

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Contraception

What is contraception?

- **Contraception** - A chemical, physical, or surgical method of preventing fertilization of an ovum.
- Contraception will help prevent fertilization:
 - Fertilization – The union of a sperm and ovum.

Key facts

- Among the 1.9 billion Women of Reproductive Age group (15-49 years) worldwide in 2019, 1.1 billion have a need for family planning; of these, 842 million are using contraceptive methods, and 270 million









have an unmet need for contraception [1,2]

- The proportion of the need for family planning satisfied by modern methods, Sustainable Development Goals (SDG) indicator 3.7.1, has stagnated globally at around 77% from 2015 to 2020 but increased from 55% to 58% in the Africa region [3]
- Only one contraceptive method, condoms, can prevent both a pregnancy and the transmission of sexually transmitted infections, including HIV.
- Use of contraception advances the human right of people to determine the number and spacing of their children.

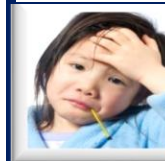
Contraceptive methods

Methods of contraception include oral contraceptive pills, implants, injectables, patches, vaginal rings, Intra uterine devices, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness based methods. These methods have different mechanisms of action and effectiveness in preventing unintended pregnancy. Effectiveness of methods is measured by the number of pregnancies per 100 women using the method per year.

Benefits and drawbacks of birth control methods

Method	Helps with period symptoms	Low maintenance	Requires procedure	Prevents STDs
 Sterilization surgery		✓	✓	
 Intrauterine Device (IUD)	✓	✓	✓	
 Implant	✓	✓	✓	
 Shot	✓	✓	✓	
 Birth control pills	✓			
 Patch	✓	✓		
 Vaginal ring	✓	✓		
 Condom				✓

EPI WEEK 4



SYNDROMES

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CLASS 1 DISEASES

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INFLUENZA

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DENGUE FEVER

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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 - 1 to 4 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													
1	On Time	Late (T)	Late (T)	On Time	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time
2	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time
3	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
4	On Time	Late (T)	On Time	On Time	Late (W)	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time

REPORTS FOR SYNDROMIC SURVEILLANCE

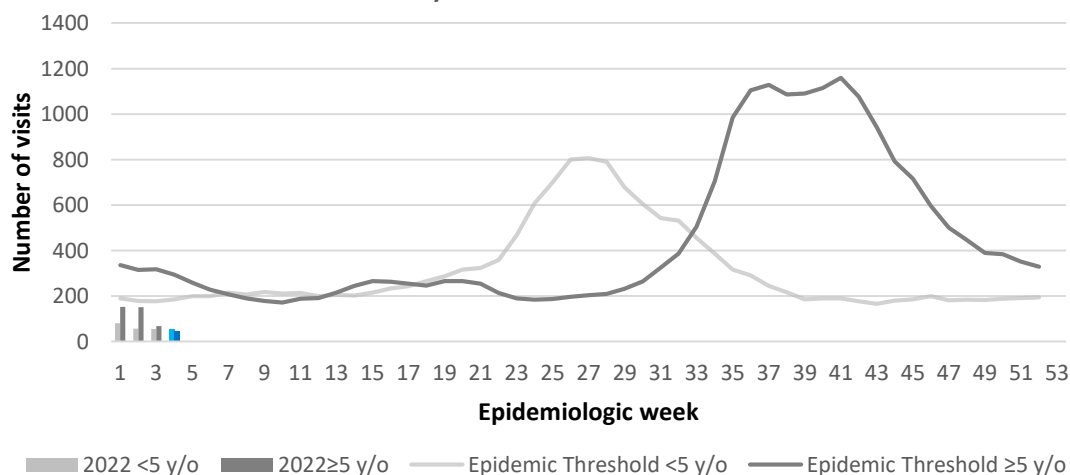
Temperature of $>38^{\circ}\text{C}$ / 100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK

Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica, Weekly Threshold vs Cases 2022



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



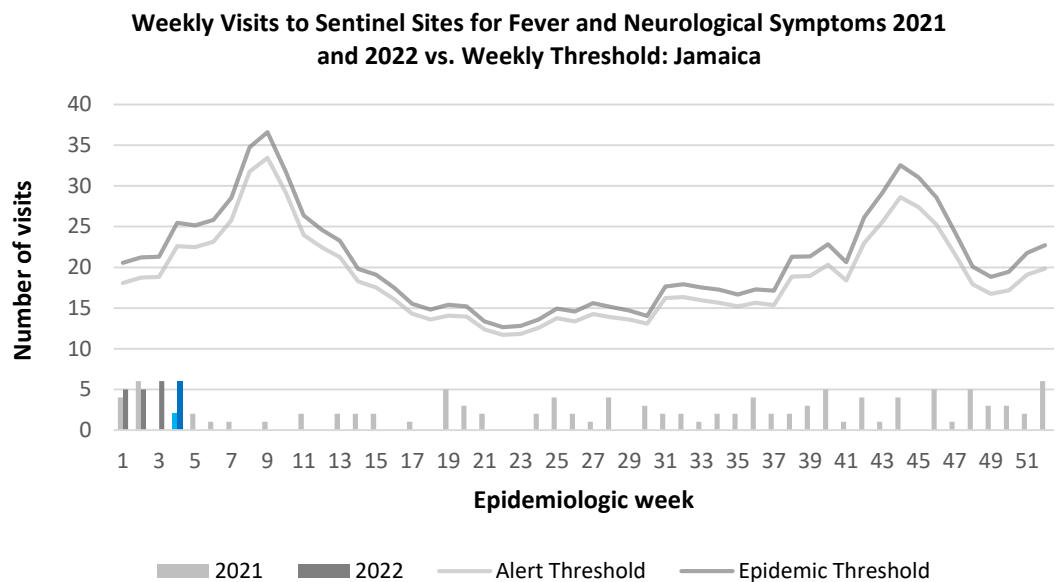
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



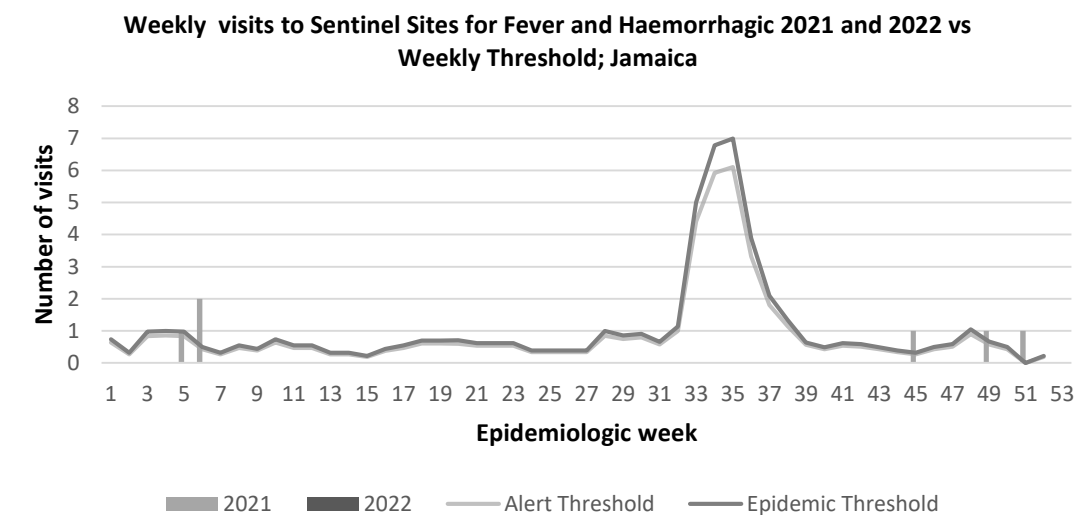
SENTINEL REPORT- 78 sites. Automatic reporting

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).

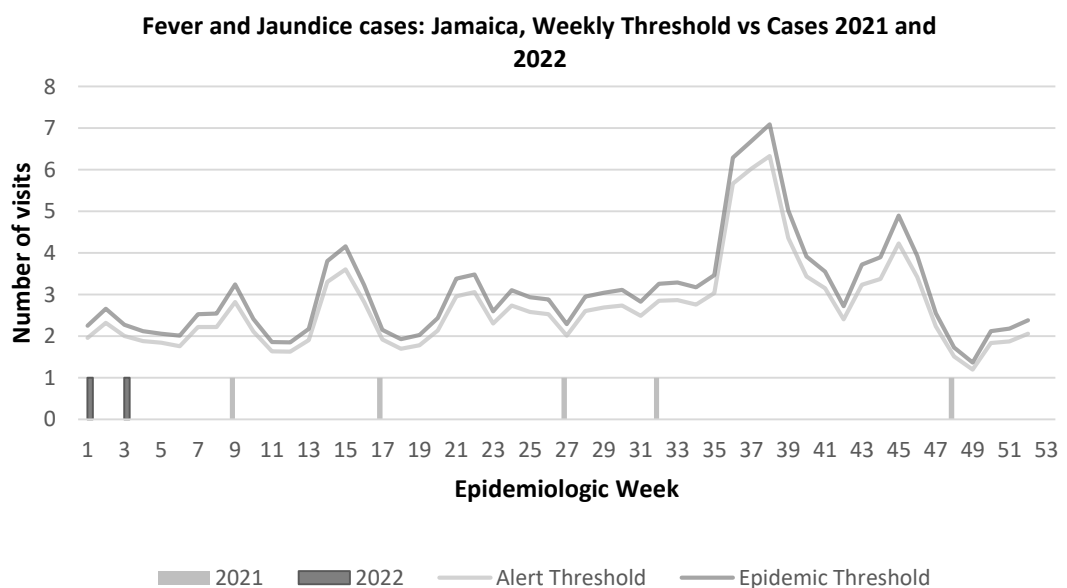
**FEVER AND HAEMORRHAGIC**

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.

**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.



3 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



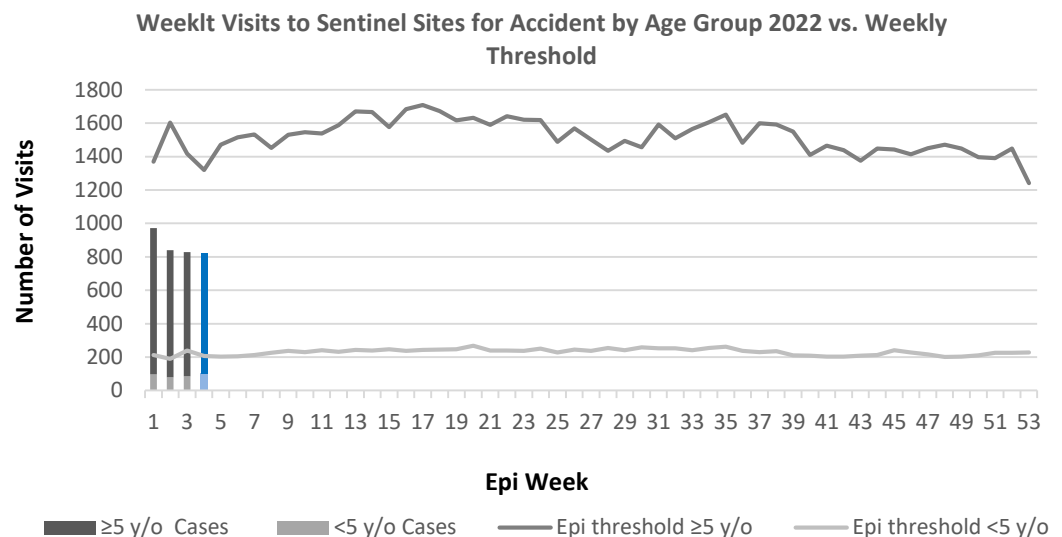
SENTINEL REPORT- 78 sites. Automatic reporting

ACCIDENTS

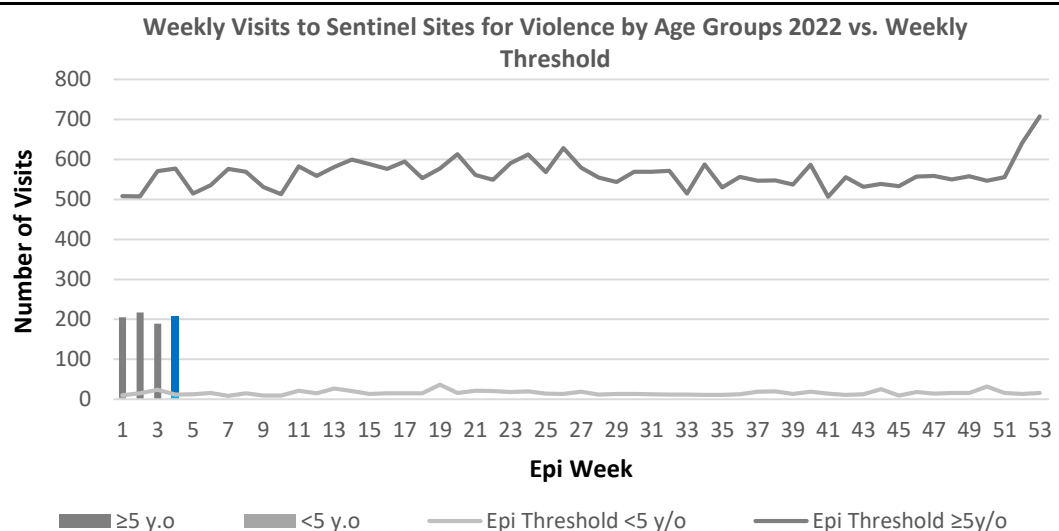
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

KEY

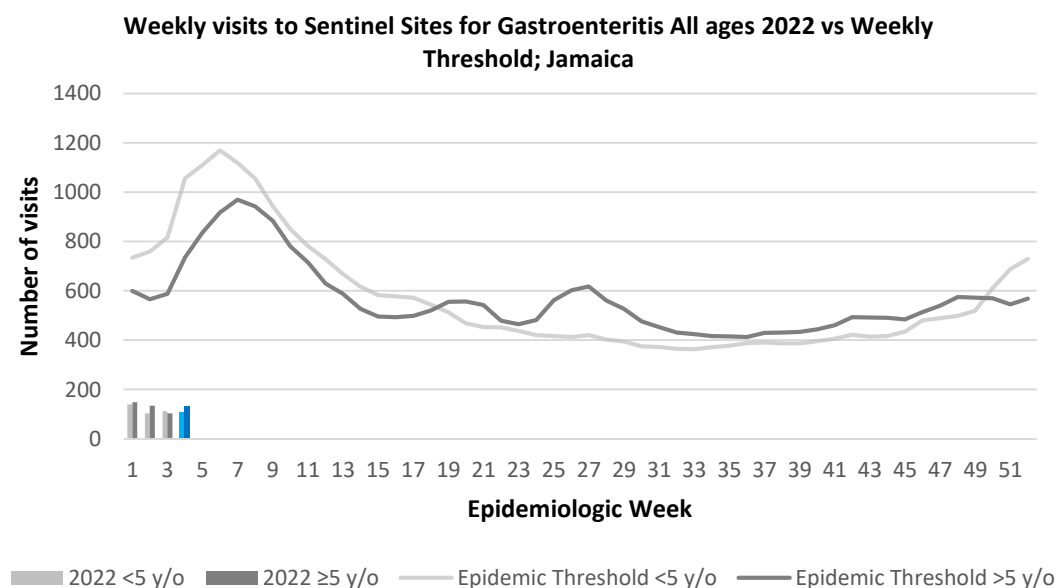
VARIATIONS OF BLUE SHOW CURRENT WEEK

**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



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SENTINEL REPORT- 78 sites. Automatic reporting

CLASS ONE NOTIFIABLE EVENTS				Comments
	CLASS 1 EVENTS	Confirmed YTD ^α		
		CURRENT YEAR 2022	PREVIOUS YEAR 2021	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	0	11 ^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.
	Cholera	0	0	
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below	
	COVID-19 (SARS-CoV-2)	27840	3268	
	Hansen's Disease (Leprosy)	0	0	
	Hepatitis B	0	1	
	Hepatitis C	0	0	
	HIV/AIDS	NA	NA	
	Malaria (Imported)	0	0	
	Meningitis (Clinically confirmed)	0	3	
EXOTIC/ UNUSUAL	Plague	0	0	^γ Dengue Hemorrhagic Fever data include Dengue related deaths; ^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	
		Rubella	0	
	Maternal Deaths ^δ	6	5	
	Ophthalmia Neonatorum	8	9	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	0	
	Tuberculosis	2	3	
	Yellow Fever	0	0	
	Chikungunya ^ε	0	0	NA- Not Available
	Zika Virus ^θ	0	0	



5 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
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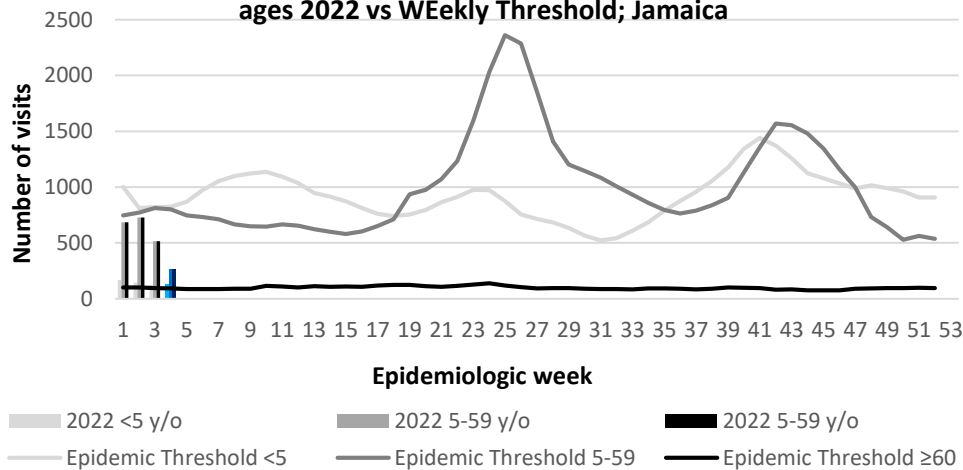
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 4

January 23– 29, 2022 Epidemiological Week 4

	EW 4	YTD
SARI cases	18	68
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

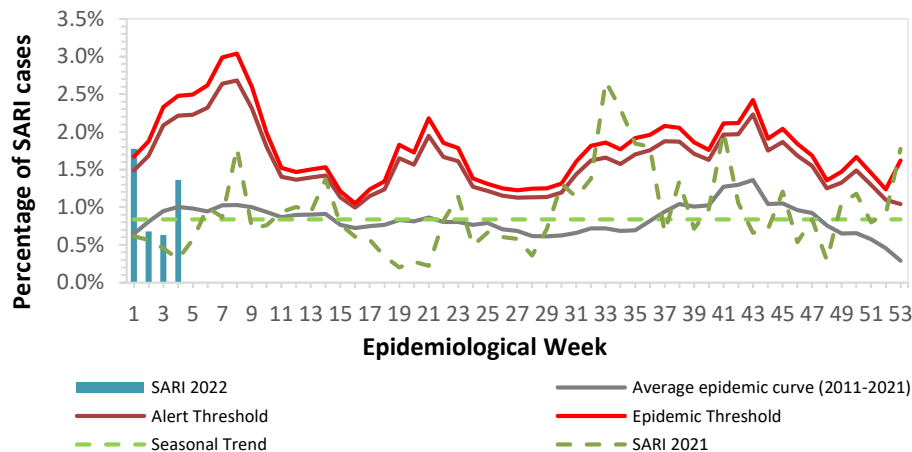
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2022 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 4, eighteen(18) SARI admissions were reported.

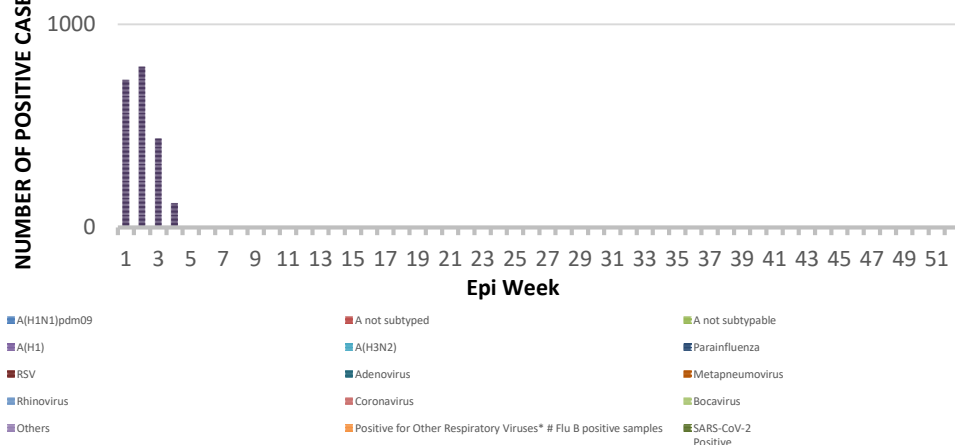
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2022) (compared with 2011-2021)



Caribbean Update EW 4

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-
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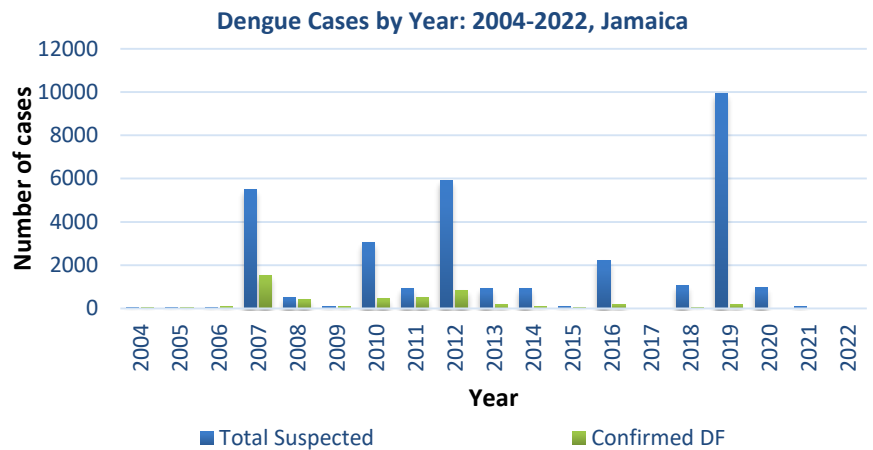


SENTINEL
REPORT- 78 sites.
Automatic reporting

Dengue Bulletin

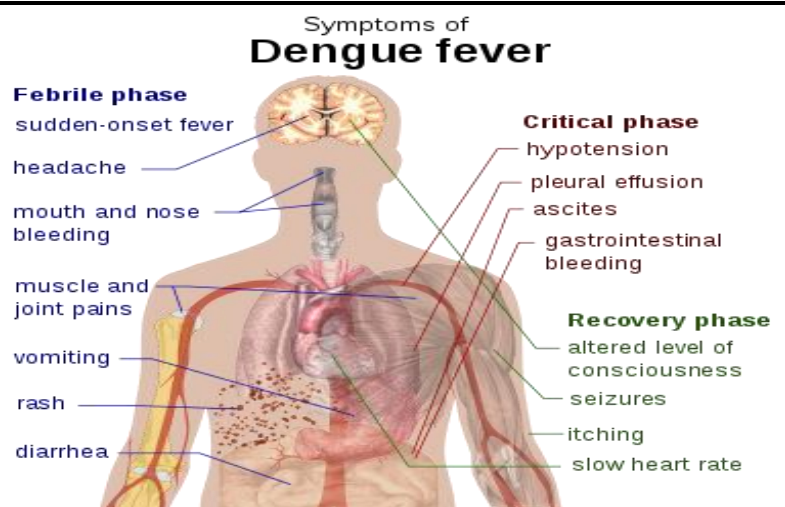
January 23- 29, 2021 Epidemiological Week 4

Epidemiological Week 4



Reported suspected and confirmed dengue with symptom onset in week 4 of 2022

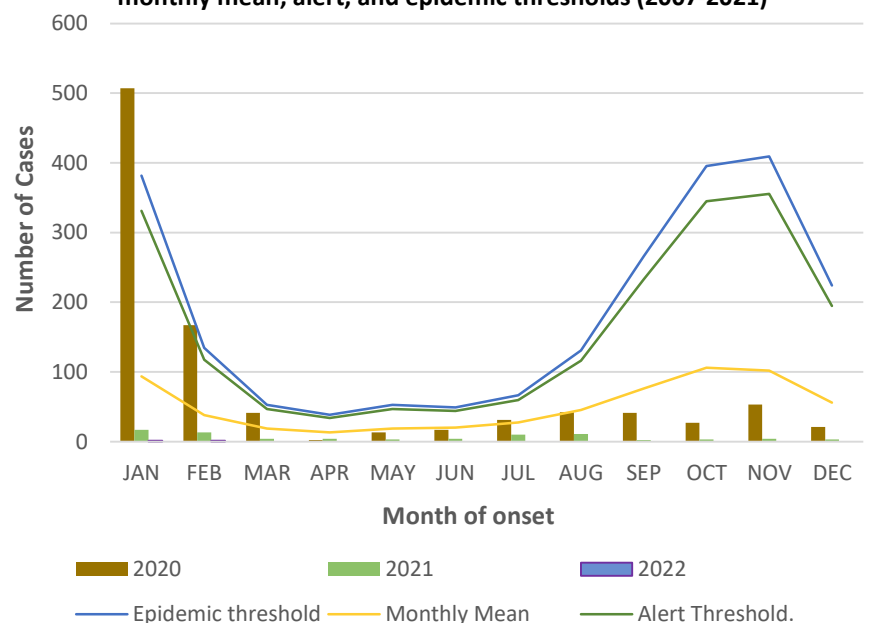
	2022*	
	EW 4	YTD
Total Suspected Dengue Cases	0	0
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at January 13, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2020, 2021 and 2022 versus monthly mean, alert, and epidemic thresholds (2007-2021)



7 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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RESEARCH PAPER

Abstract

Molecular Analysis and Genomic Characterization of Opportunistic Pathogens from the Oral Cavity

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Northern Caribbean University, Jamaica West Indies

Aim: This study aimed at charactering oral opportunistic pathogens of the bacterial species using molecular analysis.

Method: Six oral opportunistic pathogens were isolated, identified and characterized from the oral cavity. They were: *Streptococcus mutans*, *Staphylococcus aureus*, Methicillin Resistant *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Enterococcus spp.* and *Pseudomonas aeruginosa*. DNA was extracted from these pathogens and analyzed using 0.8% agarose gel electrophoresis for the presence of genomic DNA. The DNA samples were further analyzed using Polymerase Chain Reaction (PCR).

Results: The presence of unique virulent genes was seen in each of the DNA samples analyzed. Virulent genes were detected and amplified bacterial genome: *Klebsiella pneumoniae* Uge, Meg A, rmpA, Kfu, fimH. *Staphylococcus aureus* and MRSA TSST-1, enterotoxin A, enterotoxin B, Fem A and *Streptococcus mutans* gtfB, spaP. Amplification of virulent genes implicated the pathogenicity of these oral microbes. Genes encode for proteins that aid in biofilm formation and defense mechanism of the oral microbes.

Conclusion: The study concluded that successful characterization of opportunistic pathogens, inhabiting the oral cavity was significant in providing additional knowledge for efficient control strategies and treatment of oral infections. Further work is being done to identify and examine the possibility of creating antibodies that can focus on antigens in the oral cavity.



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8 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
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