

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Biodiversity and Health



Biodiversity underpins all life on Earth, and refers to biological variety in all its forms, from the genetic makeup of plants and animals to cultural diversity.

People depend on biodiversity in their daily lives, in ways that are not always apparent or appreciated. Human health ultimately depends upon ecosystem products and services (such as availability of fresh water, food and fuel sources) which are requisite for good human health and productive livelihoods.

Biodiversity loss can have significant direct human health impacts if ecosystem services are no longer adequate to meet social needs. Indirectly, changes in ecosystem services affect livelihoods, income, local migration and, on occasion, may even cause or exacerbate political conflict. Additionally, biological diversity of microorganisms, flora and fauna provides extensive benefits for biological, health, and pharmacological sciences. Significant medical and pharmacological discoveries are made through greater understanding of the earth's biodiversity. Loss in biodiversity may limit discovery of potential treatments for many diseases and health problems.



There is growing concern about the health consequences of biodiversity loss. Biodiversity changes affect ecosystem functioning and significant disruptions of ecosystems can result in life sustaining ecosystem goods and services. Biodiversity loss also means that we are losing, before discovery, many of nature's chemicals and genes, of the kind that have already provided humankind with enormous health benefits.

<https://www.who.int/news-room/fact-sheets/detail/biodiversity-and-health>

EPI WEEK 49



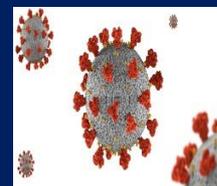
- Syndromic Surveillance
- Accidents
- Violence

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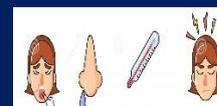
Class 1 Notifiable Events

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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 - 46 to 49 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												
46	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
47	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
48	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
49	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

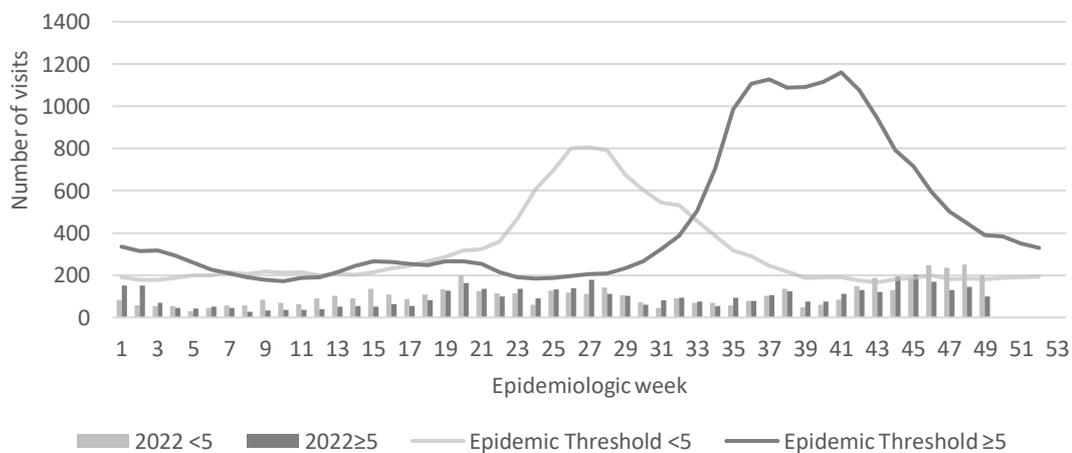
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of $>38^{\circ}C$ / $100.4^{\circ}F$ (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 2022



 **2 NOTIFICATIONS-**
All clinical sites

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

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

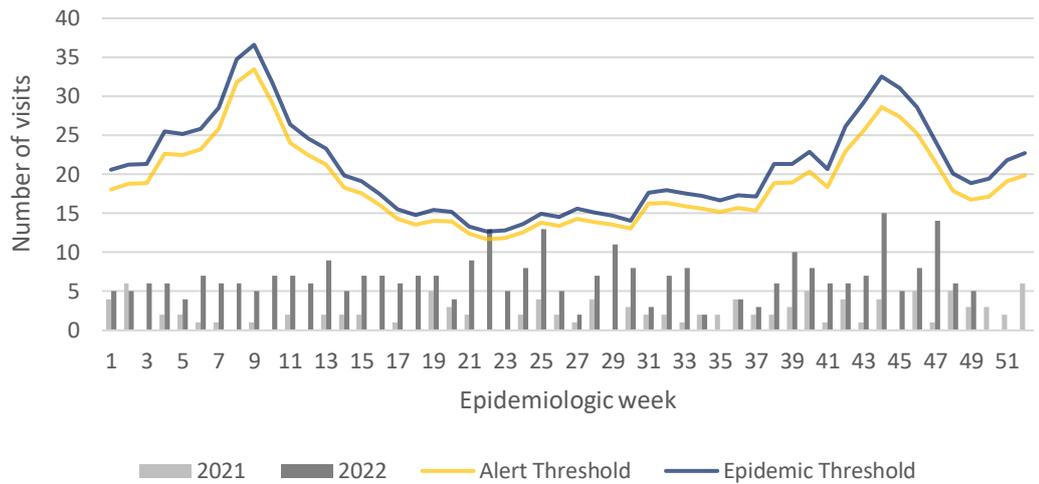
 **SENTINEL REPORT-** 78 sites. Automatic reporting

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).



Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2021 and 2022 vs. Weekly Threshold: Jamaica

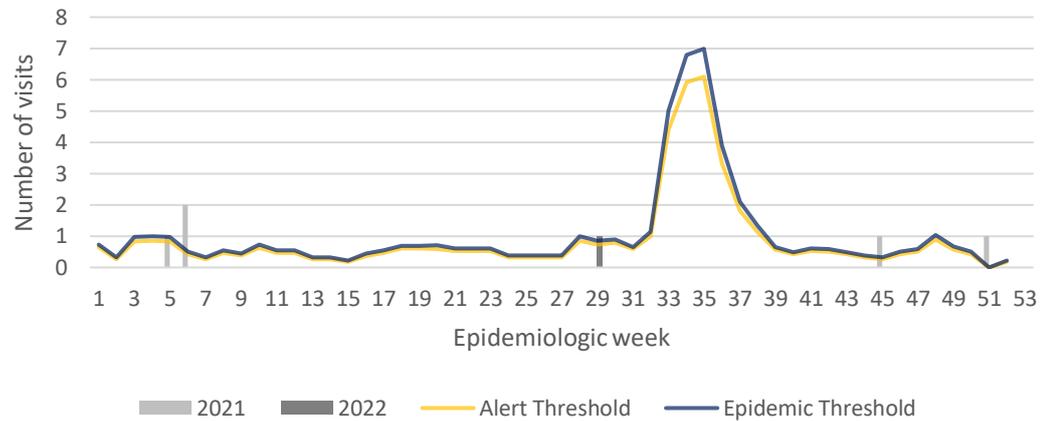


FEVER AND HAEMORRHAGIC

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



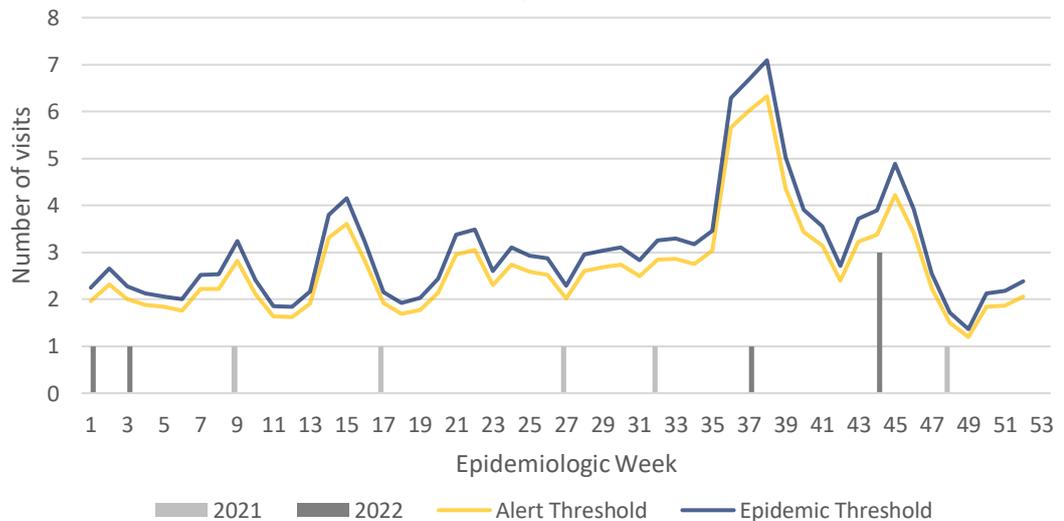
FEVER AND JAUNDICE

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



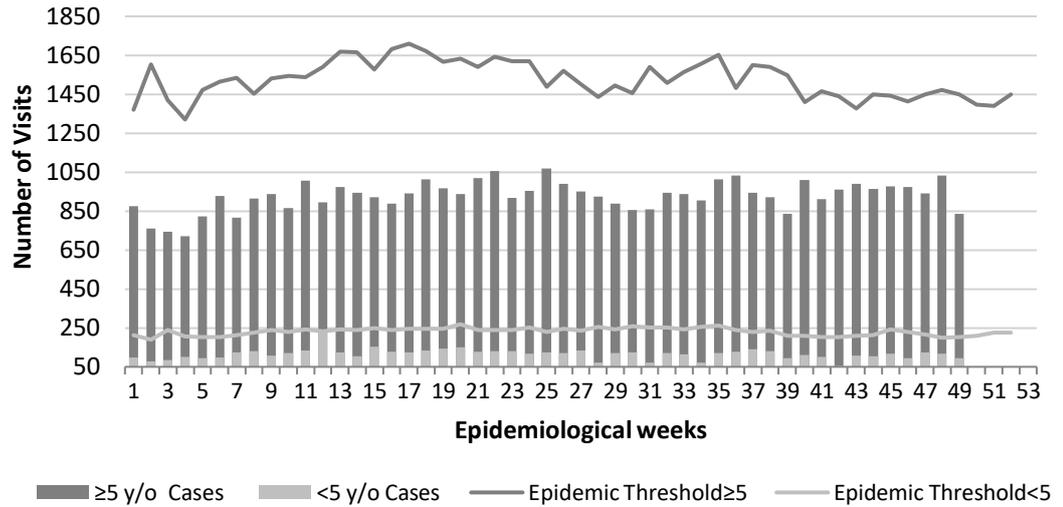
SENTINEL REPORT- 78 sites. Automatic reporting

ACCIDENTS

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



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

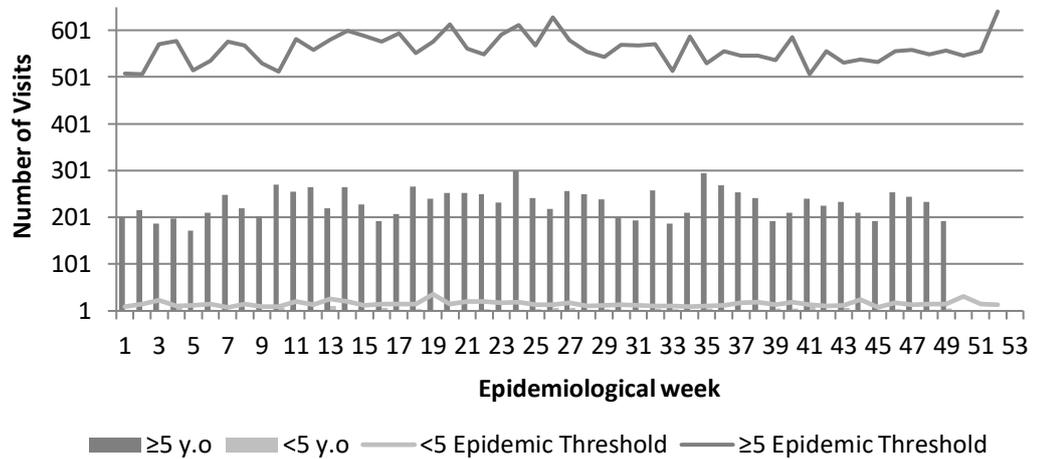


VIOLENCE

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

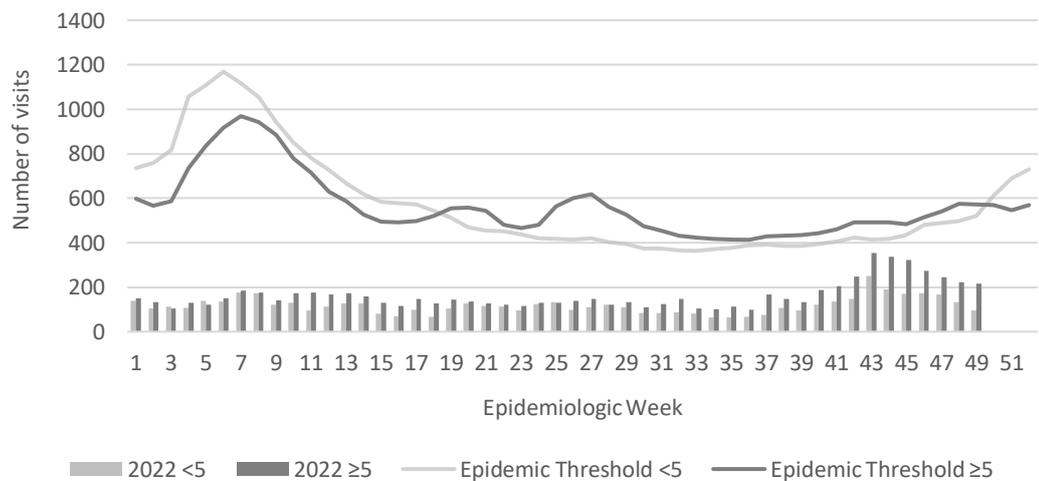


GASTROENTERITIS

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



Weekly visits to Sentinel Sites for Gastroenteritis All ages 2022 vs Weekly Threshold; Jamaica



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 2022	PREVIOUS YEAR 2021		
NATIONAL/INTERNATIONAL INTEREST	Accidental Poisoning	196 ^β	170 ^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)	55554	78543		
	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	18	NA		
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	59	82		
	Ophthalmia Neonatorum	48	40		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	2	0		
Tuberculosis	46	38			
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 up for all Class One Events

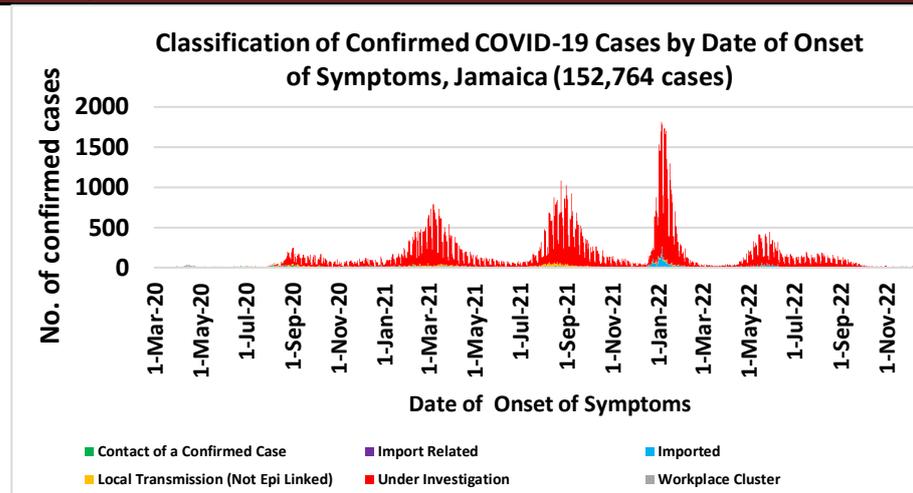
 HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

 SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

March 10, 2020 – EW 49, 2022

CASES	EW 49	Total
Confirmed	46	152764
Females	25	88138
Males	21	64623
Age Range	61 days old – 81 years	1 day to 108 years
* 3 positive cases had no gender specification * PCR or Antigen tests are used to confirm cases		

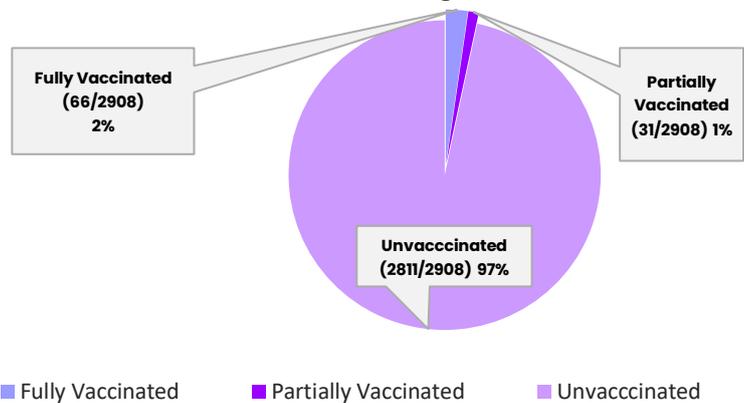


COVID-19 Outcomes

Outcomes	EW 49	Total
ACTIVE *past 2 weeks*		98
DIED – COVID Related	0	3464
Died - NON COVID	0	295
Died - Under Investigation	0	353
Recovered and discharged	6	101996
Repatriated	0	93
Total		152764

*Vaccination programme March 2021 – YTD

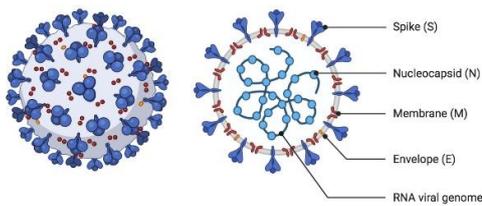
2908 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

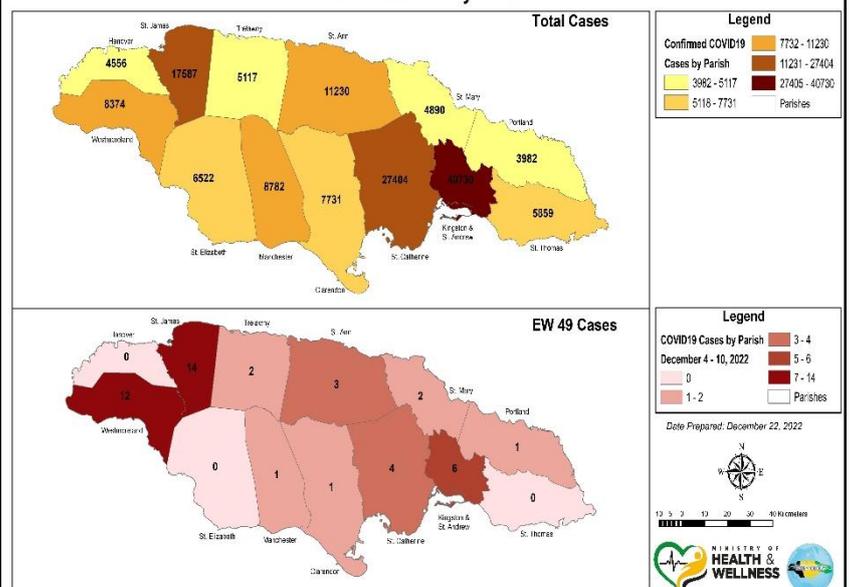
SARS-CoV-2



COVID-19 WHO Global Statistics EW45-EW48

Epi Week	Confirmed Cases	Deaths
46	2,746,939	8533
47	3,010,501	7981
48	3,455,814	10,077
49	3,853,338	10,891
Total (4weeks)	13,066,592	34,482

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

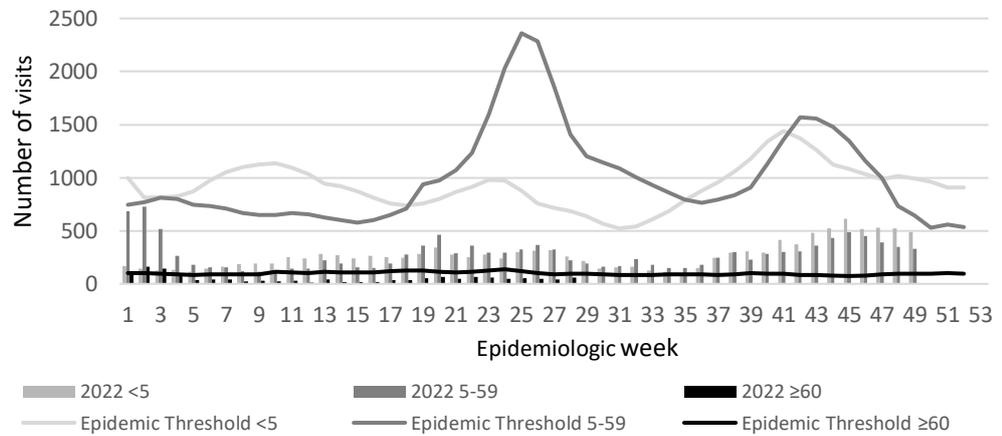
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 49

December 4– December 10, 2022 Epidemiological Week 49

	<i>EW 49</i>	<i>YTD</i>
SARI cases	9	489
Total Influenza positive Samples	0	63
Influenza A	0	63
H3N2	3	54
H1N1pdm09	0	9
Not subtyped	0	0
Influenza B	0	0
Parainfluenza	0	0

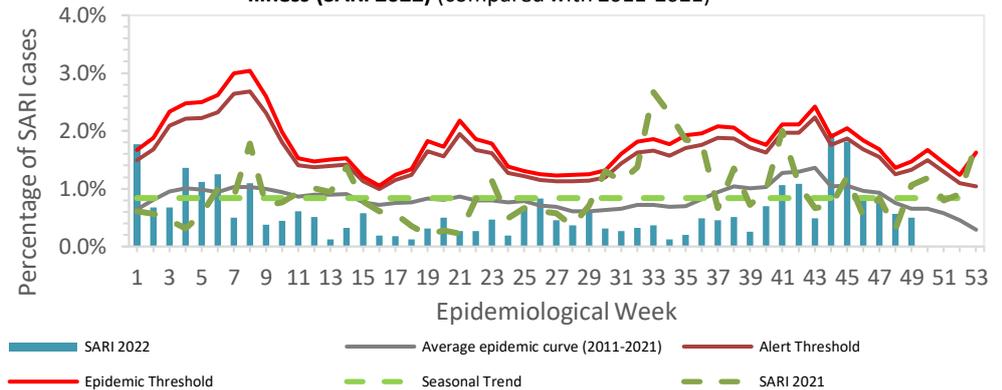
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2022 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 49 nine (9) SARI admissions were reported.

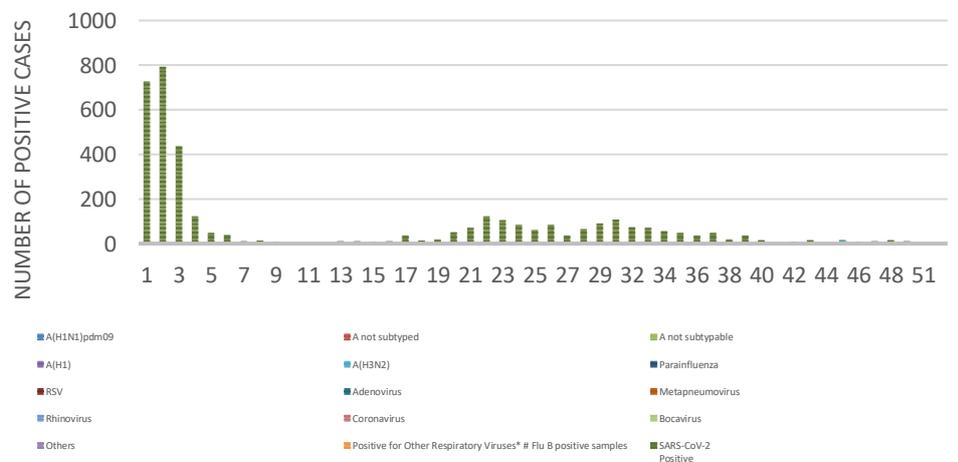
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2022) (compared with 2011-2021)



Caribbean Update EW 49

Caribbean: Influenza activity was low across the subregion with A(H3N2) virus predominance and A(H1N1)pdm09 co-circulation. SARS-CoV-2 activity remained low. The Dominican Republic and Puerto Rico have shown increased influenza activity, at low-intensity levels.

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



7 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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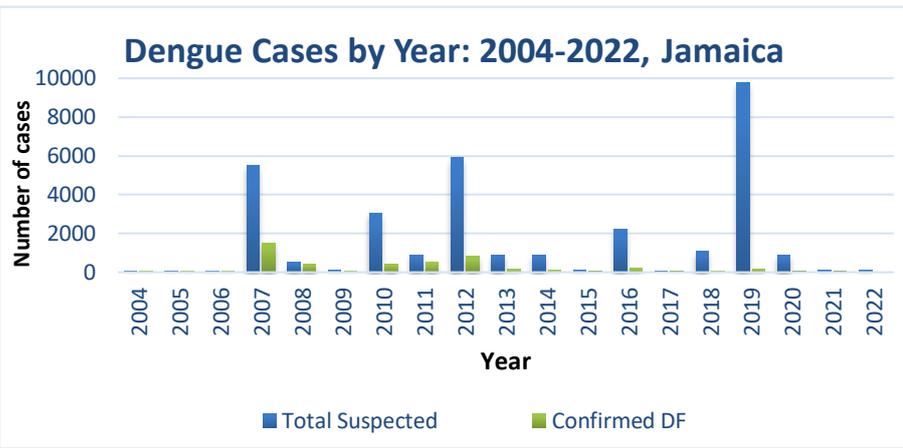


SENTINEL REPORT- 78 sites. Automatic reporting

Dengue Bulletin

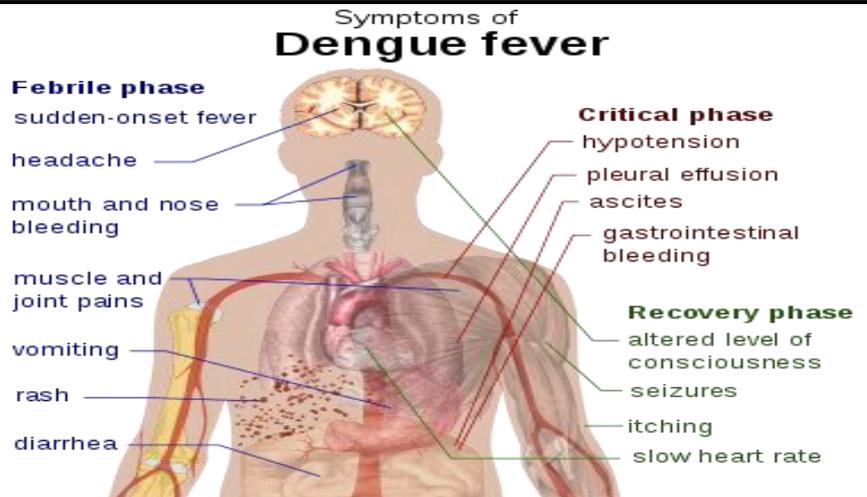
December 4- December 10, 2022 Epidemiological Week 49

Epidemiological Week 49



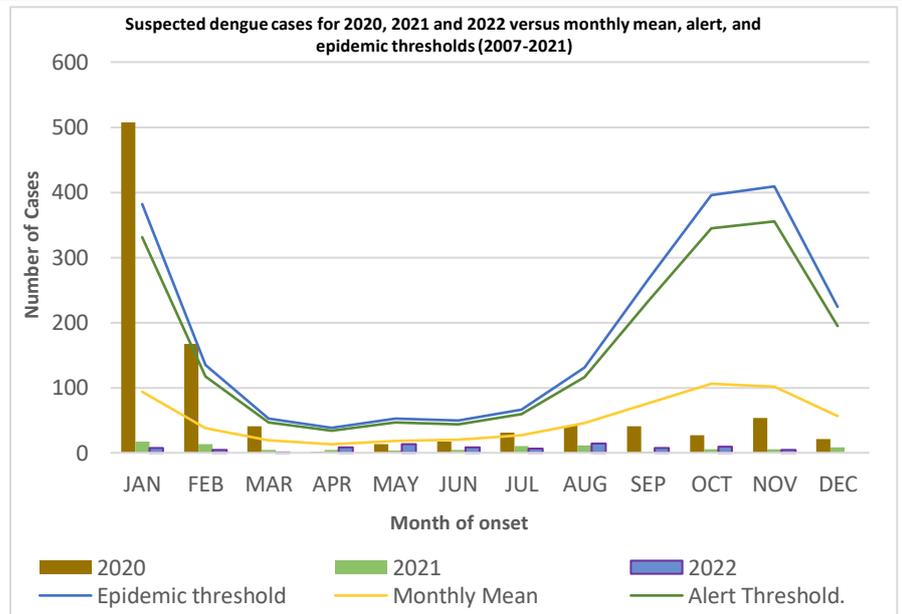
Reported suspected and confirmed dengue with symptom onset in week 49 of 2022

	2022*	
	EW 49	YTD
Total Suspected Dengue Cases	2	98
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at Dec 10, 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



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

Abstract

Knowledge and Practice Related to Lifestyle Among Adults with Diabetes and Hypertension

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Aim: To determine the level of knowledge and assess the lifestyle practices of adult patients with Diabetes and/or Hypertension attending the primary health care clinics in Jamaica.

Background: Diabetes and Hypertension are among the leading causes of preventable morbidity and related disability worldwide. The shift in disease burden from infectious diseases to non-communicable diseases has been attributed to dietary and physical activity changes.

Method: In this cross-sectional study using 150 randomly selected adults from primary health care centres in seven parishes of Jamaica. A 69-item interviewer-administered questionnaire was used. The questions measured knowledge and lifestyle practices related to diet, smoking, exercise and alcohol consumption.

Results: The majority (%) of the sample was female (76%) and most persons were within the age group of 56 years or over (68.6%). The mean knowledge score of exercise was 4.7 (SD 1.2) with a score range of 1 to 6. No statistical differences presented in mean knowledge of exercise by socioeconomic and demographic characteristics. Nine of the ten questions assessing knowledge of diet were answered correctly by the majority (50.7% - 93.3%). The mean knowledge score for alcohol consumption and smoking was 5.5 (SD 0.9) and 2.9 (SD 0.3), respectively. Just over a half (52.3%) of the sample reported exercising (52.3%) and consuming sugar-sweetened beverages (53%). Very little reported drinking alcohol in the last three months (10.7%) and a minority (4.7%) of the sample reported that they are currently smoking.

Conclusion: Mean knowledge scores for exercise, alcohol consumption and smoking were relatively high, while lifestyle practices among participants was relatively low. We recommend further research to assess the facilitators and barriers to adopting lifestyle changes among Jamaican adults.

Keywords: Knowledge, Lifestyle, Practice, Diabetes, Hypertension



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



HOSPITAL
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