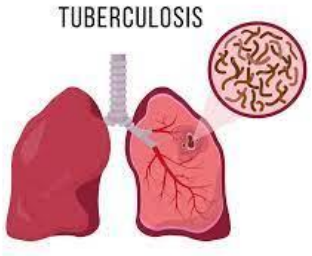
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Tuberculosis



Tuberculosis (TB) is caused by bacteria(Mycobacterium tuberculosis) that most often affect the lungs. Tuberculosis is curable and preventable.TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.When a person develops active TB disease, the symptoms (such as cough, fever, night sweats, or weight loss) may be mild for many months. This can lead to delays in seeking care, and results in transmission of the bacteria to others.

People with active TB can infect 5–15 other people through close contact over the course of a year. Without proper treatment, 45% of HIV-negative people with TB on average and nearly all HIV-positive people with TB will die.People infected with TB bacteria have a 5–10% lifetime risk of falling ill with TB. Those with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a higher risk of falling ill.

Who is most at risk?

Tuberculosis mostly affects adults in their most productive years. However, all age groups are at risk. Over 80% of cases and deaths are in low- and middle-income countries.People who are infected with HIV are 18 times more likely to develop active TB (see TB and HIV section below). The risk of active TB is also greater in persons suffering from other conditions that impair the immune system. People with undernutrition are 3 times more at risk. Globally in 2021, there were 2.2 million new TB cases that were attributable to undernutrition.

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

EPI WEEK 44

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 – 41 to 44 of 2022

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

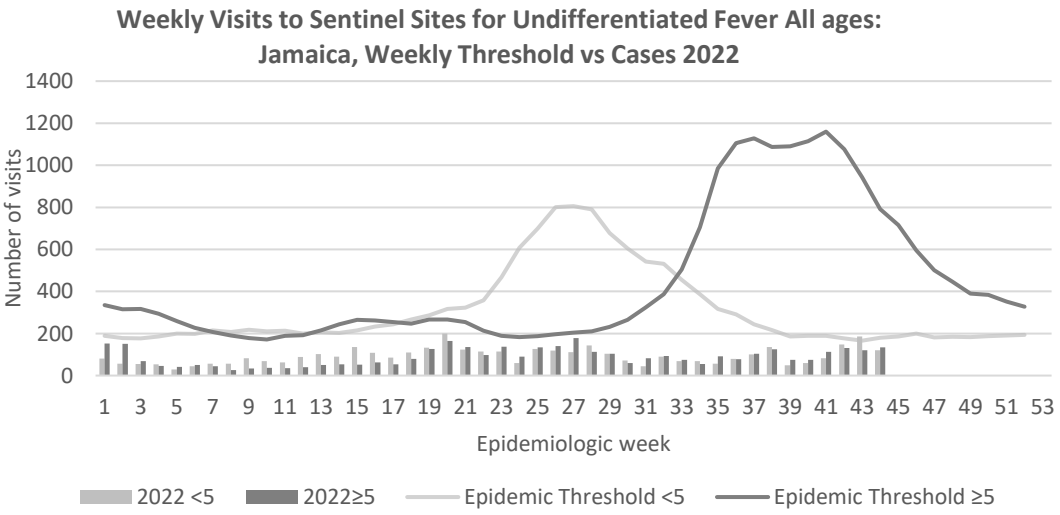
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

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													
41	On Time	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)
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

REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of $>38^0C$ /100.4^0F (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

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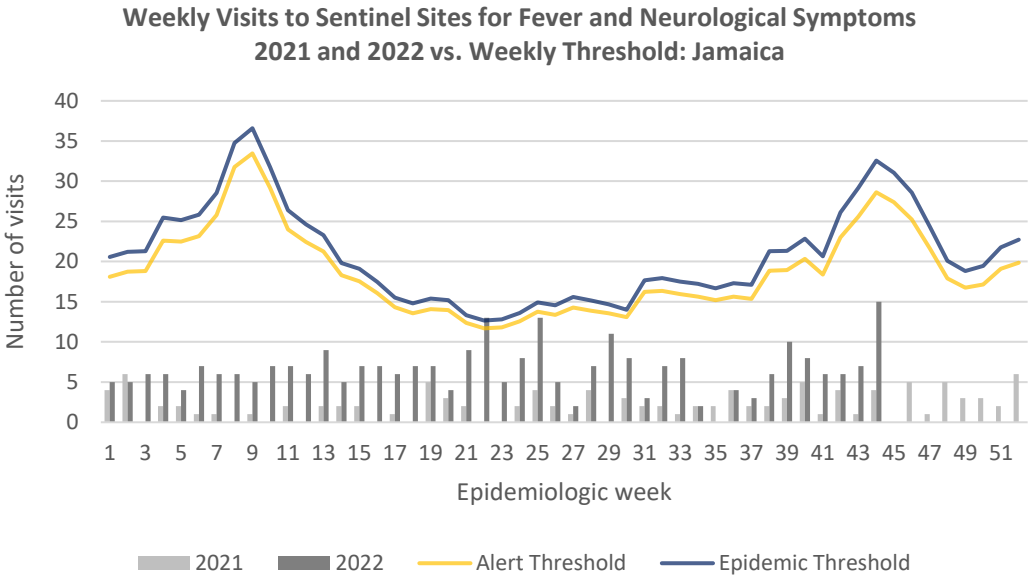
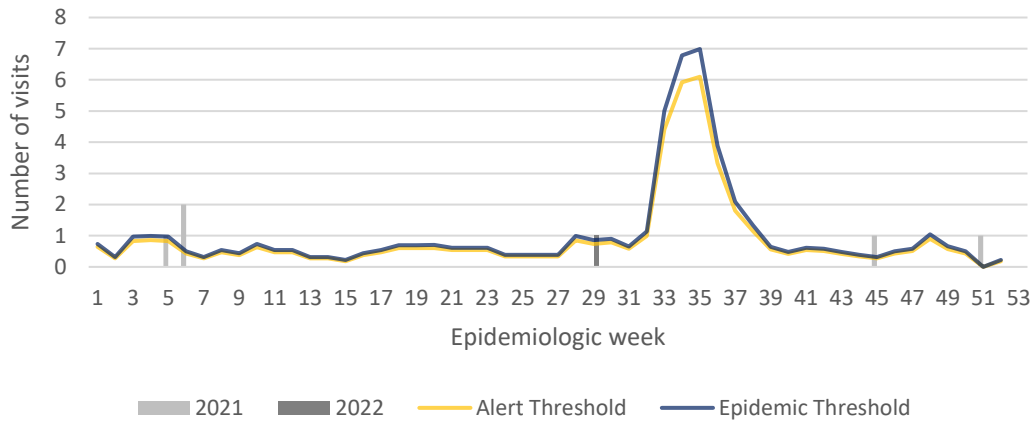
FEVER AND NEUROLOGICAL

Temperature of >38^{0}C /100.4^{0}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

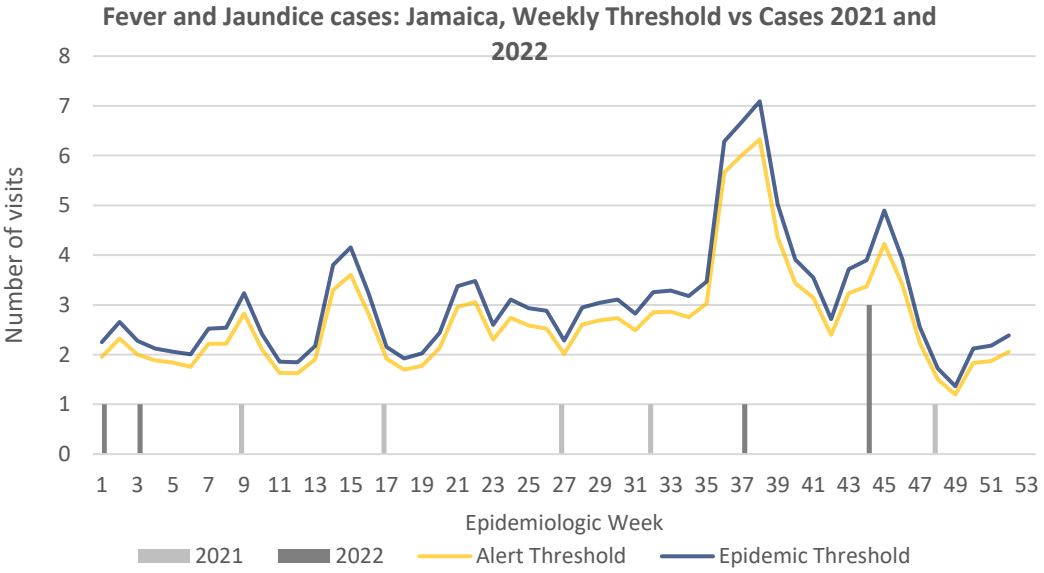
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE

Temperature of >38^0C /100.4^0F (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.



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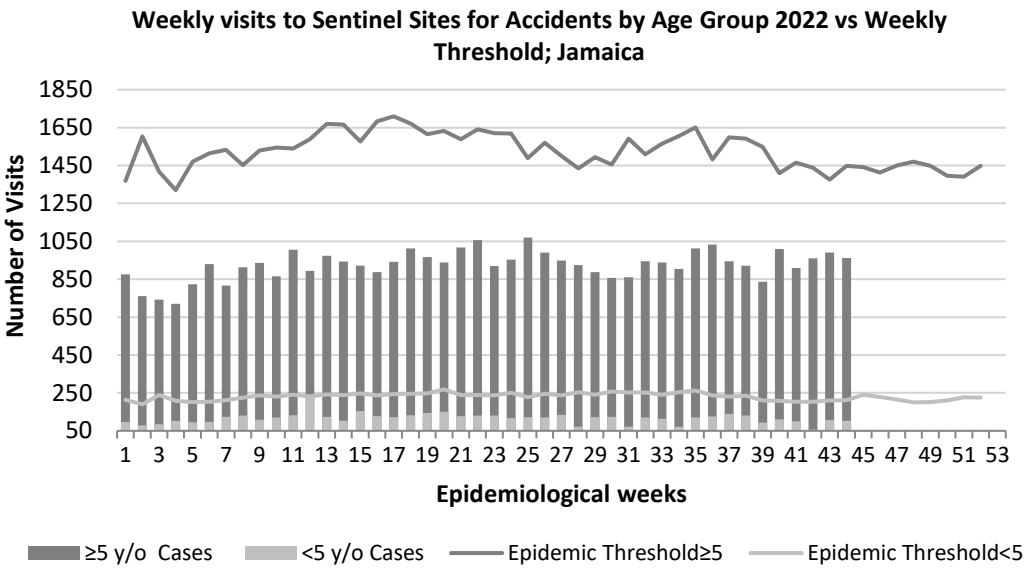
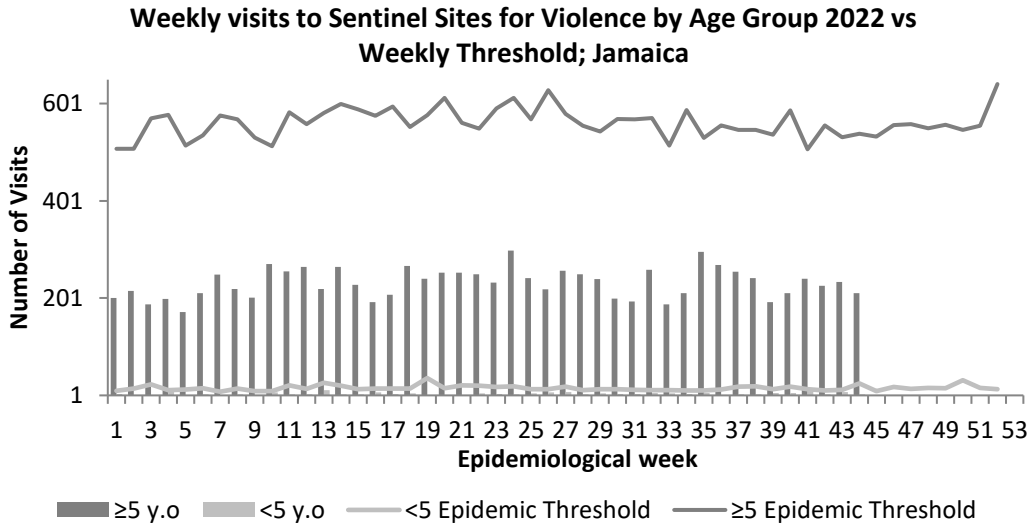
ACCIDENTS

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



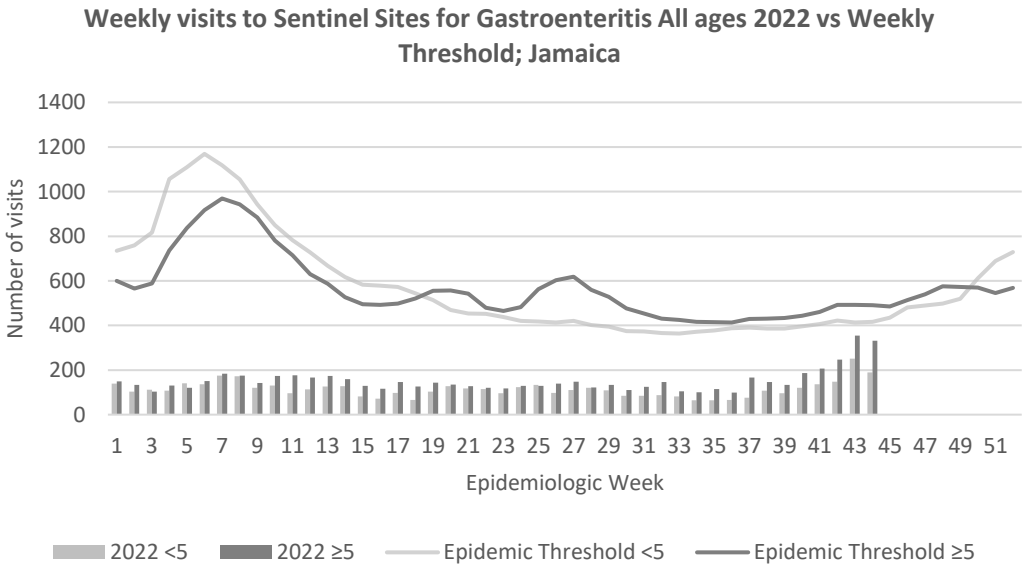
VIOLENCE

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.



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CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS	Confirmed YTD[α] CURRENT YEAR 2022	Confirmed YTD[α] PREVIOUS YEAR 2021
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	196[β]	152[β]
	Cholera	0	0
	Dengue Hemorrhagic Fever[γ]	See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)	55304	76545
	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)	17	34
	Monkeypox	16	NA
EXOTIC/ UNUSUAL	Plague	0	0
H IGH 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
	Fever and Rash – 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	37
	Yellow Fever	0	0
	Chikungunya[ε]	0	0
	Zika Virus[θ]	0	0

Comments

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.

NA- Not Available

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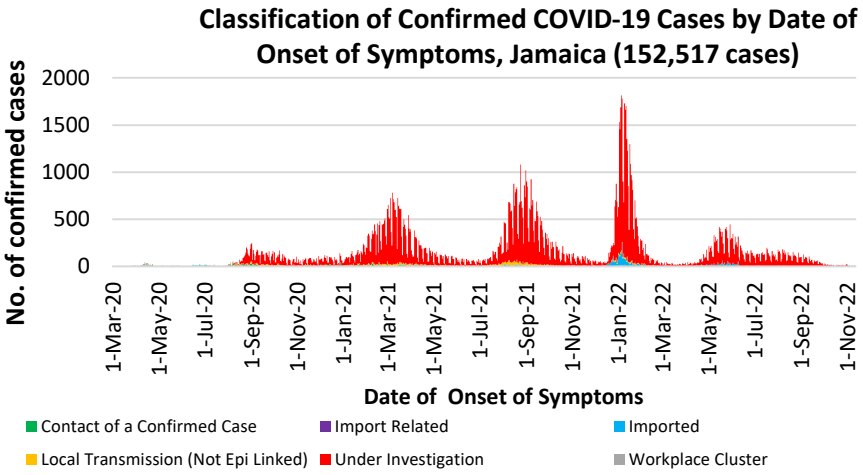
COVID-19 Surveillance Update

March 10, 2020 – EW 44 , 2022

CASES	EW 44	Total
Confirmed	92	152517
Females	44	87998
Males	48	64516
Age Range	27 days old–103 years	1 day to 108 years

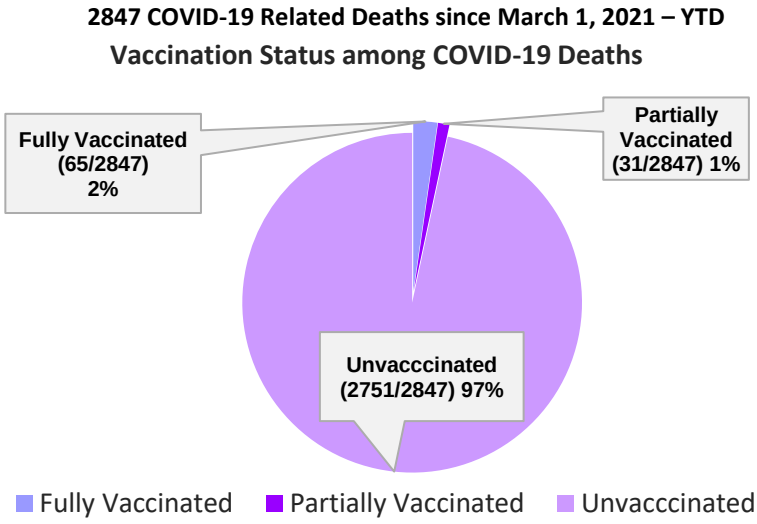
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases



COVID-19 Outcomes

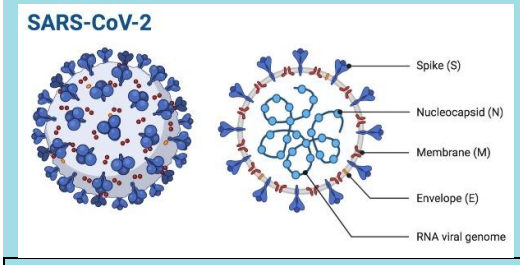
Outcomes	EW 44	Total
ACTIVE *past 2 weeks*		123
DIED – COVID Related	0	3399
Died - NON COVID	0	291
Died - Under Investigation	1	293
Recovered and discharged	33	101566
Repatriated	0	93
Total		152517

*Vaccination programme March 2021 – YTD



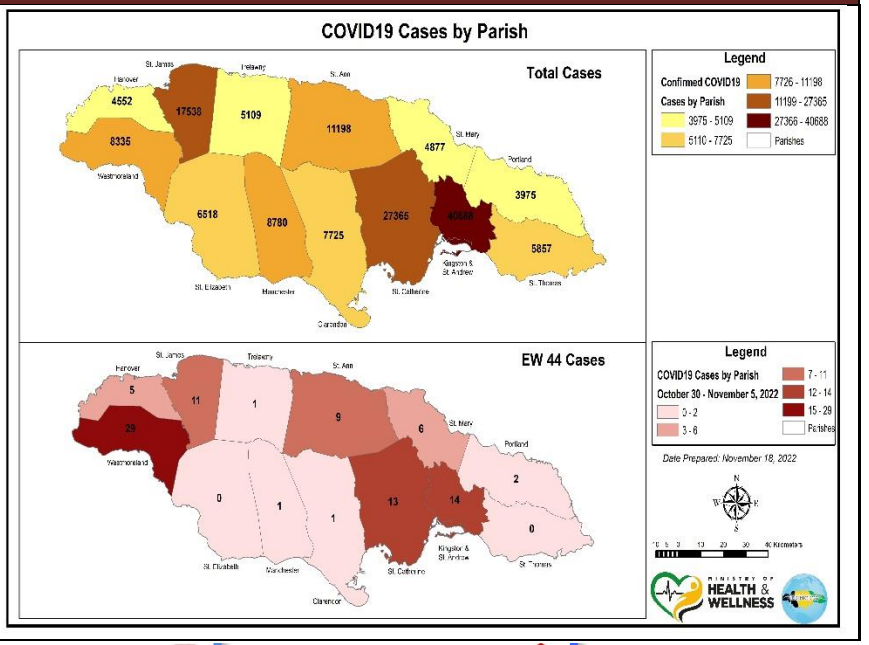
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW41-EW44

Epi Week	Confirmed Cases	Deaths
41	2,805,405	8,948
42	2,465,861	9,671
43	2,215,127	9,657
44	2,412,513	7,998
Total (4weeks)	**9,898,906**	**36,274**



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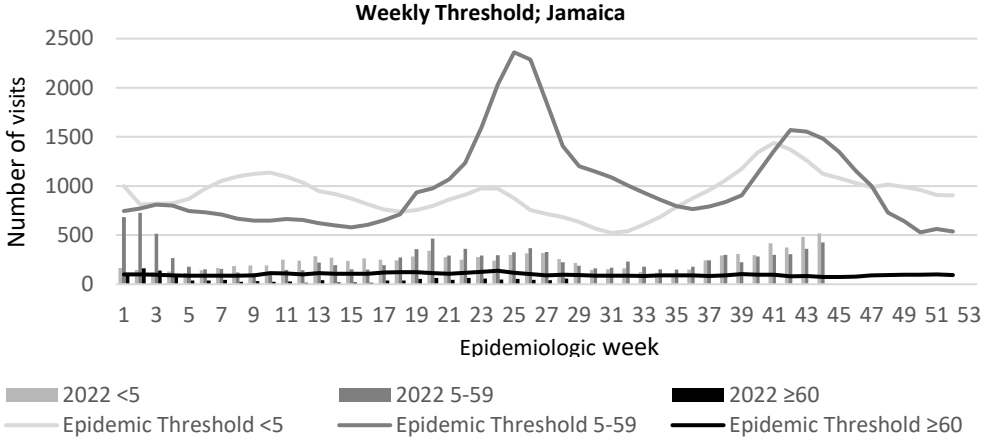
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 44

October 30 – Nov 5, 2022 Epidemiological Week 44

	EW 44	*YTD*
SARI cases	*29*	*400*
Total Influenza positive Samples	*0*	*27*
Influenza A	*1*	*27*
H3N2	*0*	*25*
H1N1pdm09	*1*	*2*
Not subtyped	*0*	*0*
Influenza B	*0*	*0*
Parainfluenza	*0*	*0*

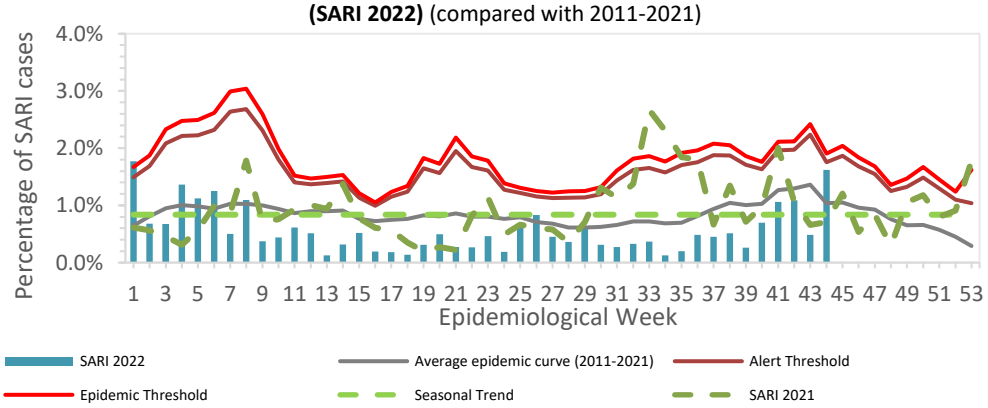
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2022 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 44 twenty-nine (29) SARI admissions were reported.

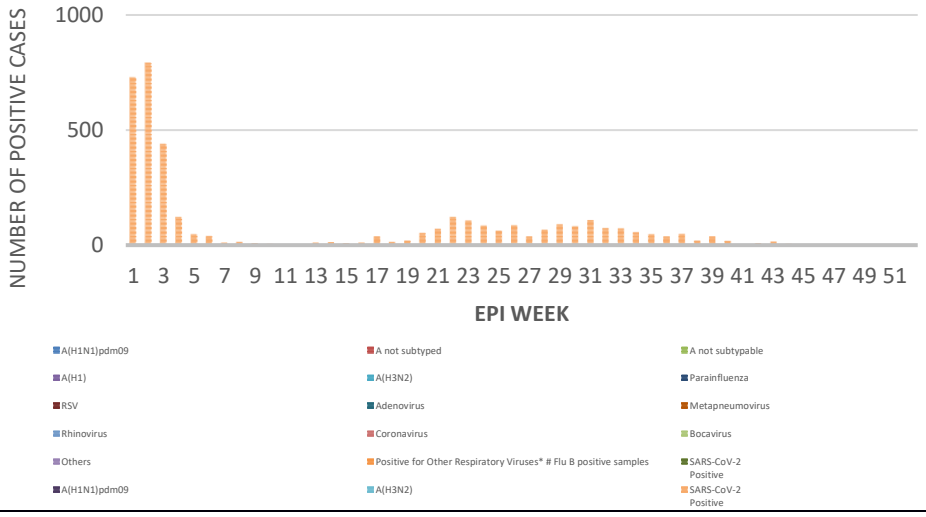
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2022) (compared with 2011-2021)



Caribbean Update EW 44

Caribbean : Influenza activity remained low across the subregion with A(H3N2) virus predominance. Influenza activity is increasing in Jamaica and Puerto Rico. The SARS-CoV-2 activity was raised in Dominica.

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



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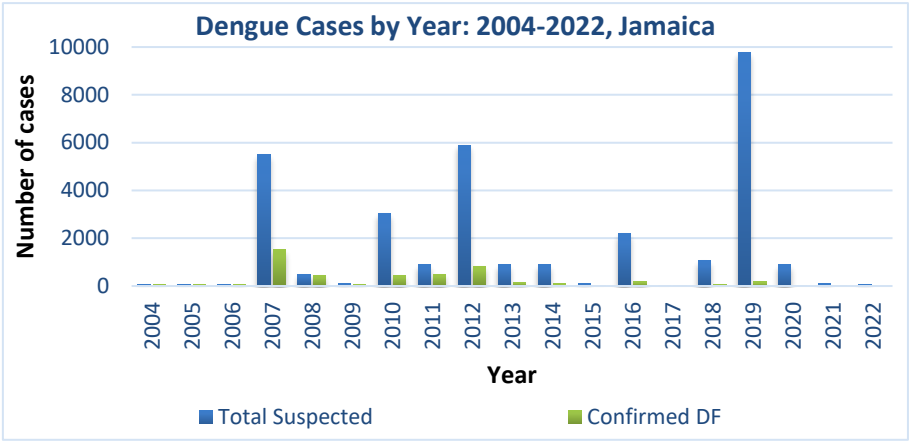
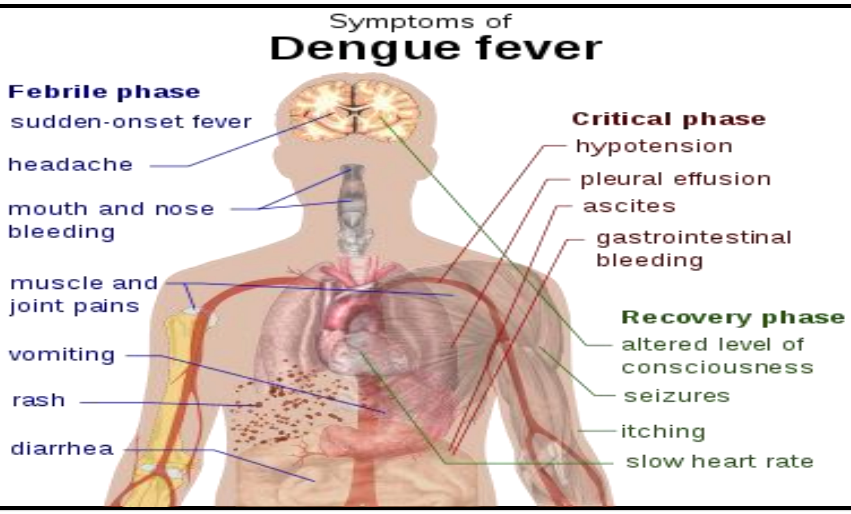
Dengue Bulletin

October 30- November 5, 2022 Epidemiological Week 44 | Epidemiological Week 44



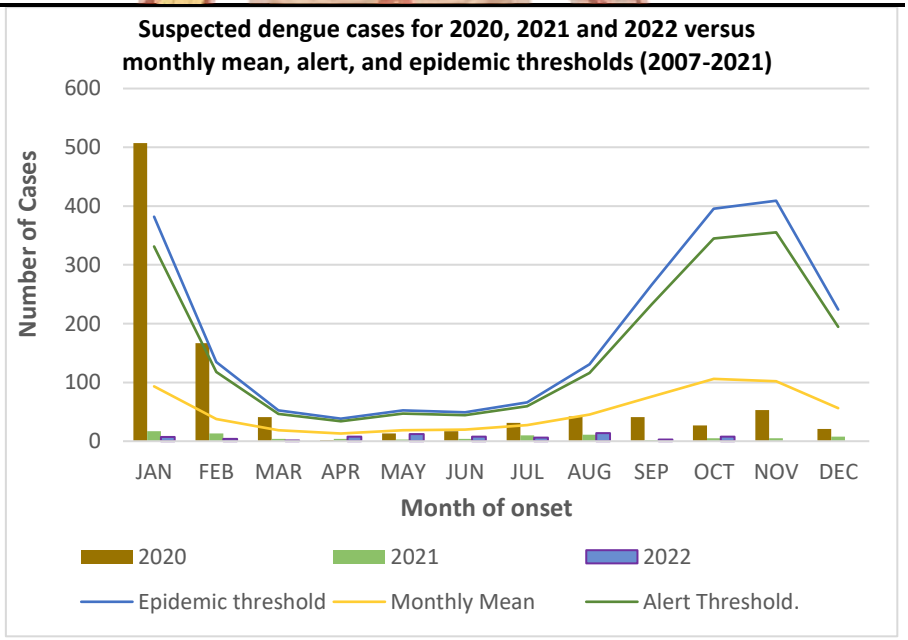
Reported suspected and confirmed dengue with symptom onset in week 44 of 2022

	2022*	
	EW 44	YTD
Total Suspected Dengue Cases	0	71
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at Nov 5, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

Abstract

Entada gigas: Underutilized Plant for Food and Nutrition from an Indigenous Community in Jamaica

Foster S R, Randle M M, Bozra D, Riley C K, Watson C T
Scientific Research Council, Kingston, Jamaica

Background: *Entada gigas* (cacoon) is a leguminous plant used by the Accompong maroons from St. Elizabeth, Jamaica, for medicinal and nutritional purposes. The plant seeds contain high protein levels, but are underutilized due to the anti-nutrients present.

Objectives: The effects of three processing methods (soaking, cooking and autoclaving) on proximate composition, anti-nutritional compounds and mineral content of *E. gigas* seeds collected were investigated.

Methods: Qualitative and quantitative evaluations of active phytochemical constituents, proximate and mineral analyses were performed on differentially processed *E. gigas* seed extracts using standard assays.

Results: Nutritional composition of mature *E. gigas* seeds corresponds with most edible legumes containing per 100 g edible portion: carbohydrate 50-55 g, protein 21-26 g, fat 15-20 g, crude fibre 5.3 g, and moisture 4.4 -5.9 g. Essential minerals including calcium (84.87 mg/L), iron (3.24 mg/L), potassium (793 mg/L), magnesium (112 mg/L), manganese (0.94 mg/L), sodium (7.24 mg/L) and zinc (1.49 mg/L) were also detected. Flavonoids, glycosides, steroids, terpenoids, saponins, tannins and phenols were among the phytochemicals present. Anti-nutritional substances present in the raw seeds, were effectively diminished after soaking for 21 days without significantly affecting the nutritionally beneficial compounds.

Conclusion: *Entada gigas* has nutritive values, comparable to other plant protein sources. Hence, its utilization is encouraged provided that an appropriate processing method is used to reduce the anti-nutrient content.

(Funded by Scientific Research Council)

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