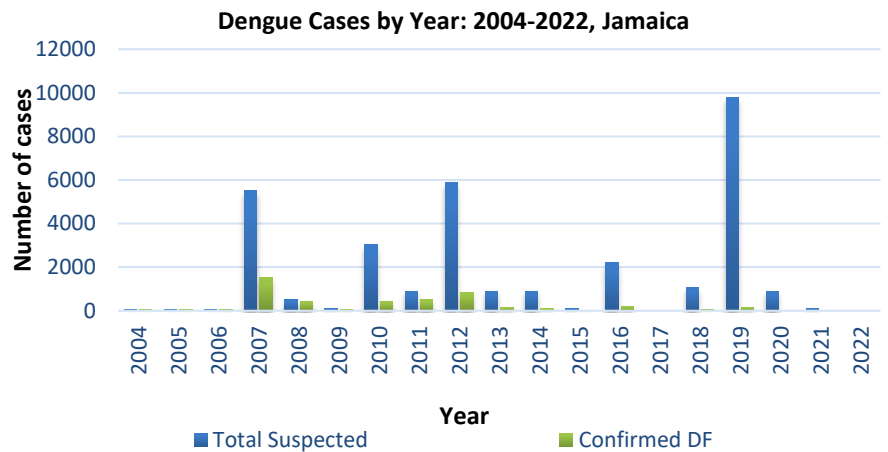
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Dengue Bulletin

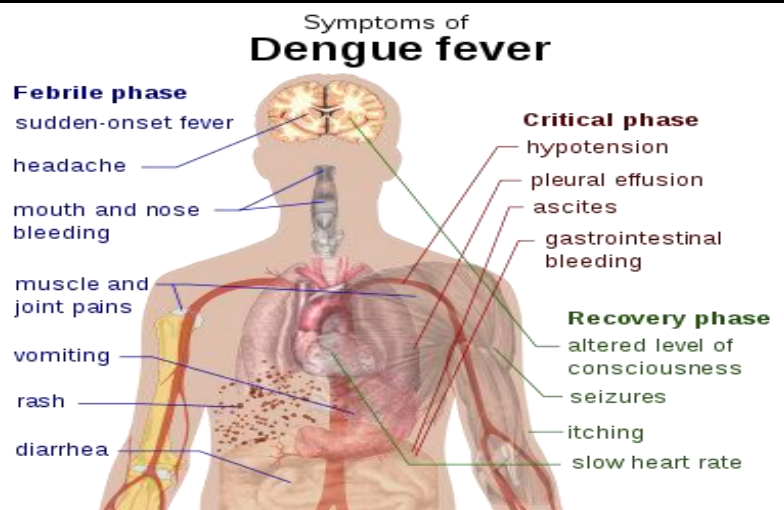
May 22 - 28, 2022 Epidemiological Week 21

Epidemiological Week 21



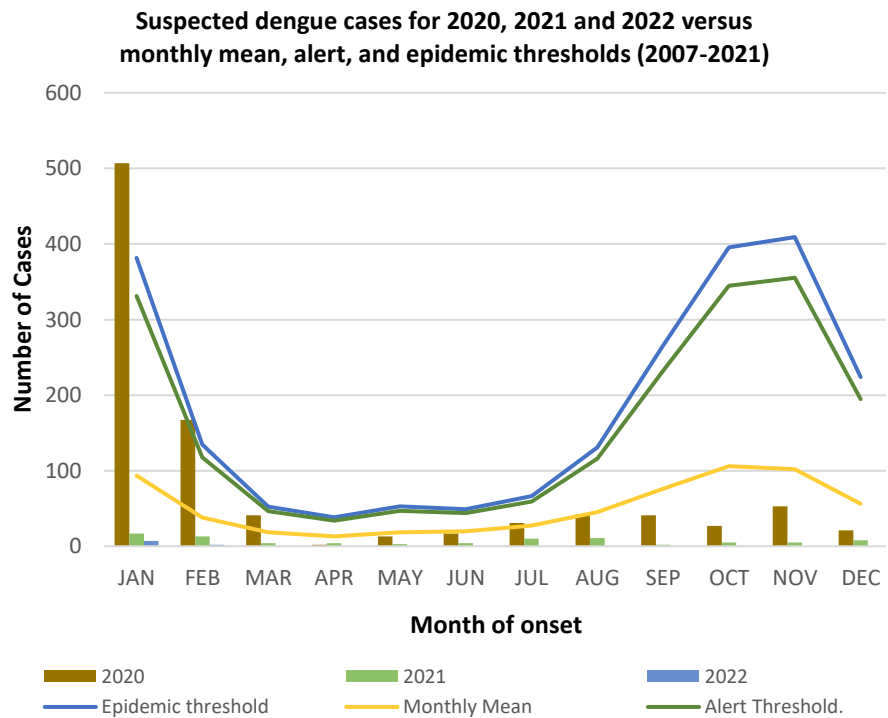
Reported suspected and confirmed dengue with symptom onset in week 21 of 2022

	2022*	
	EW 20	YTD
Total Suspected Dengue Cases	0	9
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at May 24, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



7 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

Assessment of the gut microbiome composition of healthy undergraduate science students at the University of the West Indies, Mona, Jamaica.

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Background: The gut microbiome is a diverse ecosystem with 10^{14} bacterial cells in symbiotic relationship with their host and are essential in maintaining a healthy status. These bacteria have also been implicated in diseases such as inflammatory bowel disease, irritable bowel syndrome, obesity and diabetes. The gut microbiome is generally stable but can be affected by factors such as culture, diet, geography and demographics.

Objectives: Consequently, this pilot study sought to assess the gut microbiome composition of healthy undergraduate science students, ages 18 to 30, attending The University of the West Indies, Mona, Jamaica with a view to leverage this understanding to promote students' health.

Methods: After obtaining ethical approval, participants were asked to provide written consent and responses to a questionnaire and a stool sample. Total DNA was extracted and purified from stool samples, PCR amplified and sequenced.

Results: *Firmicutes*, *Bacteroides*, *Proteobacteria*, and *Actinobacteria* were the most abundant phyla observed, with *Firmicutes* in the highest proportion. Generally, the organisms in the proportions observed, were indicative of a healthy status in the population of students sampled. However, higher proportion of *Firmicutes* relative to *Bacteroides* are known to be associated with obesity and overweight, which have significant risk for cardiovascular complications.

Conclusion: Comparisons such as body mass index, gender, area of residence, vaginal vs Caesarian section birth, or whether vegetarian or not, did not show any significant differences in population diversity. Given the current knowledge base, these assessments can assist in the improvement and maintenance of health and wellness and are becoming important in preventive medicine.



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8 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



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