

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Food Additives

What are food additives?



Substances that are added to food to maintain or improve the safety, freshness, taste, texture, or appearance of food are known as food additives. Some food additives have been in use for centuries for preservation – such as salt (in meats such as bacon or dried fish), sugar (in marmalade), or sulfur dioxide (in wine).

Many different food additives have been developed over time to meet the needs of food production, as making food on a large scale is very different from making them on a small scale at home. Additives are needed to ensure processed food remains safe and in good condition throughout its journey from factories or industrial kitchens, during transportation to warehouses and shops, and finally to consumers.

The use of food additives is only justified when their use has a technological need, does not mislead consumers, and serves a well-defined technological function, such as to preserve the nutritional quality of the food or enhance the stability of the food. Food additives can be derived from plants, animals, or minerals, or they can be synthetic. They are added intentionally to food to perform certain technological purposes which consumers often take for granted. There are several thousand food additives used, all of which are designed to do a specific job in making food safer or more appealing. WHO, together with FAO, groups food additives into 3 broad categories based on their function.

Other additives

Other food additives are used for a variety of reasons, such as preservation, colouring, and sweetening. They are added when food is prepared, packaged, transported, or stored, and they eventually become a component of the food.

Preservatives can slow decomposition caused by mould, air, bacteria, or yeast. In addition to maintaining the quality of the food, preservatives help control contamination that can cause foodborne illness, including life-threatening botulism.

Colouring is added to food to replace colours lost during preparation, or to make food look more attractive.

Non-sugar sweeteners are often used as an alternative to sugar because they contribute fewer or no calories when added to food.

EPI WEEK 7



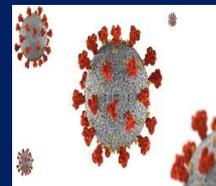
- Syndromic Surveillance
- Accidents
- Violence

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 - 4 to 7 of 2023

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
	2023												
4	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
5	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
6	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
7	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

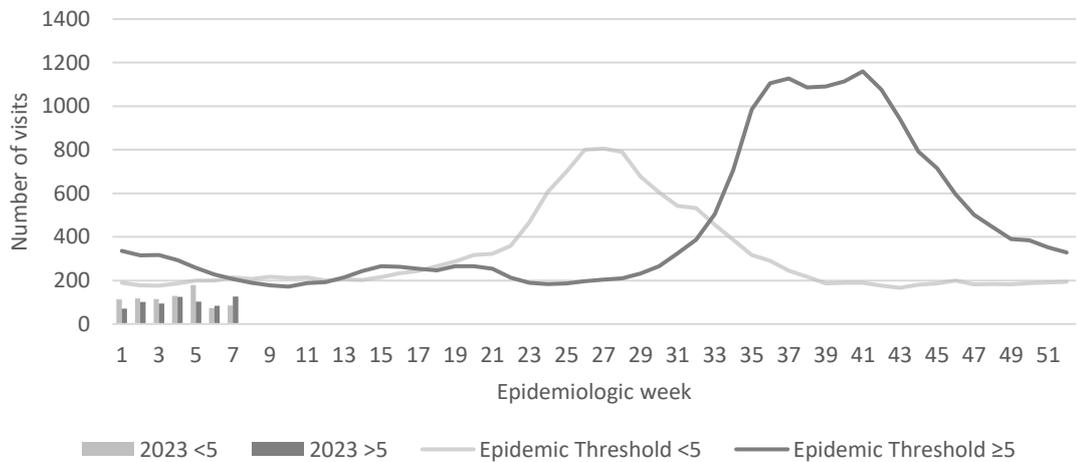
REPORTS FOR SYNDROMIC SURVEILLANCE

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 2023



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



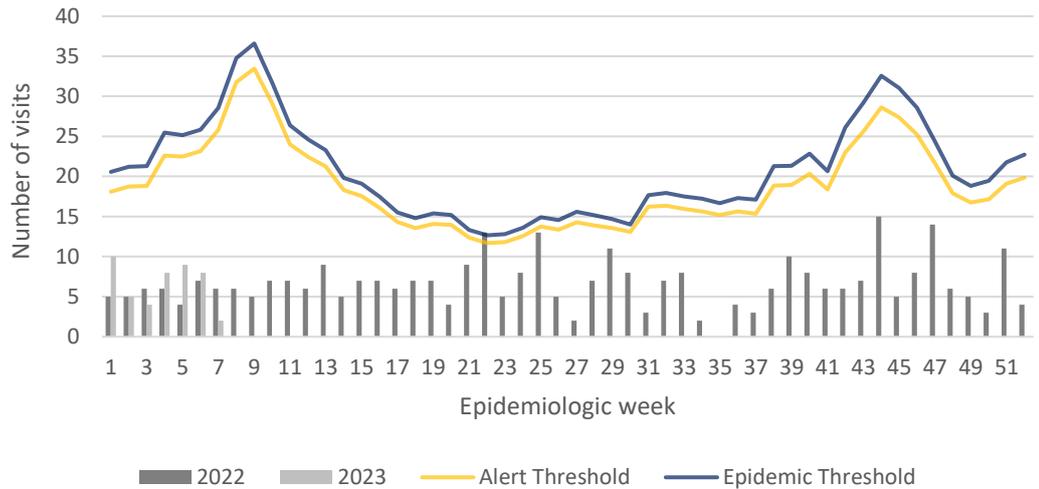
SENTINEL REPORT- 78 sites. Automatic reporting

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 2022 and 2023 vs. Weekly Threshold: Jamaica

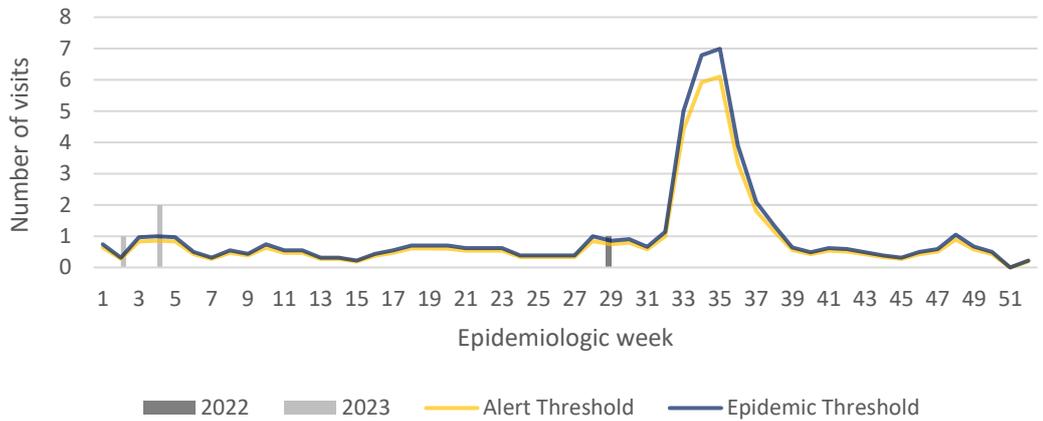


FEVER AND HAEMORRHAGIC

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 2022 and 2023 vs Weekly Threshold; Jamaica



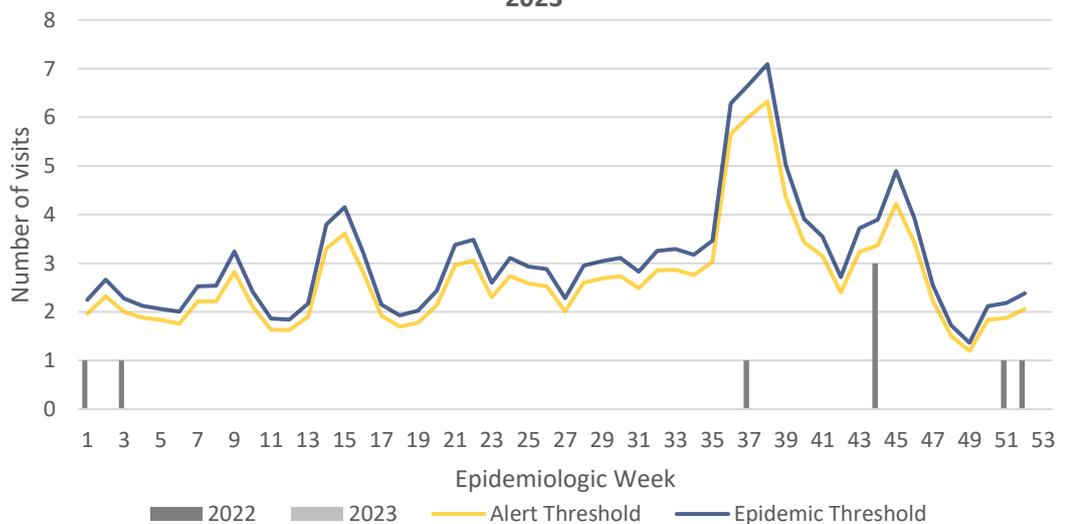
FEVER AND JAUNDICE

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 2022 and 2023



3 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

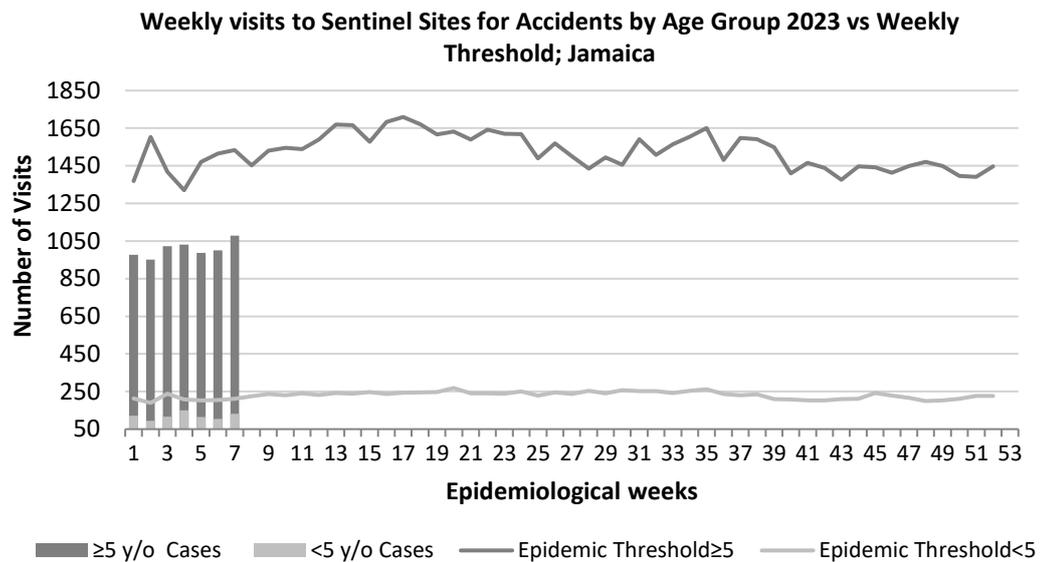


SENTINEL REPORT- 78 sites. Automatic reporting



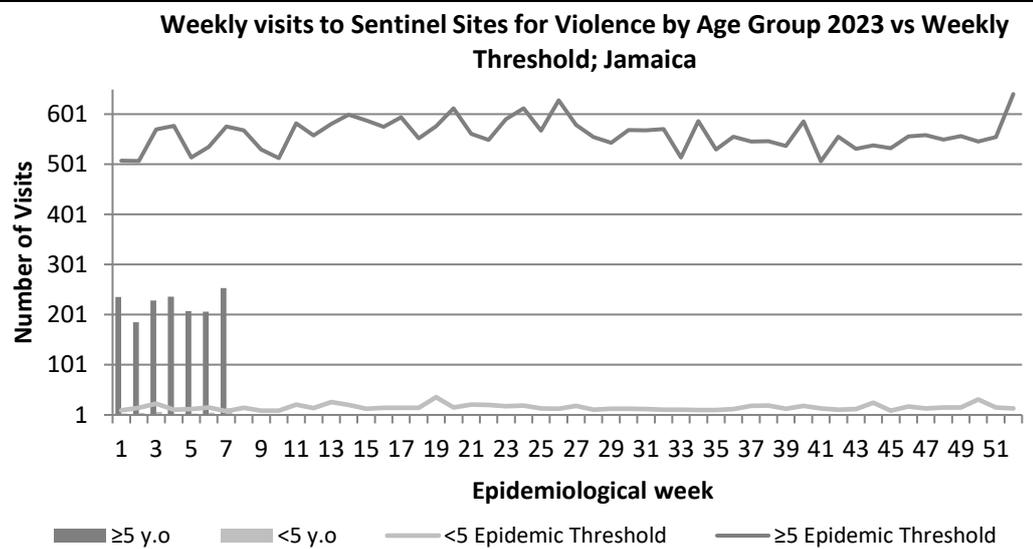
ACCIDENTS

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



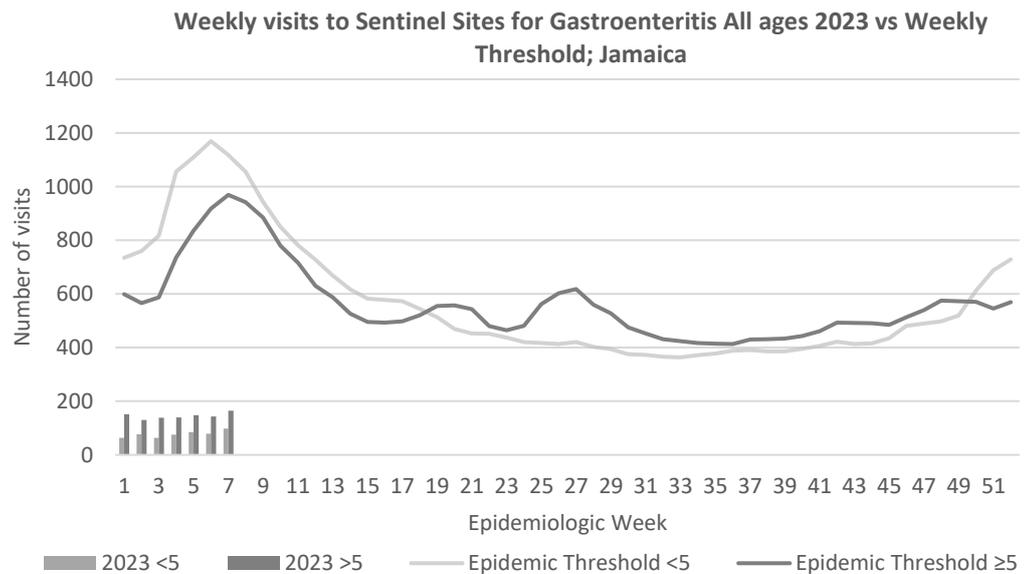
VIOLENCE

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



GASTROENTERITIS

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



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 2023	PREVIOUS YEAR 2022		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	25 ^β	33 ^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)	1320	30612		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	0	0		
	Hepatitis C	0	0		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	4	3		
	Monkeypox	0	N/A		
EXOTIC/ UNUSUAL	Plague	0	0	^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	2	9		
	Ophthalmia Neonatorum	15	10		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	0	2		
	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

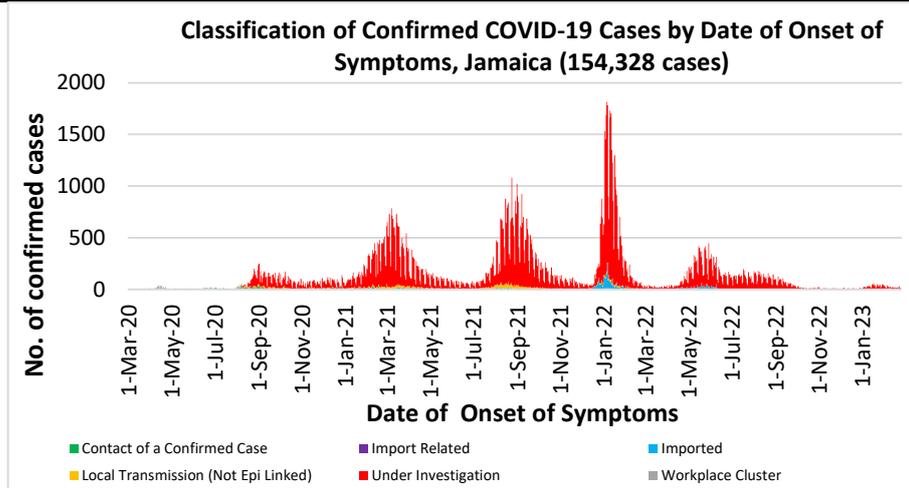


SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

March 10, 2020 – EW 7, 2023

CASES	EW 7	Total
Confirmed	132	154328
Females	81	89034
Males	51	65291
Age Range	81 days old to 95 years	1 day to 108 years
* 3 positive cases had no gender specification * PCR or Antigen tests are used to confirm cases		

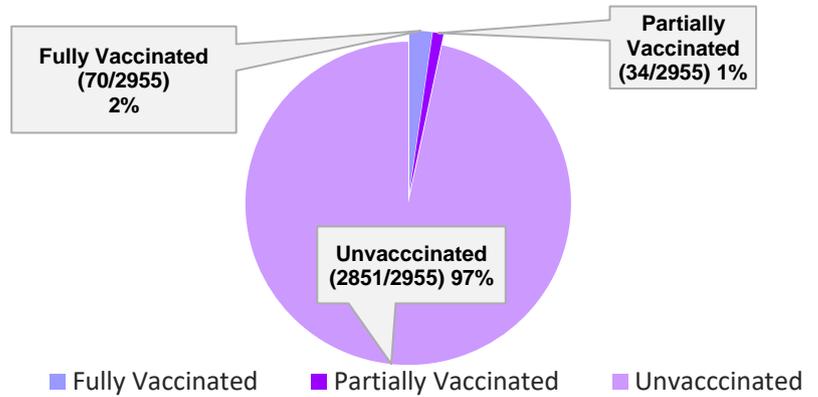


COVID-19 Outcomes

Outcomes	EW 7	Total
ACTIVE *past 2 weeks*		283
DIED – COVID Related	1	3513
Died - NON COVID	0	299
Died - Under Investigation	0	347
Recovered and discharged	59	102501
Repatriated	0	93
Total		154328

*Vaccination programme March 2021 – YTD

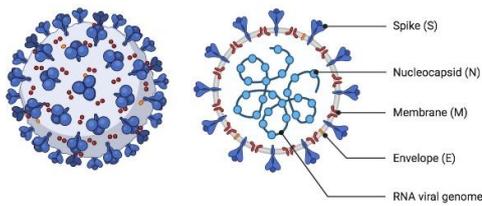
2955 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

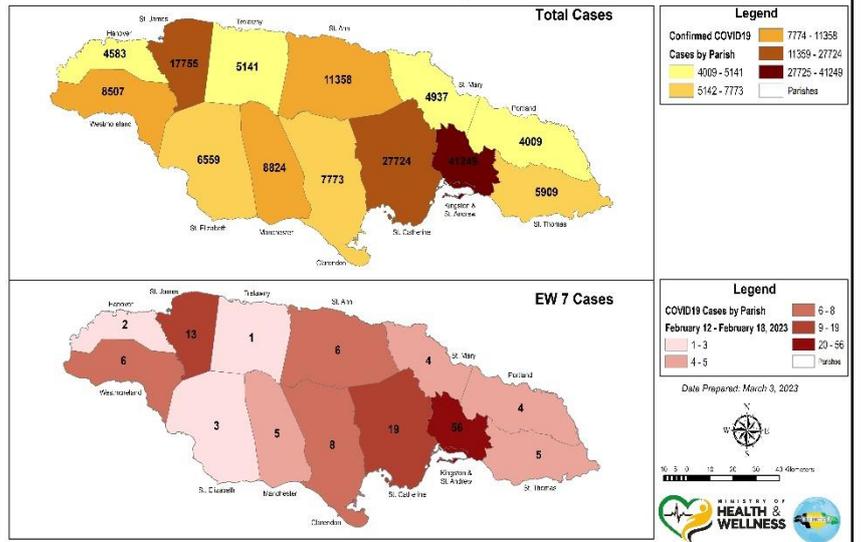
SARS-CoV-2



COVID-19 WHO Global Statistics EW4-EW7

Epi Week	Confirmed Cases	Deaths
4	462,462	2,118
5	412,981	1814
6	153,365	910
7	164,069	694
Total (4weeks)	1,192,877	5536

COVID19 Cases by Parish



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

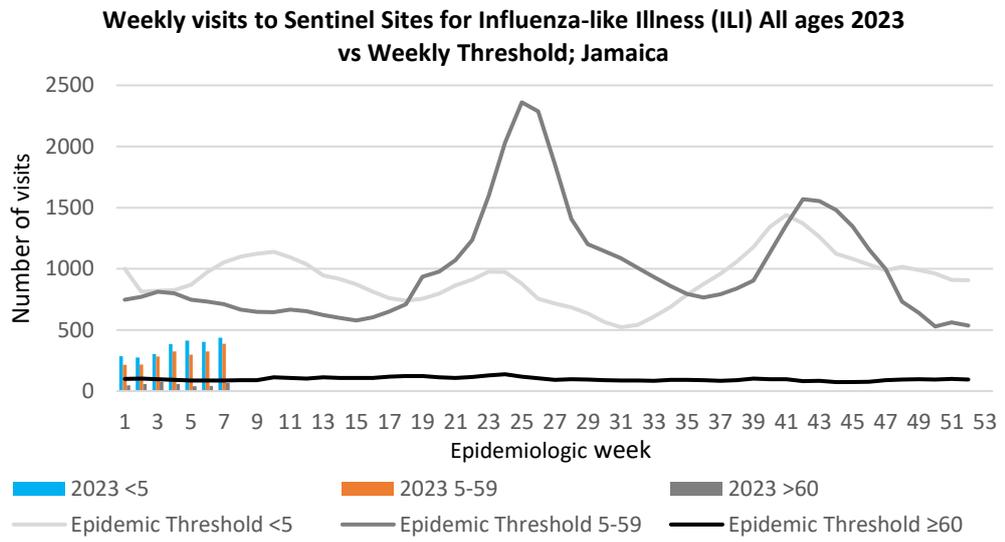


NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 7

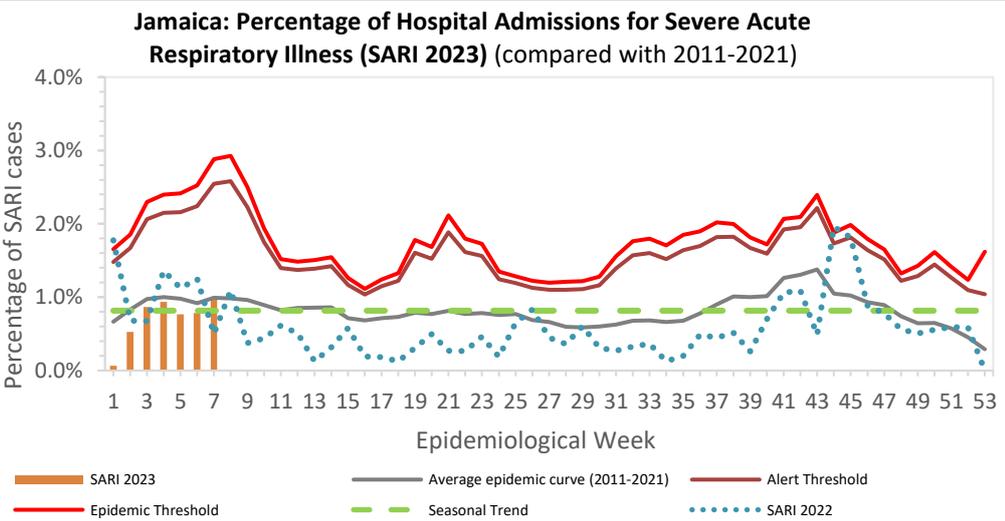
February 12 – February 18, 2023 Epidemiological Week 7

	EW 7	YTD
SARI cases	11	77
Total Influenza positive Samples	0	15
Influenza A	0	11
H3N2	0	1
H1N1pdm09	0	9
Not subtyped	0	1
Influenza B	0	4
Parainfluenza	0	1
RSV	3	3



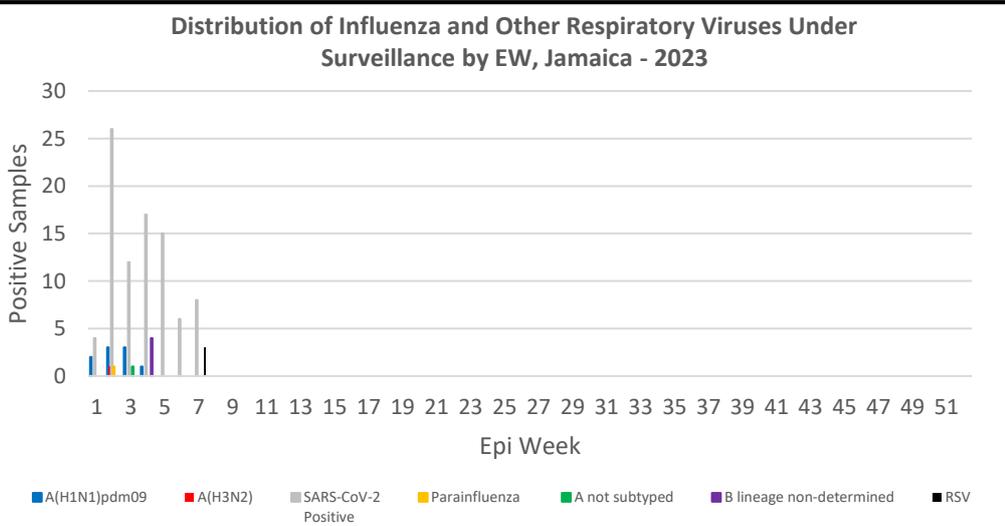
Epi Week Summary

During EW7 eleven (11) SARI admissions were reported.



Caribbean Update EW 7

Caribbean: Influenza activity was elevated with a decreasing trend. Influenza A and B viruses were equally detected. Influenza A(H1N1)pdm09, A(H3N2) and influenza B/Victoria co-circulated. In French Guyana, influenza activity was elevated but decreasing. SARS-CoV-2 activity was low in the subregion, with RSV activity at baseline levels except in Jamaica, where RSV activity was increased.



7 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

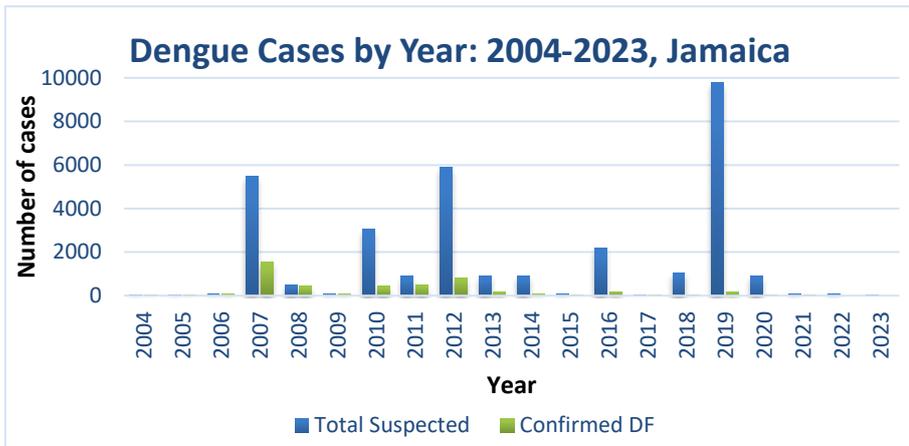
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

Dengue Bulletin

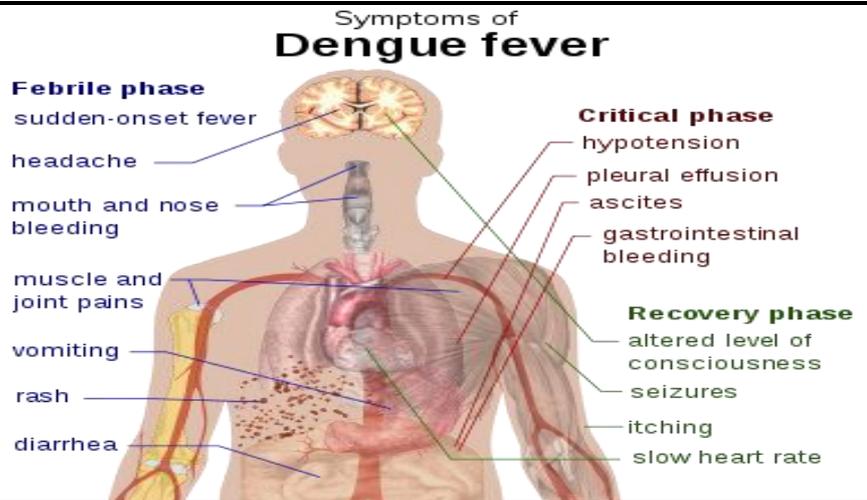
February 12- February 18, 2023 Epidemiological Week 7

Epidemiological Week 7



Reported suspected and confirmed dengue with symptom onset in week 7 of 2023

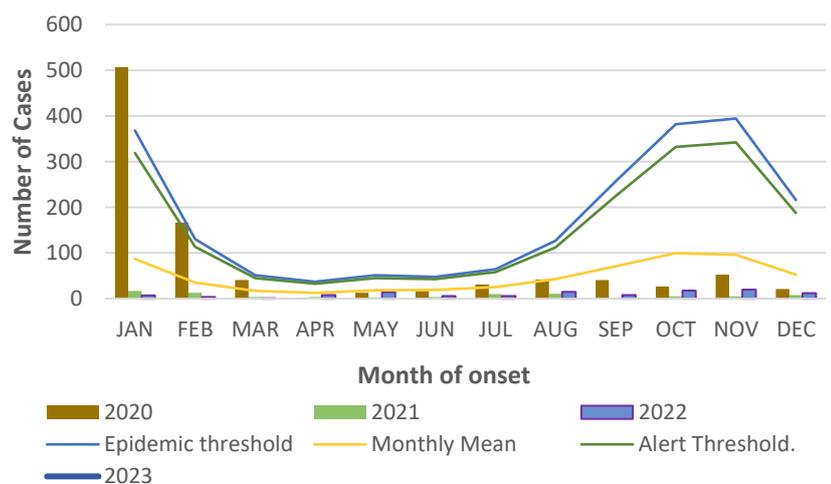
	2023*	
	EW 7	YTD
 Total Suspected Dengue Cases	1	13
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at Feb 18, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2020, 2021, 2022 and 2023 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

Barriers to Adherence of Nurses and Patient Care Assistants to Hand Hygiene Practices and Equipment Decontamination Policy at an Urban Hospital in Jamaica

Feron Brown Hamilton¹, Antoinette Barton-Gooden²

Aim: To determine the barriers to adherence of Nurses and Patient Care Assistants to hand hygiene practices and Equipment Decontamination Policy.

Methods: Cross-sectional study design was utilized among 109 Registered Nurses and 26 Patient Care Assistants (PCAs) who were conveniently sampled from the Medical and Surgical Departments. A 54 item self-administered Behaviours and Levers to hand hygiene instrument and the Infection Control Policy Audit Tool. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20. Descriptive statistics included ANOVA and chi-squared test.

Results: Response rate was 68% with nurses (109/135) and PCAs (26/37). Most of the respondents were female (97%), age range 20-30 years (54.4%) and had 0-4 years' experience (63%). Self-reported adherence to appropriate hand hygiene practices were high: 84% reported 81-100% adherence. Barriers identified were: Social influences (\bar{x} 3.24, ± 1.67), knowledge of decontamination of equipment policy (\bar{x} 4.18, ± 2.01), environment context and resources (\bar{x} 4.64 ± 1.48) and action planning (\bar{x} 4.96 ± 1.59). There were no statistical significant relationship between socio-demographic characteristics: age (χ^2 4.684; $p > .05$); job title (χ^2 1.709; $p > .05$); years of service (χ^2 1.237, $p > .05$); unit assigned (χ^2 4.684; $p > 0.05$) and adherence. While participants who were 31 years and older were more knowledge of equipment decontamination policy (\bar{x} 5.71 ± 2.01 ; $p < 0.05$). PCAs had greater knowledge of the equipment decontamination policy (\bar{x} 5.41, ± 1.75 ; $p < 0.05$) when compared to Enrolled Assistant Nurses (\bar{x} 4.09 ± 1.90) and Registered Nurses (\bar{x} 3.85 ± 1.58).

Conclusion: Nurse and PCAs reported high hand hygiene adherence. Barriers were knowledge of the equipment decontamination policy, environment context and resources.

Key words: *Nurses, Patient Care Assistants, Hand Hygiene and Decontamination Policy*



The Ministry of Health and Wellness
24-26 Grenada Crescent
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