

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Tuberculosis- Symptoms and Treatment



Common symptoms of active lung TB are cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats. WHO recommends the use of rapid molecular diagnostic tests as the initial diagnostic test in all persons with signs and symptoms of TB as they have high diagnostic accuracy and will lead to major improvements in the early detection of TB and drug-resistant TB. Rapid tests recommended by WHO are the Xpert MTB/RIF Ultra and Truenat assays. TB is a treatable and curable disease. Drug-susceptible TB disease is treated with a standard 4-month or 6-month course of 4 antimicrobial drugs that are provided with support to the patient by a health worker or trained treatment supporter. Without such support, treatment adherence is more difficult. Since 2000, an estimated 74 million lives were saved through TB diagnosis and treatment.

Multidrug-resistant TB

TB medicines have been used for decades and strains that are resistant to one or more of the medicines have been documented in every country surveyed. Drug resistance emerges when TB medicines are used inappropriately, through incorrect prescription by health care providers, poor quality drugs, and patients stopping treatment prematurely.

Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the 2 most effective first-line TB drugs. MDR-TB is treatable and curable by using second-line drugs. However, second-line treatment options are limited and require extensive chemotherapy (of at least 9 months and up to 20 months of treatment) with medicines that are expensive and toxic.

<https://www.who.int/news-room/fact-sheets/detail/tuberculosis>

EPI WEEK 45



SYNDROMES

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CLASS 1 DISEASES

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RESEARCH PAPER

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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 - 42 to 45 of 2022

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

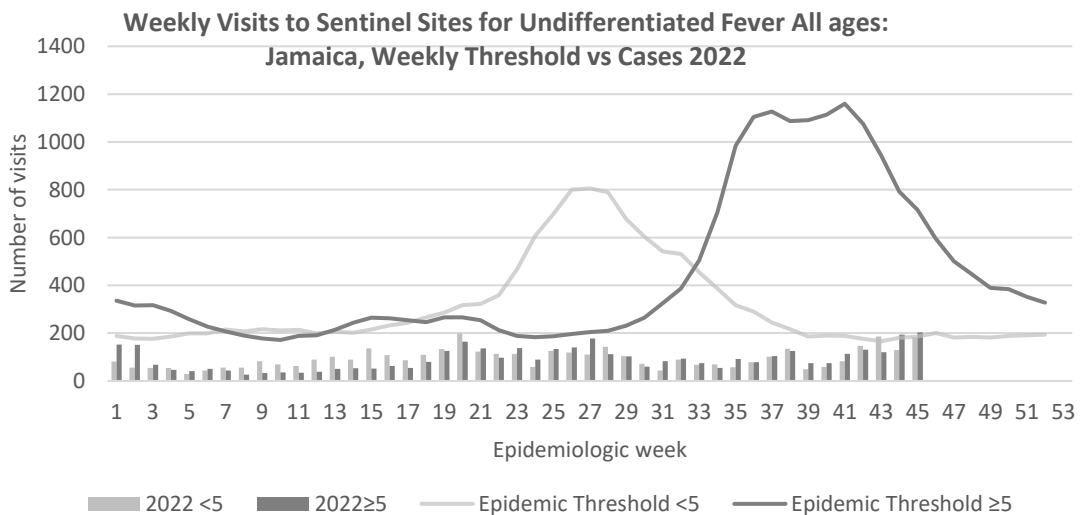
KEY:
Yellow - late submission on Tuesday
Red - late submission after Tuesday


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												
42	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
43	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
44	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
45	On Time	On Time	Late (T)	Late (T)	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.



 **2 NOTIFICATIONS-** All clinical sites

 **INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events

 **HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued

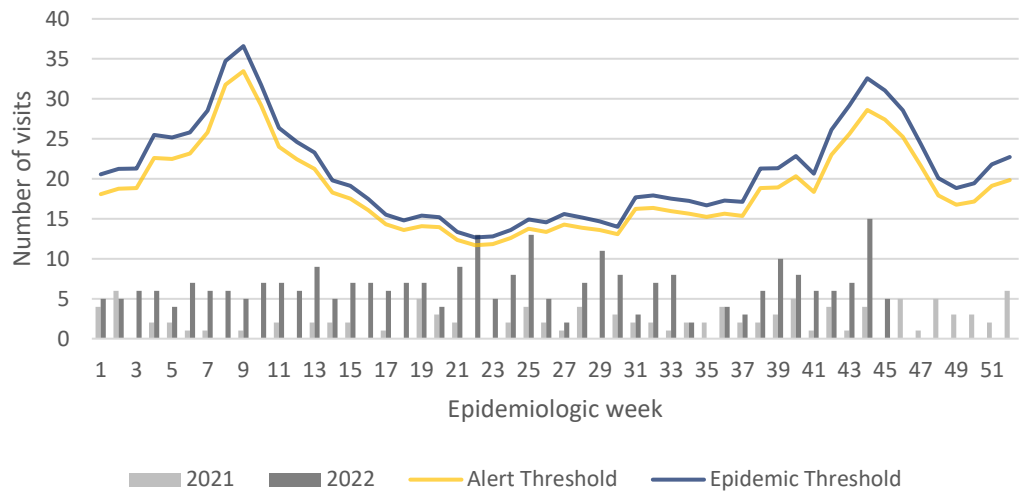
 **SENTINEL REPORT-** 78 sites. Automatic reporting

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

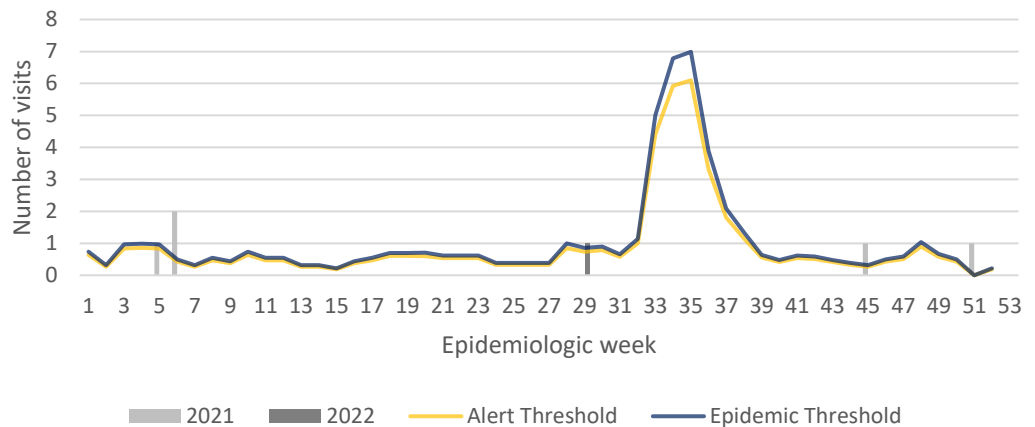


FEVER AND HAEMORRHAGIC

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



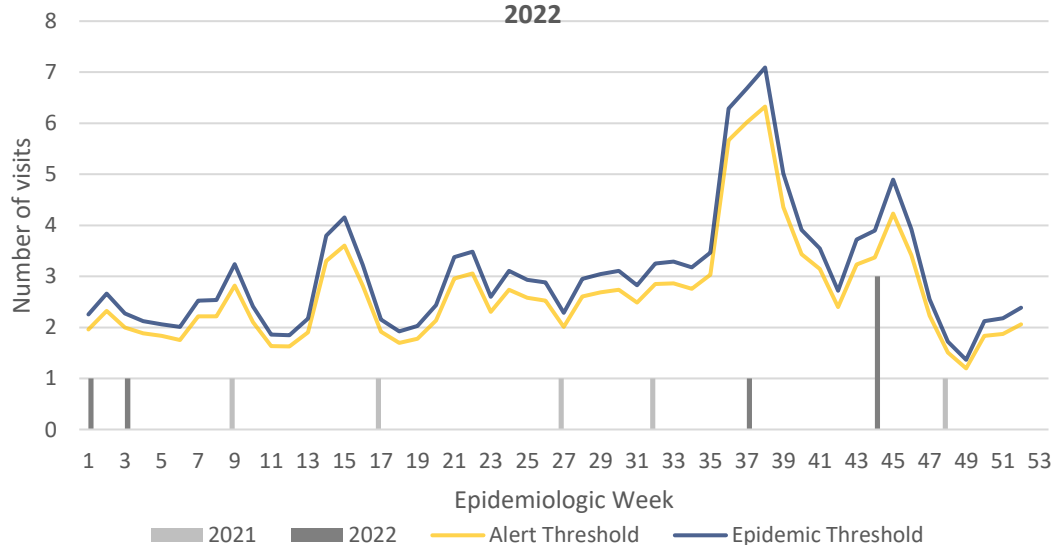
FEVER AND JAUNDICE

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



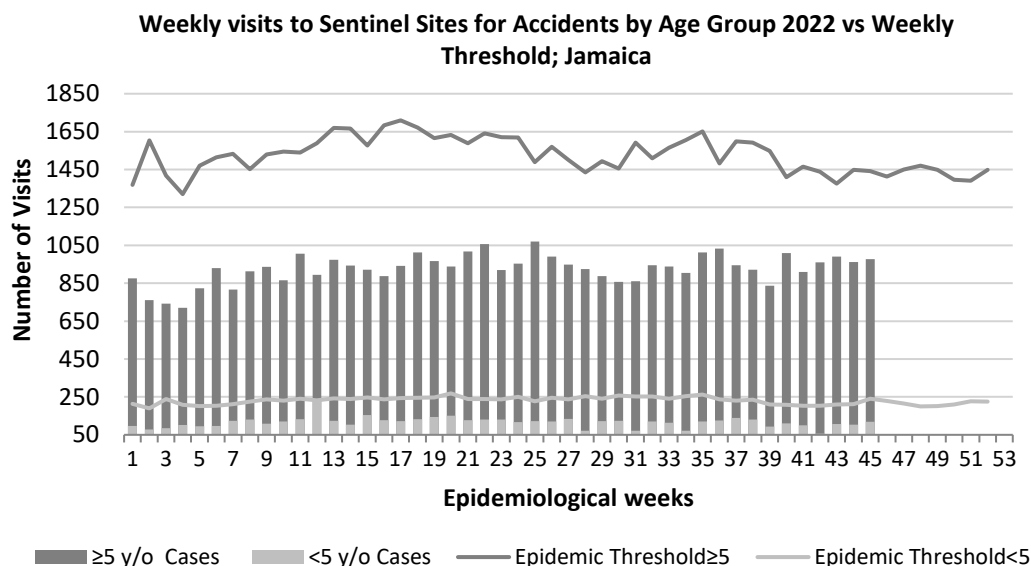
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

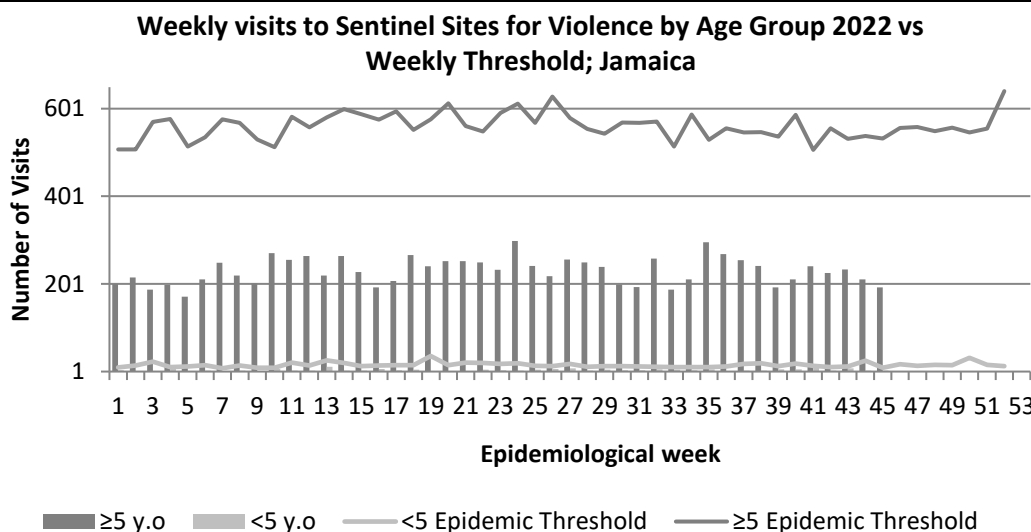
ACCIDENTS

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



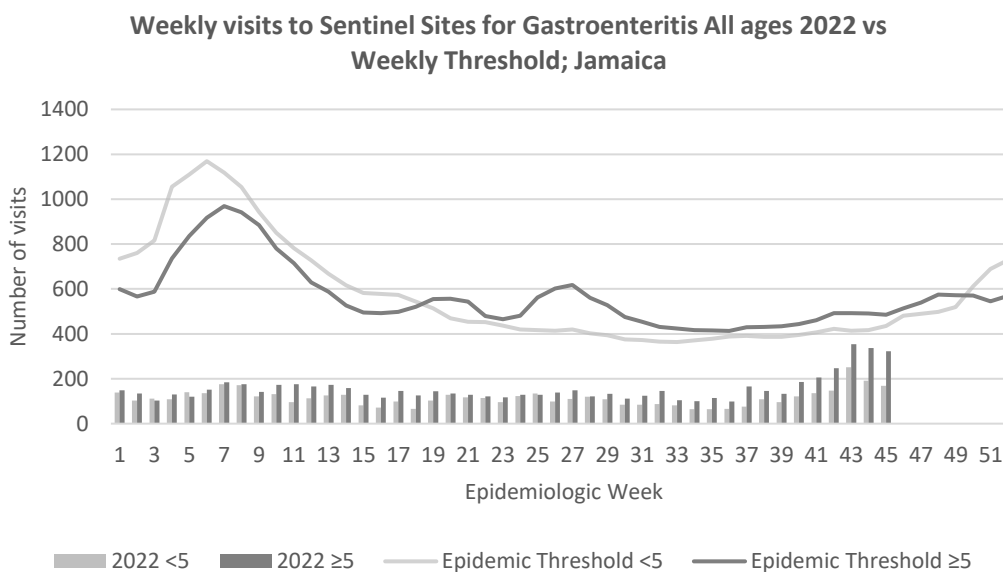
VIOLENCE

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



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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	196 ^β	162 ^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. ^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.
	Cholera	0	0	
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below	
	COVID-19 (SARS-CoV-2)	55353	77042	
	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)	18	34	
	Monkeypox	16	NA	
EXOTIC/ UNUSUAL	Plague	0	0	
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	54	76	
	Ophthalmia Neonatorum	48	40	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	0	
	Tuberculosis	34	38	
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
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30 sites. Actively
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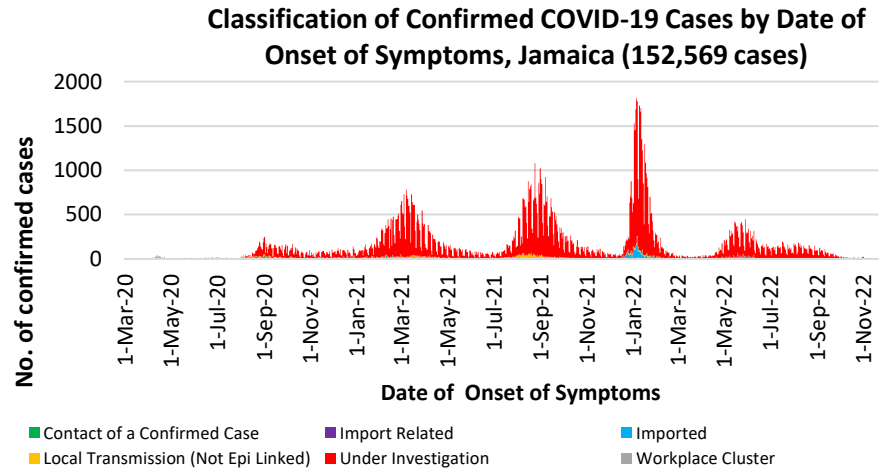
SENTINEL
REPORT- 78 sites.
Automatic reporting

COVID-19 Surveillance Update

March 10, 2020 – EW 45, 2022

CASES	EW 45	Total
Confirmed	43	152569
Females	26	88030
Males	17	64536
Age Range	34 days old–98 years	1 day to 108 years

* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases

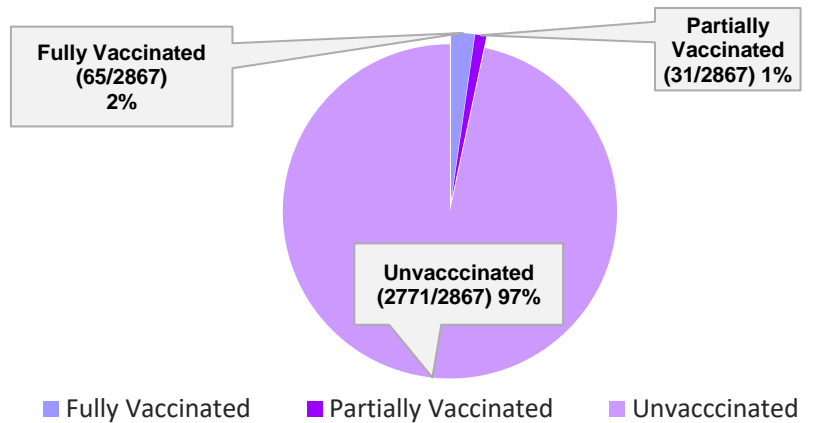


COVID-19 Outcomes

Outcomes	EW 45	Total
ACTIVE *past 2 weeks*		117
DIED – COVID Related	4	3421
Died - NON COVID	0	291
Died - Under Investigation	1	302
Recovered and discharged	16	101735
Repatriated	0	93
Total		152569

*Vaccination programme March 2021 – YTD

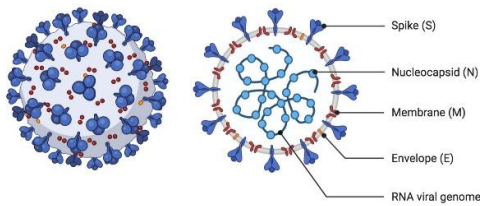
2867 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

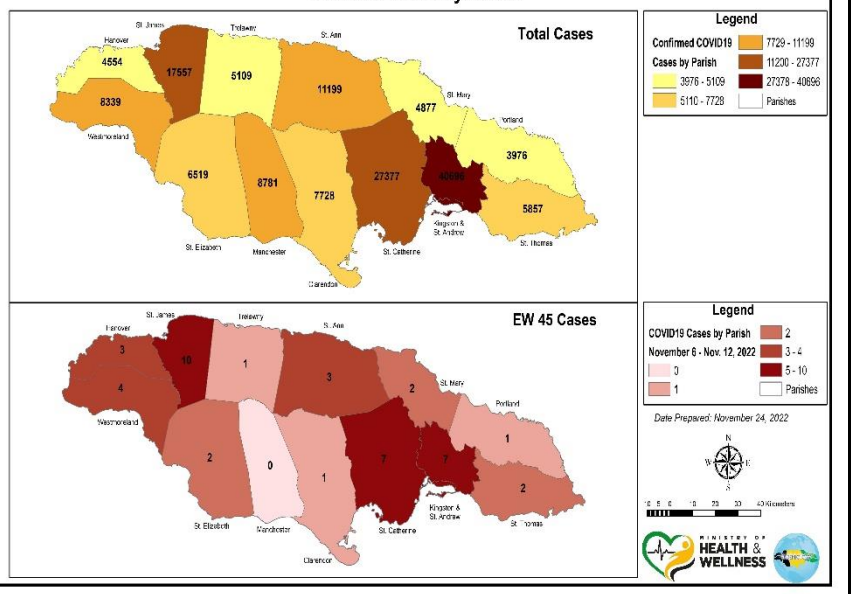
SARS-CoV-2



COVID-19 WHO Global Statistics EW42-EW45

Epi Week	Confirmed Cases	Deaths
42	2,465,861	9,671
43	2,215,127	9,657
44	2,412,513	7,998
45	2,533,370	8,071
Total (4weeks)	9,626,871	35,397

COVID19 Cases by Parish



6 NOTIFICATIONS-
All clinical sites

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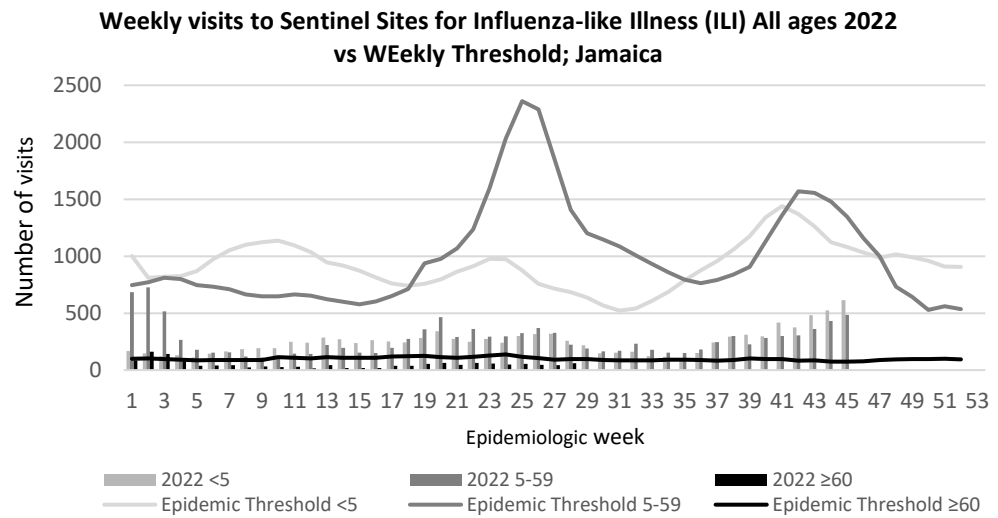
SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 45

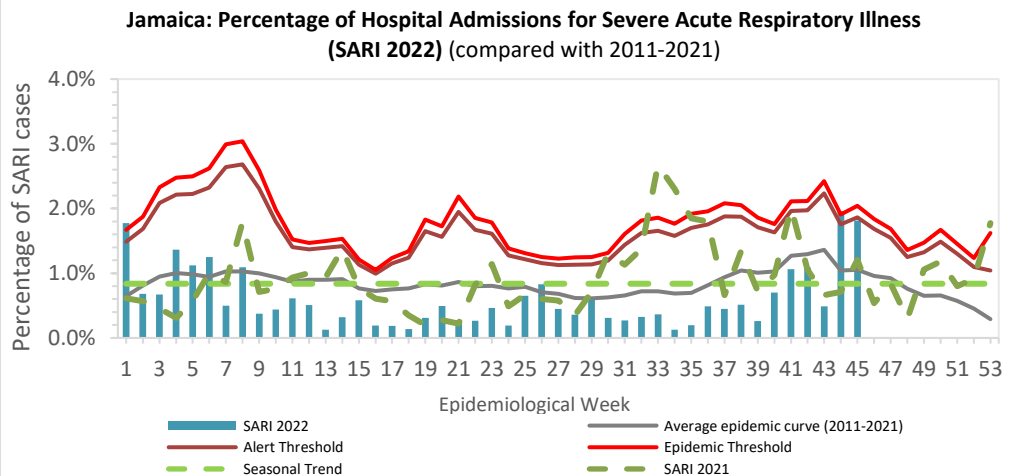
November 6 – Nov 12, 2022 Epidemiological Week 45

	<i>EW 45</i>	<i>YTD</i>
SARI cases	34	441
Total Influenza positive Samples	0	28
Influenza A	1	28
H3N2	0	25
H1N1pdm09	0	2
Not subtyped	1	1
Influenza B	0	0
Parainfluenza	0	0



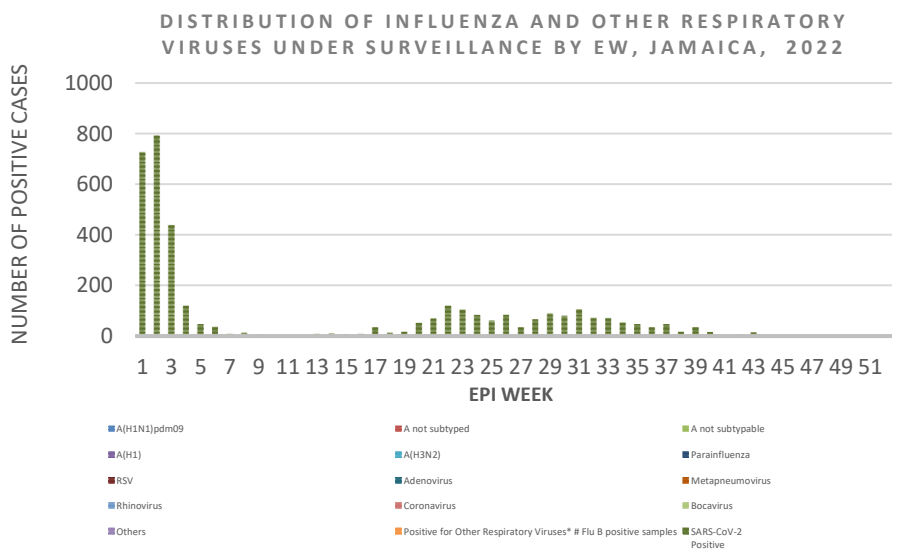
Epi Week Summary

During EW 45 thirty-four (34) SARI admissions were reported.



Caribbean Update EW 45

Caribbean : Influenza activity remained low across the subregion with A(H3N2) virus predominance and co-circulation of influenza B (lineage undetermined). The SARS-CoV-2 activity was very low. Influenza activity is increasing in Jamaica and Puerto Rico. ILI activity remained elevated in Guadeloupe and Martinique.



7 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

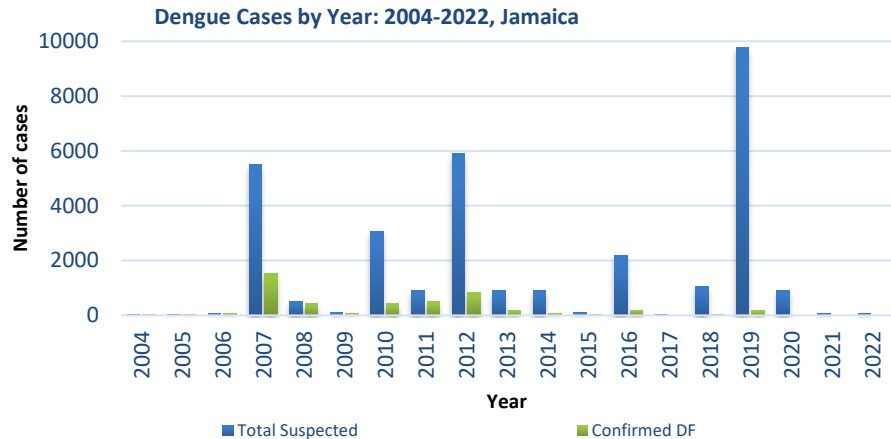
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Dengue Bulletin

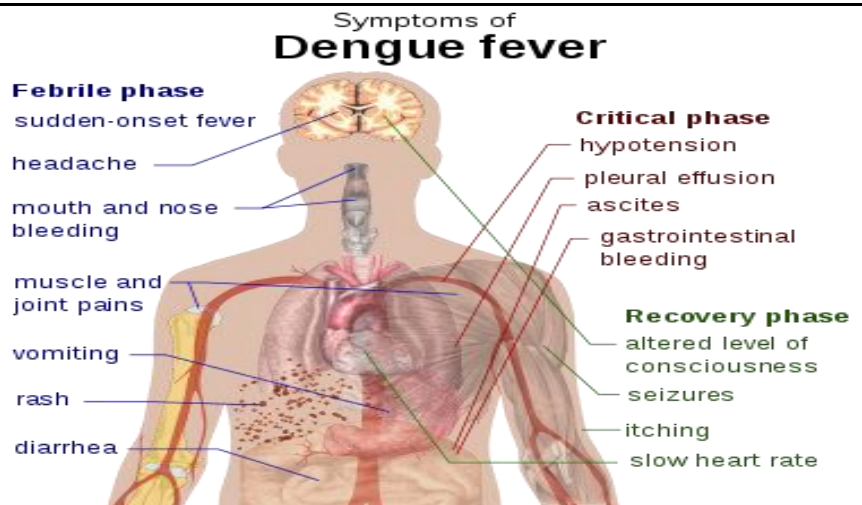
November 6- November 12, 2022 Epidemiological Week 45

Epidemiological Week 45



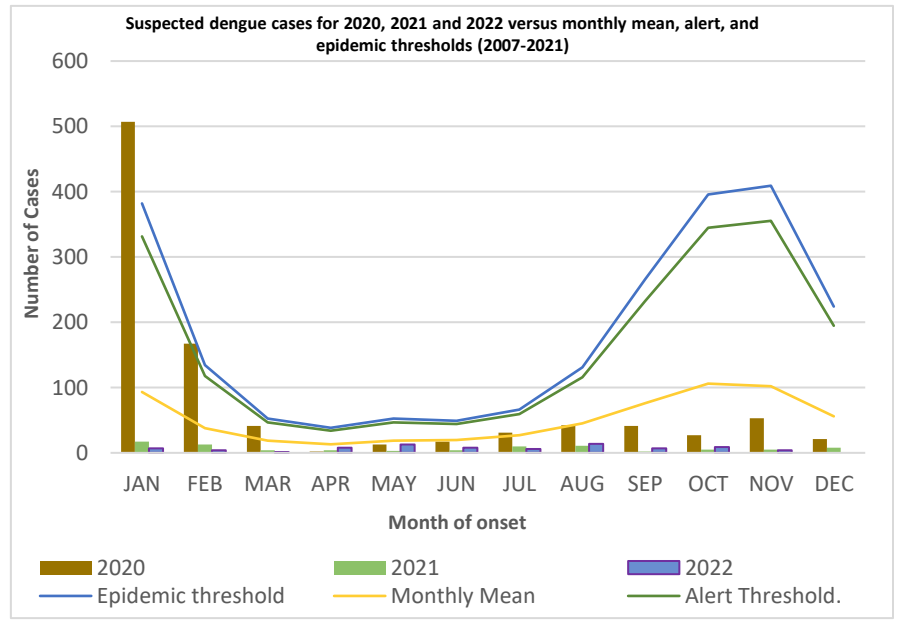
Reported suspected and confirmed dengue with symptom onset in week 45 of 2022

	2022*	
	EW 45	YTD
Total Suspected Dengue Cases	4	81
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at Nov 12, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



8 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

Abstract

THE EPIDEMIOLOGY OF OSTEOMYELITIS IN THE SICKLE CELL POPULATION OF JAMAICA

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Indies*

Introduction: Knowing the most likely causative organism causing osteomyelitis in the sickle cell population is crucial in implementing empirical therapy; the most common causative organism varies globally.

Objectives: To determine the epidemiology of culture proven osteomyelitis in patients who attended the Sickle Cell Unit (SCU) from 2008- 2018, in particular, to determine the most common organisms and whether there was an association of the causal organism with patient location or disease severity.

Methods: Ethical approval was obtained from The University of the West Indies Ethics Committee. The charts of all eligible patients were examined. The gender, age, address of individuals and the site of the osteomyelitis and causative organism were extracted. Polyostotic episodes and those which required greater than 42 days of antibiotics were deemed severe. Data were analyzed using SPSS; associations were assessed using the Pearson Chai- Squared Test.

Results: Forty three patients met the inclusion criteria; 26 males and 17 females with the mean age being 16.5 years (Range 1-60). St. Catherine was the most common parish. The most prevalent organisms included Salmonella (42%), Staphylococcus Aureus (26%) and Enterobacter (12%). Commonly affected sites included the Tibia (44%), Humerus (26%) and Femur (16%), 7% were severe. There was no association between the causal organism and patient location ($p=0.196$) or disease severity ($p=0.367$).

Conclusion: Salmonella was the most common organism causing osteomyelitis in persons attending the SCU. Specific education of patients in avoidance of exposure to this organism may be helpful.



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
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