

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Newborns: Improving Survival and Well-being

Neonates



Globally 2.4 million children died in the first month of life in 2019. There are approximately 6700 newborn deaths every day, amounting to 47% of all child deaths under the age of 5-years, up from 40% in 1990.

The majority of all neonatal deaths (75%) occurs during the first week of life, and about 1 million newborns die within the first 24 hours. Preterm birth, intrapartum-related complications (birth asphyxia or lack of breathing at birth), infections and birth defects cause most neonatal deaths in 2017. From the end of the neonatal period and through the first 5 years of life, the main causes of death are pneumonia, diarrhoea, birth defects and malaria. Malnutrition is the underlying contributing factor, making children more vulnerable to severe diseases.

Essential newborn care

All babies should receive the following:

- thermal protection (e.g. promoting skin-to-skin contact between mother and infant);
- hygienic umbilical cord and skin care;
- early and exclusive breastfeeding;
- assessment for signs of serious health problems or need of additional care (e.g. those that are low-birth-weight, sick or have an HIV-infected mother
- preventive treatment (e.g. immunization BCG and Hepatitis B, vitamin k and ocular prophylaxis)

Families should be advised to:

- seek prompt medical care if necessary (danger signs include feeding problems, or if the newborn has reduced activity, difficult breathing, a fever, fits or convulsions, jaundice in first 24 hours after birth, yellow palms and soles at any age, or if the baby feels cold);
- register the birth;
- bring the baby for timely vaccination according to national schedules.

Some newborns require additional attention and care during hospitalization and at home to minimize their health risks.

<https://www.who.int/news-room/fact-sheets/detail/newborns-reducing-mortality>

EPI WEEK 9



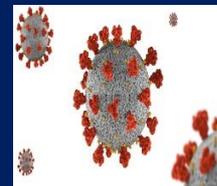
- Syndromic Surveillance
- Accidents
- Violence

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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 - 6 to 9 of 2023

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
	2023												
6	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
7	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
8	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
9	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

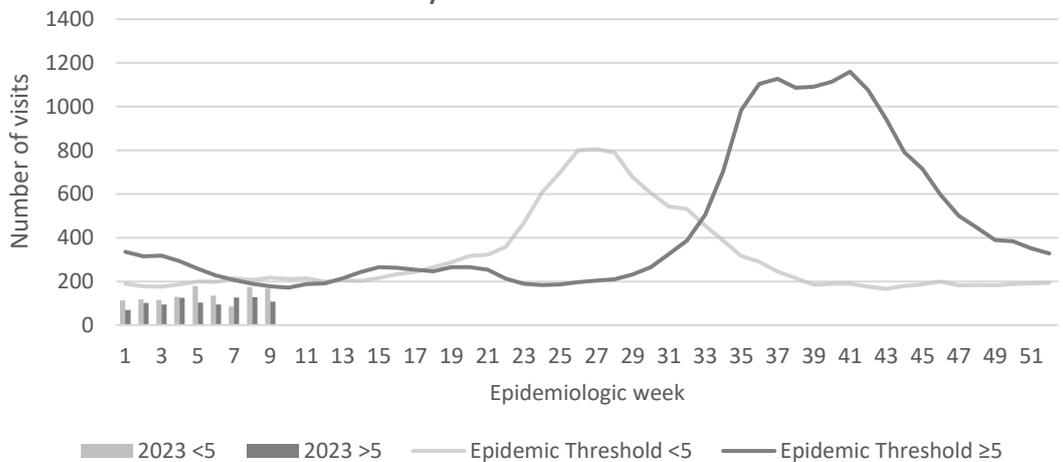
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of >38°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica, Weekly Threshold vs Cases 2023



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



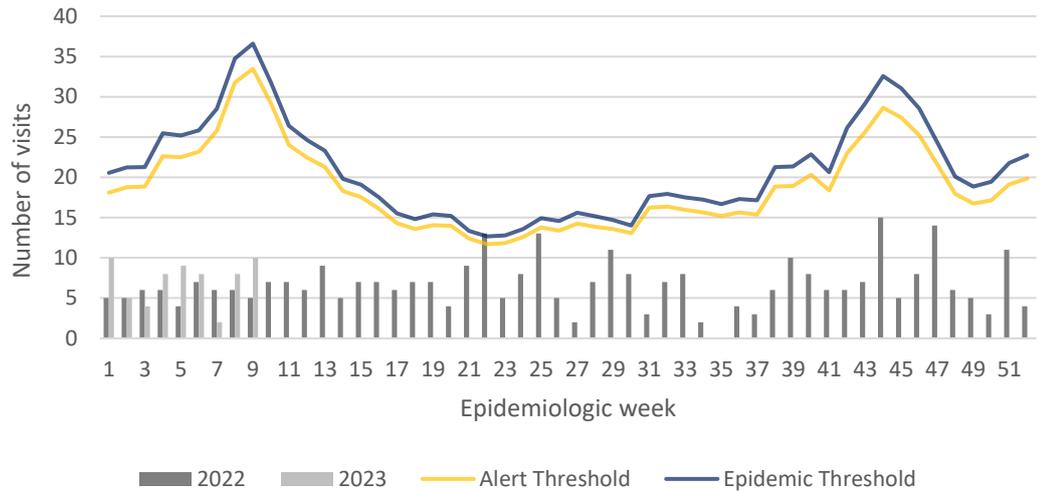
SENTINEL REPORT- 78 sites. Automatic reporting

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 2022 and 2023 vs. Weekly Threshold: Jamaica

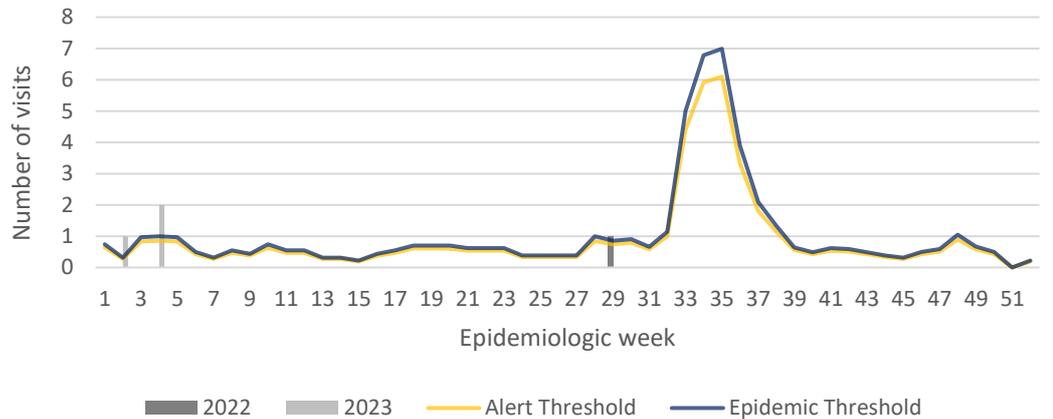


FEVER AND HAEMORRHAGIC

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 2022 and 2023 vs Weekly Threshold; Jamaica



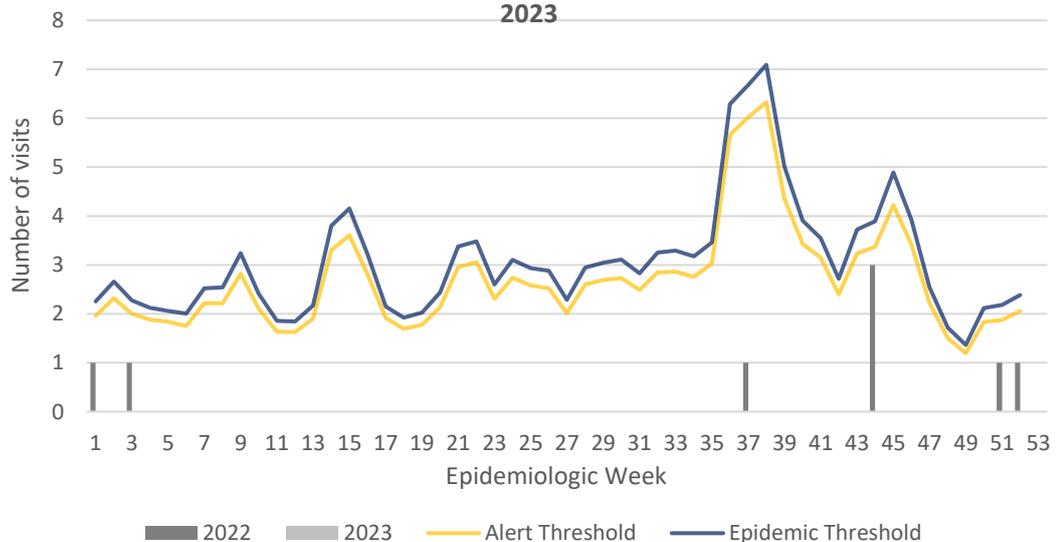
FEVER AND JAUNDICE

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 2022 and 2023



3 NOTIFICATIONS-
All clinical sites



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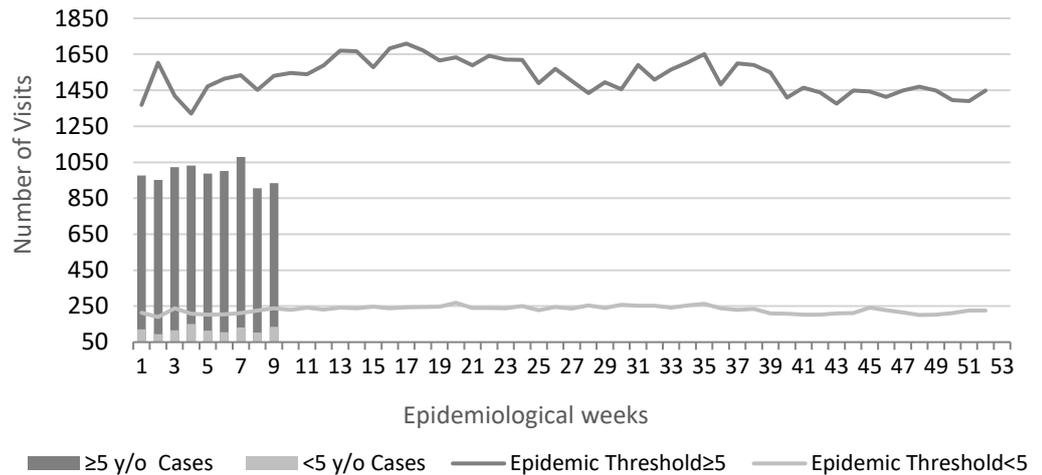


ACCIDENTS

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 2023 vs Weekly Threshold; Jamaica

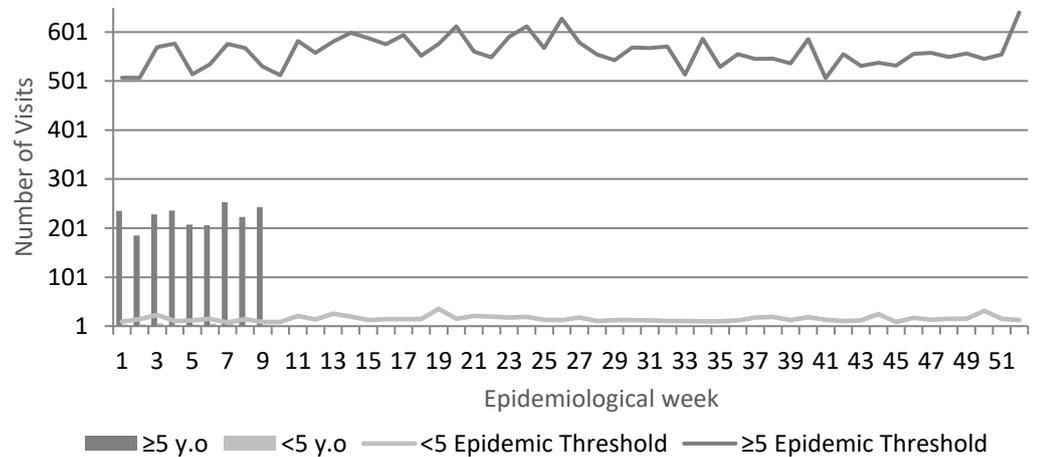


VIOLENCE

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 2023 vs Weekly Threshold; Jamaica

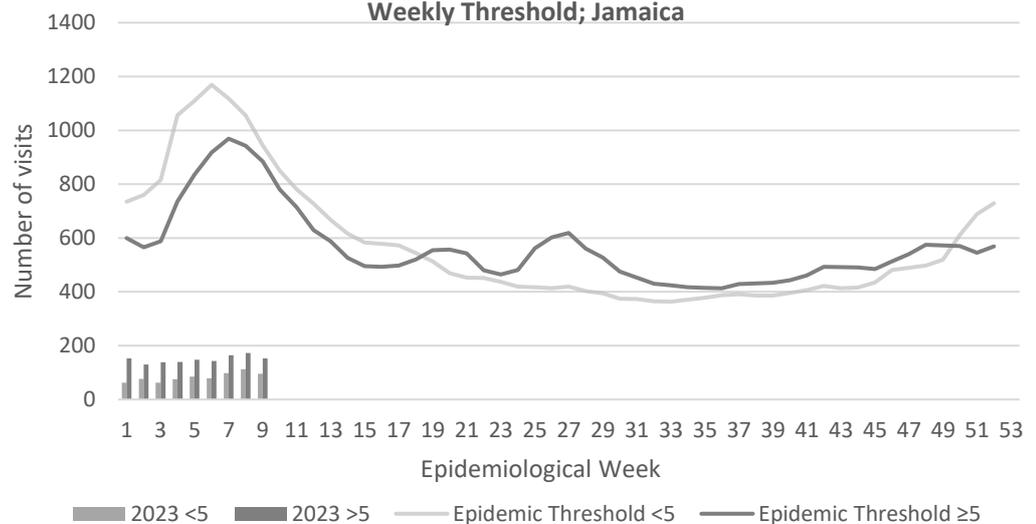


GASTROENTERITIS

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 2023 vs Weekly Threshold; Jamaica



4 NOTIFICATIONS-
All clinical sites



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CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2023	PREVIOUS YEAR 2022		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	45 ^β	43 ^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)	1533	31110		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	1	0		
	Hepatitis C	0	0		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	6	6		
	Monkeypox	0	N/A		
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	6	12		
	Ophthalmia Neonatorum	20	12		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	0	2		
Yellow Fever	0	0			
Chikungunya ^ε	0	0			
Zika Virus ^θ	0	0	NA- Not Available		



5 NOTIFICATIONS-
All clinical sites



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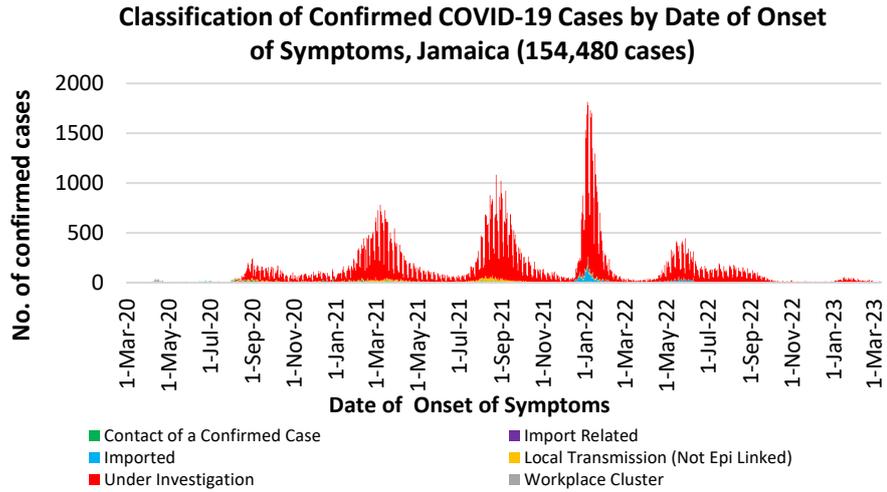
SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

March 10, 2020 – EW 9, 2023

CASES	EW 9	Total
Confirmed	108	154480
Females	58	89117
Males	50	65360
Age Range	2 days old to 95 years	1 day to 108 years

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

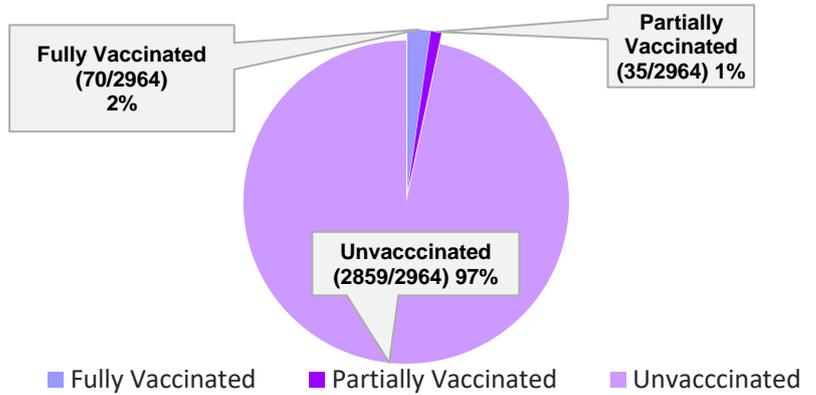


COVID-19 Outcomes

Outcomes	EW 9	Total
ACTIVE *past 2 weeks*		225
DIED – COVID Related	1	3524
Died - NON COVID	1	300
Died - Under Investigation	1	349
Recovered and discharged	28	102555
Repatriated	0	93
Total		154480

*Vaccination programme March 2021 – YTD

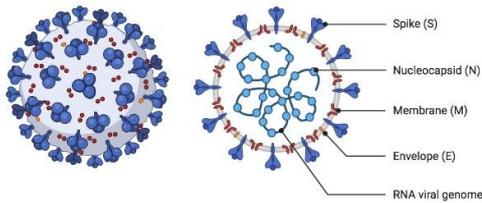
2964 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

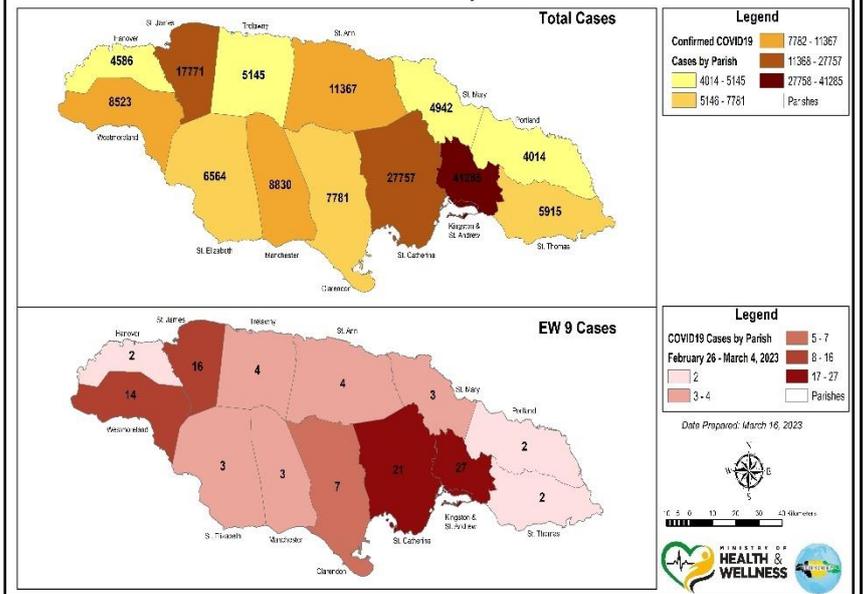
SARS-CoV-2



COVID-19 WHO Global Statistics EW6-EW9

Epi Week	Confirmed Cases	Deaths
6	1,165,099	8,148
7	1,074,468	7,906
8	999,848	6021
9	118,891	534
Total (4weeks)	3,358,306	22,609

COVID19 Cases by Parish



6 NOTIFICATIONS- All clinical sites



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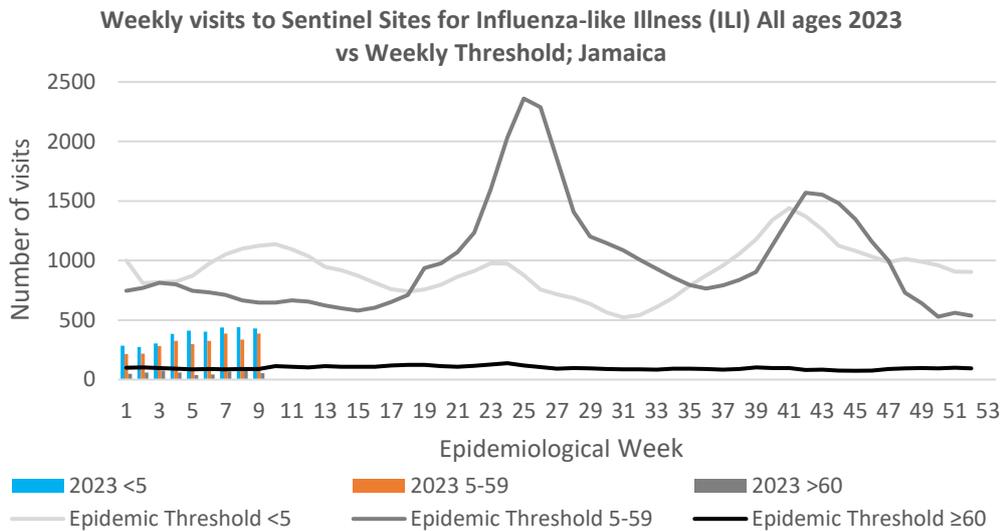


NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 9

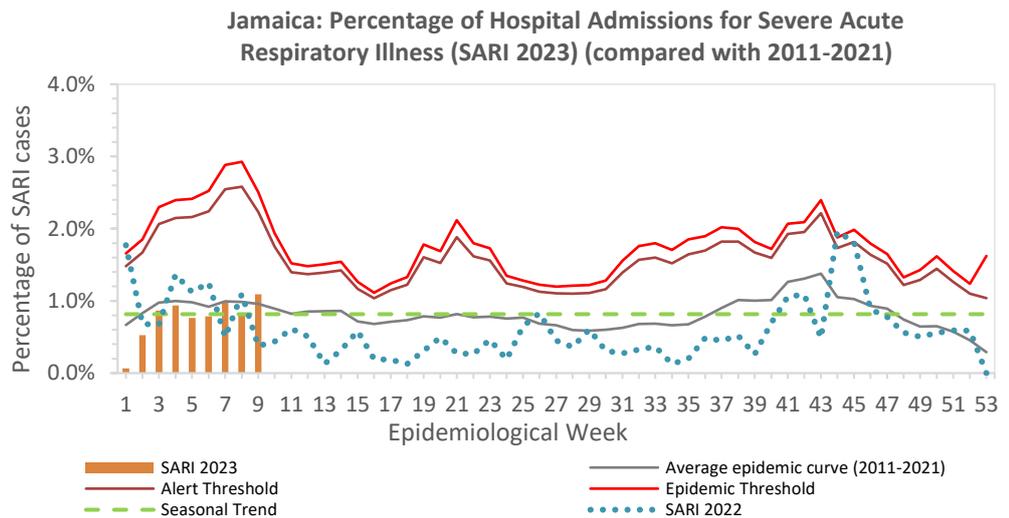
February 26 – March 4, 2023 Epidemiological Week 9

	<i>EW 9</i>	<i>YTD</i>
SARI cases	<i>13</i>	<i>108</i>
Total Influenza positive Samples	<i>0</i>	<i>16</i>
Influenza A	<i>0</i>	<i>11</i>
H3N2	<i>0</i>	<i>1</i>
H1N1pdm09	<i>0</i>	<i>9</i>
Not subtyped	<i>0</i>	<i>1</i>
Influenza B	<i>0</i>	<i>5</i>
Parainfluenza	<i>0</i>	<i>1</i>
RSV	<i>10</i>	<i>13</i>



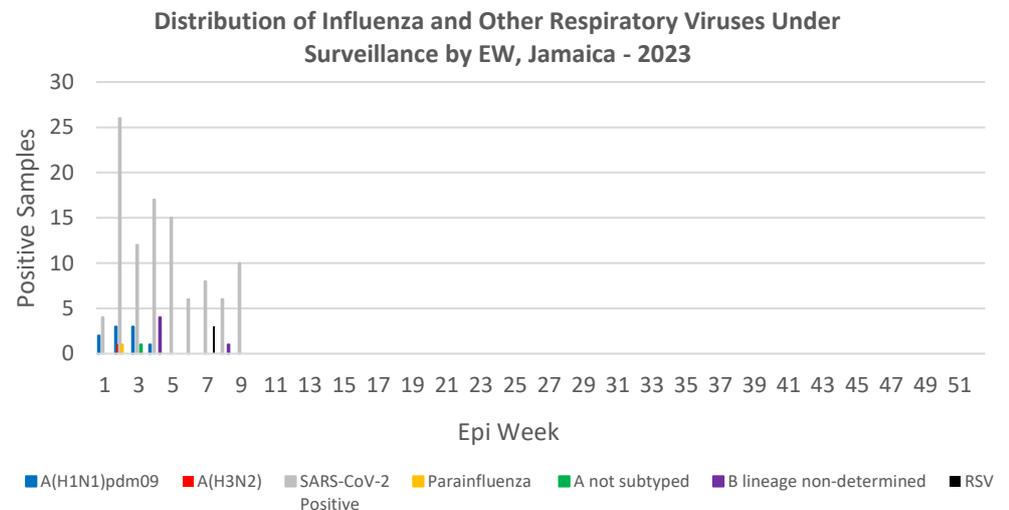
Epi Week Summary

During EW 9 thirteen (13) SARI admissions were reported.



Caribbean Update EW 9

Caribbean: Influenza activity remains elevated in the subregion, although presenting a decreasing trend, with A(H1N1)pdm09 predominance and A(H3N2) and B/Victoria co-circulation. Belize and Haiti reported increased influenza activity, and all seasonal subtypes co-circulated. SARS-CoV-2 activity was low in the subregion, except in Dominica and Suriname, where it was raised. RSV activity remained low in the subregion, except in Jamaica where increased RSV activity was reported



7 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

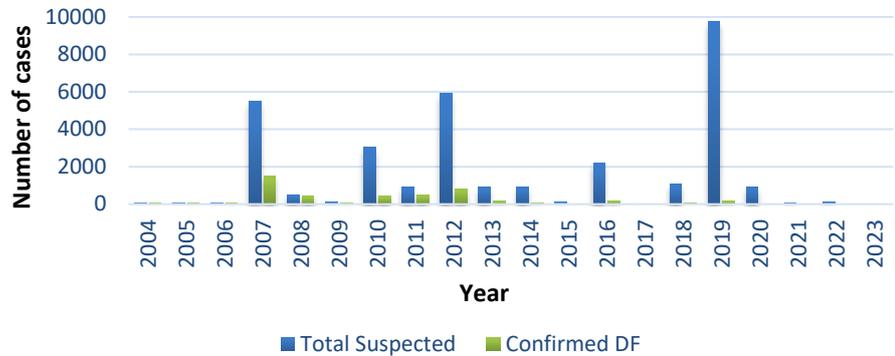
Dengue Bulletin

February 26- March 4, 2023 Epidemiological Week 9

Epidemiological Week 9



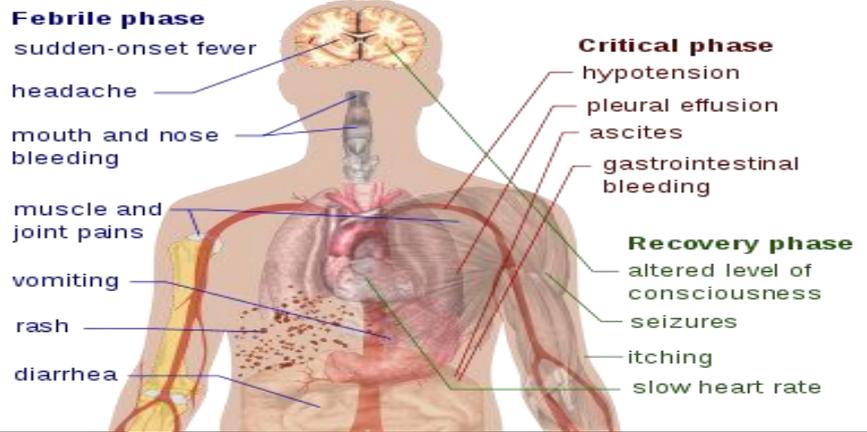
Dengue Cases by Year: 2004-2023, Jamaica



Reported suspected and confirmed dengue with symptom onset in week 9 of 2023

	2023*	
	EW 9	YTD
 Total Suspected Dengue Cases	0	16
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0

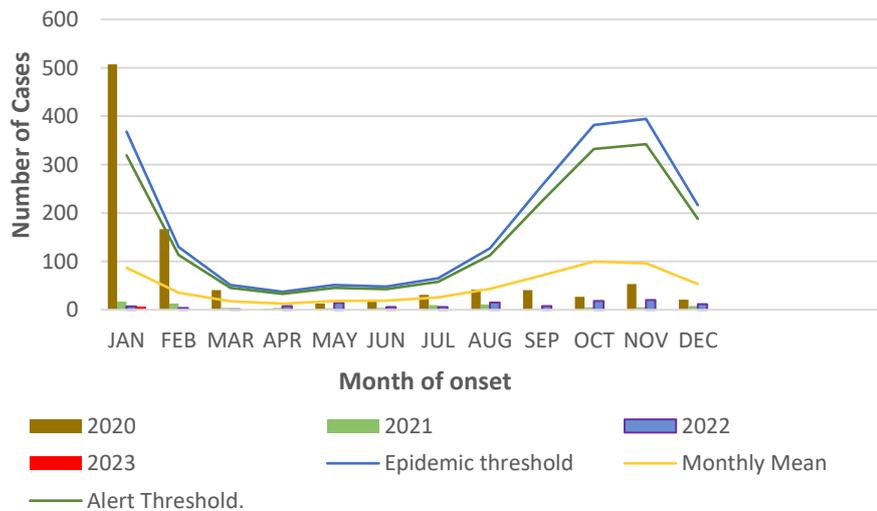
Symptoms of **Dengue fever**



Points to note:

- *Figure as at March 4, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2020, 2021, 2022 and 2023 versus monthly mean, alert, and epidemic thresholds (2007-2022)



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

Barriers to Adherence of Nurses and Patient Care Assistants to Hand Hygiene Practices and Equipment Decontamination Policy at an Urban Hospital in Jamaica

Feron Brown Hamilton¹, Antoinette Barton-Gooden²

Aim: To determine the barriers to adherence of Nurses and Patient Care Assistants to hand hygiene practices and Equipment Decontamination Policy.

Methods: Cross-sectional study design was utilized among 109 Registered Nurses and 26 Patient Care Assistants (PCAs) who were conveniently sampled from the Medical and Surgical Departments. A 54 item self-administered Behaviours and Levers to hand hygiene instrument and the Infection Control Policy Audit Tool. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20. Descriptive statistics included ANOVA and chi-squared test.

Results: Response rate was 68% with nurses (109/135) and PCAs (26/37). Most of the respondents were female (97%), age range 20-30 years (54.4%) and had 0-4 years' experience (63%). Self-reported adherence to appropriate hand hygiene practices were high: 84% reported 81-100% adherence. Barriers identified were: Social influences (\bar{x} 3.24, ± 1.67), knowledge of decontamination of equipment policy (\bar{x} 4.18, ± 2.01), environment context and resources (\bar{x} 4.64 ± 1.48) and action planning (\bar{x} 4.96 ± 1.59). There were no statistical significant relationship between socio-demographic characteristics: age (χ^2 4.684; $p > .05$); job title (χ^2 1.709; $p > .05$); years of service (χ^2 1.237, $p > .05$); unit assigned (χ^2 4.684; $p > 0.05$) and adherence. While participants who were 31 years and older were more knowledge of equipment decontamination policy (\bar{x} 5.71 ± 2.01 ; $p < 0.05$). PCAs had greater knowledge of the equipment decontamination policy (\bar{x} 5.41, ± 1.75 ; $p < 0.05$) when compared to Enrolled Assistant Nurses (\bar{x} 4.09 ± 1.90) and Registered Nurses (\bar{x} 3.85 ± 1.58).

Conclusion: Nurse and PCAs reported high hand hygiene adherence. Barriers were knowledge of the equipment decontamination policy, environment context and resources.

Key words: *Nurses, Patient Care Assistants, Hand Hygiene and Decontamination Policy*



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
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30 sites. Actively
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