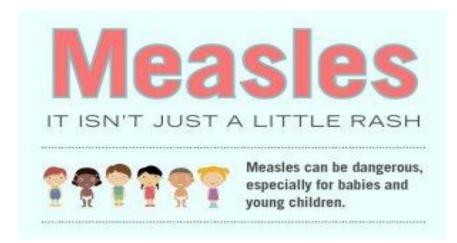
## WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## **Weekly Spotlight**

**Measles Update** 



Measles is a viral disease that can cause severe health problems, such as pneumonia, blindness, and encephalitis. Most measles-related deaths are caused by complications from the disease. Complications are more common in children under 5. The disease is transmitted by droplets expelled and suspended in the air from the nose, mouth, or throat of an infected person. Virus in the air or on any surface continues to be contagious for up to two hours.

Two doses of vaccine are needed for protection against measles (95% of the population will gain immunity with just one dose of the measles vaccine. With a second dose, this percentage rises to 99.9%, the percentage required to maintain good population immunity and elimination). That means more people may get measles if they receive only one dose of the vaccine.

In the first few months of 2018 to date, 11 countries in the Region of the Americas have reported confirmed cases of measles. This includes one Caribbean country. Most cases have been reported from Venezuela which has had ongoing transmission of measles since 2017. Measles outbreaks have also been recorded for 2017 in countries in the European and South-East Asian Health Regions with the number of cases of measles from Europe quadrupled in 2017 when compared to 2016. Adequate vaccination coverage and a robust surveillance system are required for the prevention and control of measles

## EPI WEEK 24



**SYNDROMES** 

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CLASS 1 DISEASES

PAGE 4



**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 –
21 to 24 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

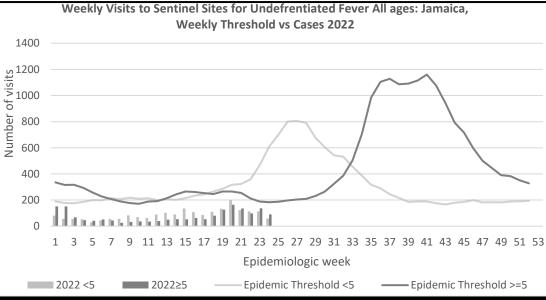
Epi week	Kingston and Saint Andrew	Saint Thomas	Saint Catherine	Portland	Saint Mary	Saint Ann	Trelawny	Saint James	Hanover	Westmoreland	Saint Elizabeth	Manchester	Clarendon
2022													
21	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
22	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time
23	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
24	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  $>38^{\circ}C$  /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



#### FEVER AND NEUROLOGICAL

Temperature of >38°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 40 35 Number of visits 30 25 20 15 10 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 Epidemiologic week 2021 2022 Alert Threshold - Epidemic Threshold

#### **FEVER AND HAEMORRHAGIC**

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



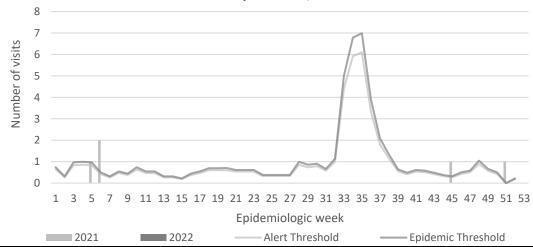
#### FEVER AND JAUNDICE

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



#### Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2021 and 2022 vs Weekly Threshold; Jamaica



Fever and Jaundice cases: Jamaica, Weekly Threshold vs Cases 2021 and 2022 8 6 Number of visits 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 Epidemiologic Week 2021 2022 Alert Threshold **Epidemic Threshold** 





NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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



#### **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.

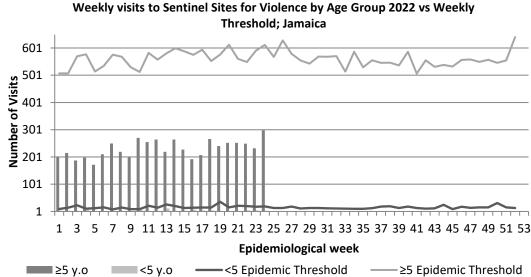


#### **GASTROENTERITIS**

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



#### Weekly Visits to Sentinel Sites for Accident by Age Group 2022 vs. Weekly **Threshold** 1800 1600 1400 **Number of Visits** 1200 1000 800 600 400 200 0 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 Epi Week ≥5 y/o Cases <5 y/o Cases</p> - Epi threshold ≥5 y/o Epi threshold <5 y/o



Weekly visits to Sentinel Sites for Gastroenteritis All ages 2022 vs Weekly Threshold; Jamaica 1400 1200 Number of visits 1000 800 600 400 200 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 Epidemiologic Week 2022 <5 ■ 2022 ≥5 Epidemic Threshold <5 Epidemic Threshold >5



4 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



## **CLASS ONE NOTIFIABLE EVENTS**

### Comments

			Confirm	$^{ m ned}~{ m YTD}^{lpha}$	AFP Field Guides from		
	CLASS 1 EV	/ENTS	CURRENT YEAR 2022	PREVIOUS YEAR 2021	WHO indicate that for an effective		
	Accidental Po	isoning	103β	76 <sup>β</sup>	surveillance system, detection rates for AFP		
IAL	Cholera		0	0	should be 1/100,000		
NATIONAL /INTERNATIONAL INTEREST	Dengue Hemo	orrhagic Fever <sup>7</sup>	See Dengue page below	See Dengue page below	population under 15 years old (6 to 7) cases		
NA7	COVID-19 (S	ARS-CoV-2)	44740	36472	annually.		
L /INTERN INTEREST	Hansen's Dise	ease (Leprosy)	0	0	Pertussis-like		
	Hepatitis B		8	6	syndrome and Tetanus		
NAI 1	Hepatitis C		2	4	are clinically confirmed		
VTIO	HIV/AIDS		NA	NA	classifications.		
Z	Malaria (Imp	orted)	0	0			
	Meningitis (C	linically confirmed)	9	11	<sup>γ</sup> Dengue Hemorrhagic Fever data include		
EXOTIC/ UNUSUAL	Plague		0	0	Dengue related deaths;		
	Meningococc	al Meningitis	0	0	δ Figures include all		
H IGH ORBIDIT ORTALI	Neonatal Teta	nus	0	0	deaths associated with		
H IGH MORBIDITY, MORTALITY	Typhoid Feve	r	0	0	pregnancy reported for the period.		
W W	Meningitis H/	Flu	0	0			
	AFP/Polio		0	0	<sup>ε</sup> CHIKV IgM positive		
	Congenital Ru	ıbella Syndrome	0	0	cases θ Zilaa DCD magidian		
70	Congenital Sy	philis	0	0	<sup>θ</sup> Zika PCR positive cases		
AMES	Fever and Rash	Measles	0	0	<sup>β</sup> Updates made to		
RAM		Rubella	0	0	prior weeks in 2020.		
SPECIAL PROGRAN	Maternal Dear	ths <sup>δ</sup>	29	28	<sup>α</sup> Figures are cumulative totals for		
L PR	Ophthalmia N	eonatorum	48	40	all epidemiological		
CIA	Pertussis-like	syndrome	0	0	weeks year to date.		
${ m SPE}$	Rheumatic Fe	ver	0	0			
	Tetanus		0	0			
	Tuberculosis		13	19			
	Yellow Fever		0	0			
Chikungunya <sup>e</sup>			0	0			
	Zika Virus <sup>θ</sup>		0	0	NA- Not Available		





INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- $30\ sites.$  Actively pursued

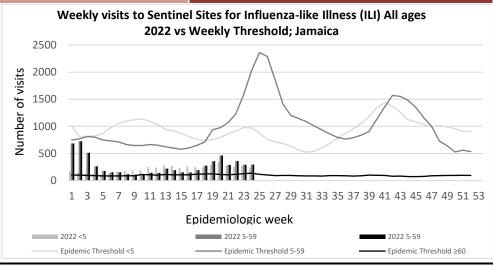


# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 24

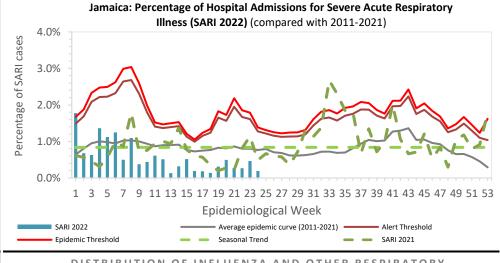
June 12 – June 18, 2022 Epidemiological Week 24

	EW 24	YTD
SARI cases	3	214
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



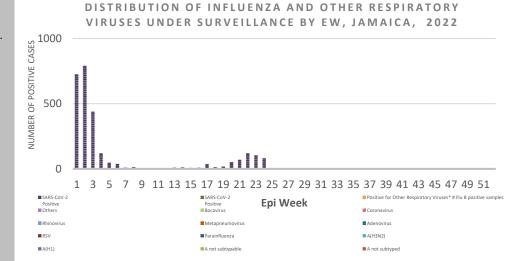
#### **Epi Week Summary**

During EW 24, three (3) SARI admissions were reported.



#### Caribbean Update EW 24

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.





6 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



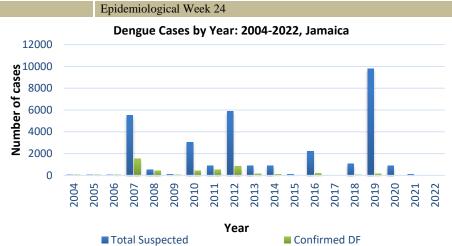
HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



## Dengue Bulletin

Jun 12 – June 18, 2022 Epidemiological Week 24





# Reported suspected and confirmed dengue with symptom onset in week 24 of 2022

	2022*			
	EW 24	YTD		
Total Suspected Dengue Cases	0	31		
Lab Confirmed Dengue cases	0	0		
CONFIRMED Dengue Related Deaths	0	0		

#### Symptoms of Dengue fever Febrile phase sudden-onset feve Critical phase hypotension headache pleural effusion ascites mouth and nose bleeding gastrointestinal bleeding muscle and joint pains Recovery phase altered level of vomiting consciousness seizures rash itchina diarrhea slow heart rate

#### **Points to note:**

- \*Figure as at June 11, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

#### 500 **Number of Cases** 400 300 200 100 0 MAY JUN JAN FEB MAR APR JUL AUG SEP OCT NOV DEC

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

600



- Epidemic threshold

2020

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



Month of onset

Monthly Mean

2021

SENTINEL REPORT- 78 sites. Automatic reporting

Alert Threshold.

2022

## **RESEARCH PAPER**

#### **HIV Case-Based Surveillance System Audit** S. Whitbourne, Z. Miller

**Objectives**: Evaluate the Public Health Surveillance System for HIV reporting, to help ensure that the data collected is accurate and useful for understanding epidemiological trends.

**Background:** Public health programmes focus on the monitoring, control and reduction in the incidence of target diseases, conditions or health events through various interventions and actions. The surveillance system is the primary mechanism through which specific disease information is collected and needs to be periodically assessed.

Methodology: In 2016, an audit was conducted of the HIV Case-Based Surveillance System in Jamaica. Laboratory records were reviewed from seven major health care facilities representing all four Regional Health Authorities. Cases with a positive HIV test in 2014 were noted and comparisons of positive cases were made with the cases that had been reported to the National Surveillance Unit. Qualitative data was also collected from key personnel in the form of questionnaires related to the processes involved in diagnosis, detection, investigation and reporting of HIV positive cases, but this paper will focus on the quantitative findings.

Findings: Preliminary data analysis reveals a high level of underreporting of HIV cases to the national level.

Conclusions: Audits and other forms of assessment need to be conducted on surveillance systems to ensure that the data supporting a public health programme is reliable and accurate, for effective delivery of services to target populations.



The Ministry of Health and Wellness 24-26 Grenada Crescent Kingston 5, Jamaica Tele: (876) 633-7924

Email: surveillance@moh.gov.jm

All clinical

sites







pursued

