

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## EPI WEEK 12

### Biological Weapons: Series 6 of 10: Cholera

**Overview:** Cholera is an acute diarrhoeal infection caused by eating or drinking food or water that is contaminated with the bacterium *Vibrio cholerae*. Cholera remains a global threat to public health and is an indicator of inequity and lack of social development. Researchers have estimated that every year, there are 1.3 to 4.0 million cases of cholera, and 21 000 to 143 000 deaths worldwide due to the infection. Cholera is an extremely serious disease that can cause severe acute watery diarrhoea with severe dehydration. It takes between 12 hours and 5 days for a person to show symptoms after consuming contaminated food or water. Cholera affects both children and adults and can kill within hours if untreated. Most people infected with *Vibrio cholerae* do not develop any symptoms, although the bacteria are present in their faeces for 1-10 days after infection. This means the bacteria are shed back into the environment, potentially infecting other people. Cholera is often predictable and preventable. It can ultimately be eliminated where access to clean water and sanitation facilities, as well as good hygiene practices, are ensured and sustained for the whole population.

**Prevention and Control:** Measures for the prevention of cholera mostly consist of providing clean water and proper sanitation to populations who do not yet have access to basic services, as well as vaccination with Oral Cholera Vaccines. Health education and good food hygiene are also essential. Communities should be reminded of basic hygienic behaviours. These include the need to always wash hands with soap after defecation and before handling food or eating, as well as safe preparation and conservation of food. Strengthening surveillance and early warning systems are important measures to allow detection of the first cases in an outbreak and to put in place control measures as quickly as possible. Preventing and controlling cholera requires interventions beyond the health sector and it is vital to engage with partners across other sectors. The development and implementation of multi-sectoral cholera control plans is a useful mechanism to bring together all relevant sectors, and forge lines of communication and coordination that are valuable beyond cholera control.

**Vaccines:** Since the creation of the global stockpile in 2013, more than 50 million doses of Oral cholera vaccines (OCV) have been successfully used in various settings through mass campaigns. OCV is a tool that is used in addition to classic cholera control measures. It should be systematically considered in both endemic cholera hotspots as well as during outbreaks and emergencies. OCV are safe and effective and are just one tool in a much larger toolbox that includes sustainable safe water, sanitation, and hygiene (WASH), but serve as a critical bridge to these longer-term efforts.

**STOP CHOLERA**  
WITH SAFE WATER, SAFE FOOD & GOOD HYGIENE PRACTICES

**CHOLERA is a water-borne disease, spread by contaminated food or water.**

Cholera causes acute watery diarrhoea (watery stool), and if left untreated, it can lead to **DEATH** within hours.

**Other Symptom Include: Vomiting.**

**HOW TO PREVENT CHOLERA**

**Make Water Safe**

- Use water from reliable sources.
- Boil water before drinking.
- Store water in properly sealed containers.
- Ensure bottled water is properly sealed before you drink.

**Safe Food Preparation**  
**WASH IT, PEEL IT OR COOK IT.**

- Wash fruits and vegetables with clean, running water.
- Peel fruits before consuming.
- Cook food well, and cover properly when not immediately consumed.

**Wash Your Hands**

- Wash your hands frequently with soap and clean, running water.
- Wash before and after eating. Wash before and after using the toilet.
- Use ash if soap and water are not available.

**Practice Environmental Hygiene**

- **STOP** open defecation.
- **STOP** indiscriminate refuse dumping.
- Ensure proper disposal of waste and proper clearing of sewage.



SYNDROMES

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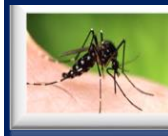
CLASS 1 DISEASES

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INFLUENZA

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DENGUE FEVER

PAGE 6



GASTROENTERITIS

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RESEARCH PAPER

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SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica



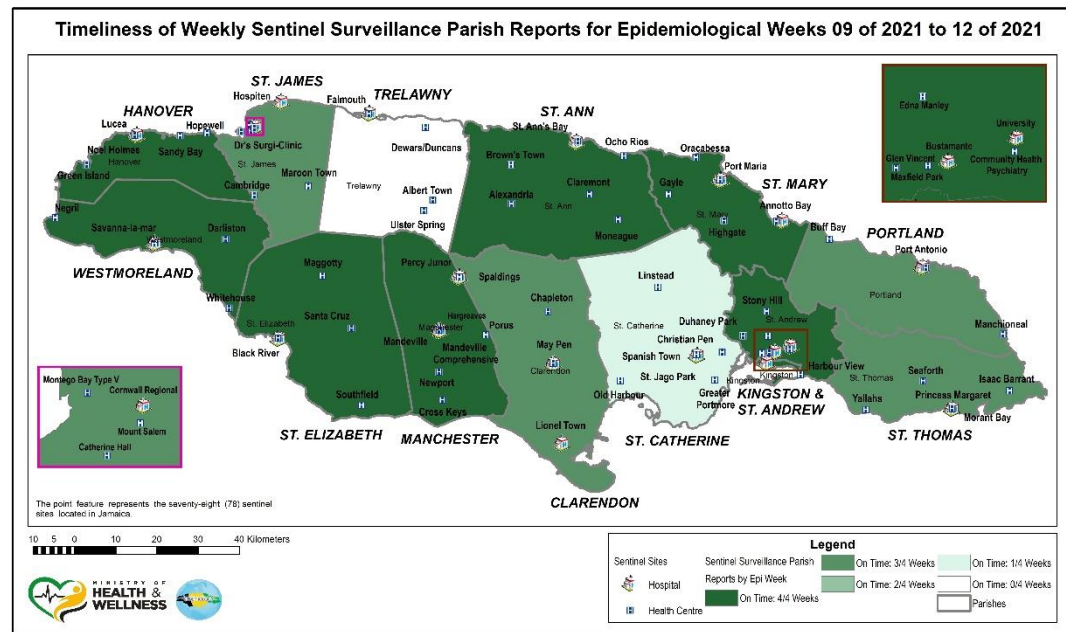
A syndromic surveillance system is good for early detection of and response to public health events.

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.

Map representing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks - 09 2021 to 12 of 2021

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



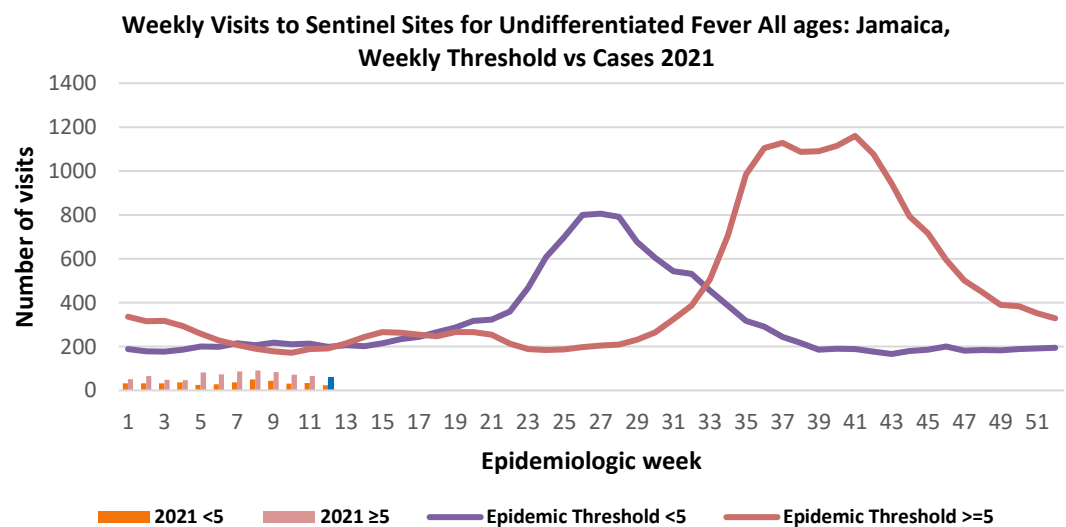
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**KEY**  
VARIATIONS OF BLUE SHOW CURRENT WEEK



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



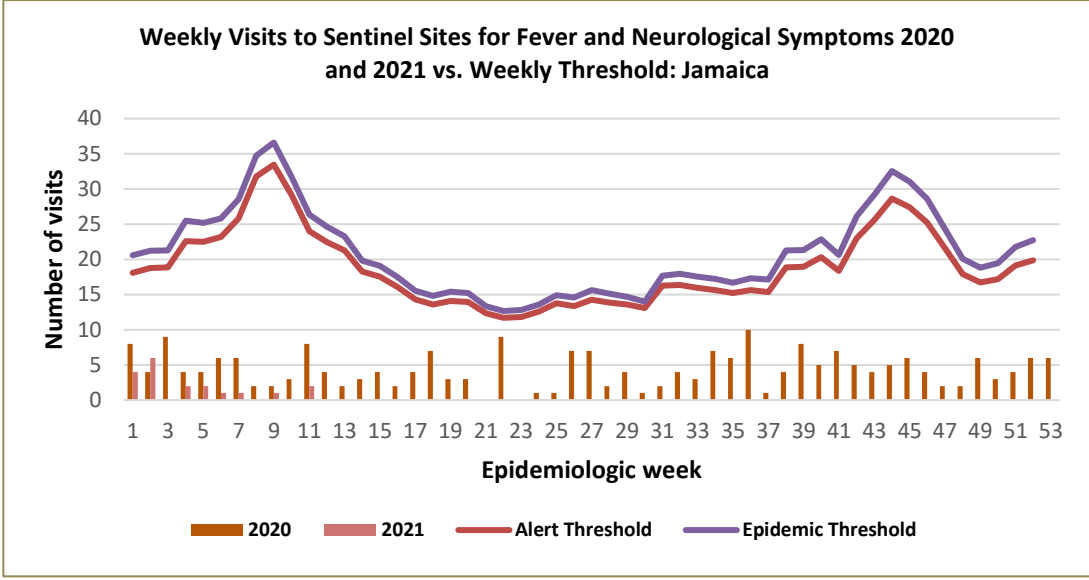
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

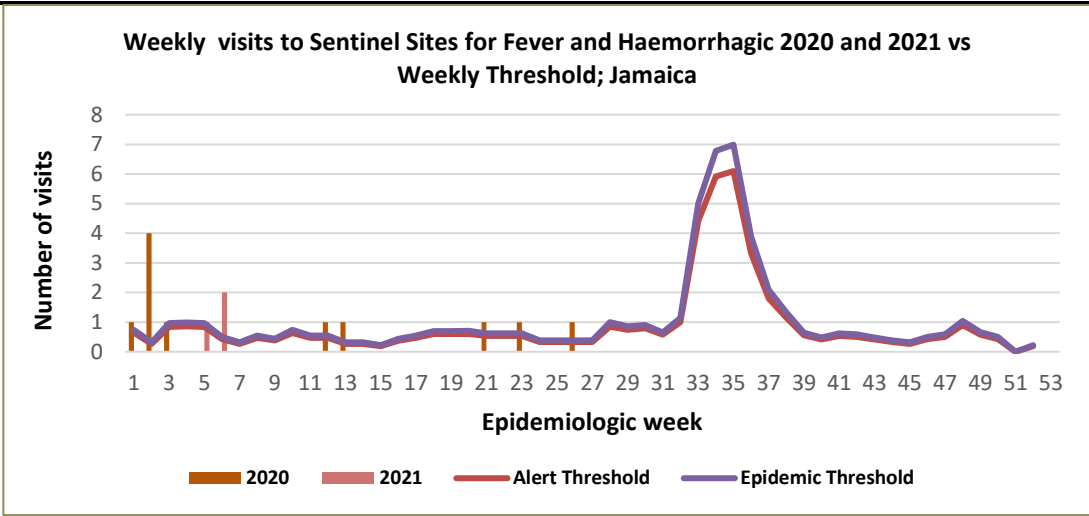
**FEVER AND NEUROLOGICAL**

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

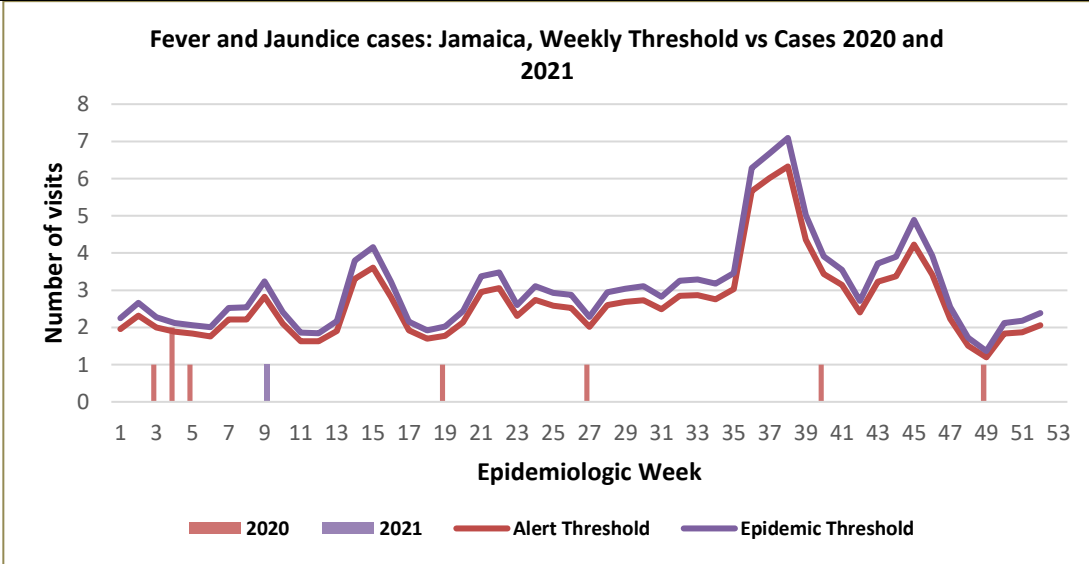
Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



**FEVER AND JAUNDICE**

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



**3 NOTIFICATIONS-**  
All clinical sites



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



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



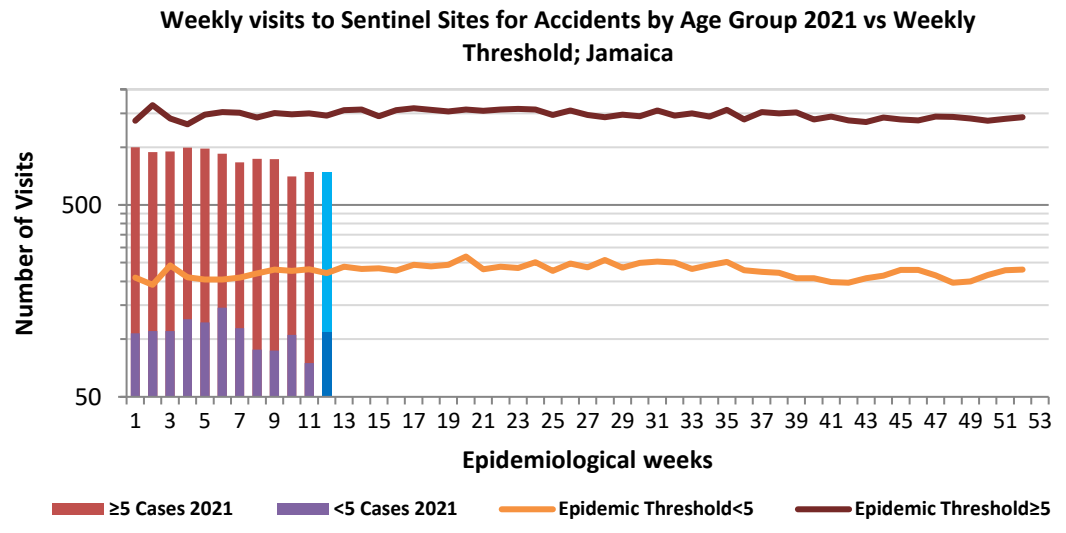
**SENTINEL REPORT-** 78 sites. Automatic reporting

**ACCIDENTS**

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

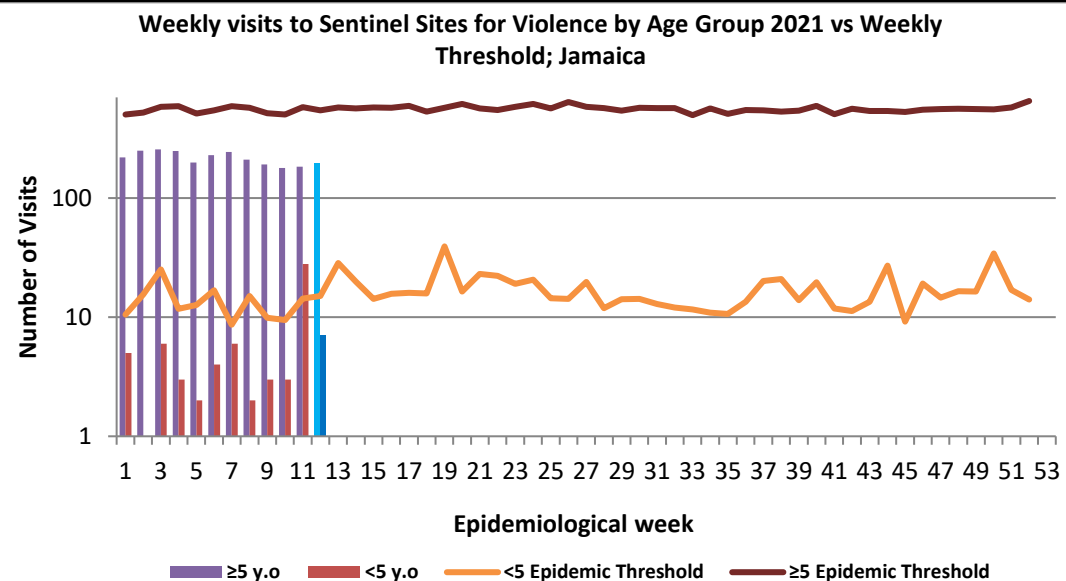
**KEY**

VARIATIONS OF **BLUE** SHOW CURRENT WEEK



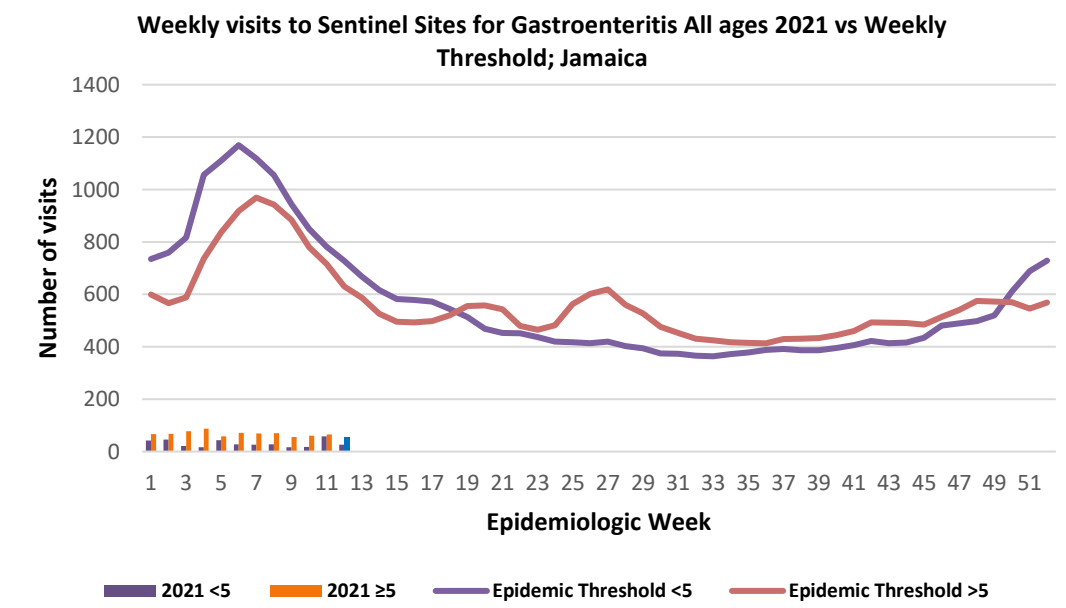
**VIOLENCE**

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



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



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

- CLASS ONE NOTIFIABLE EVENTS		Comments		
	CLASS 1 EVENTS	Confirmed YTD <sup>α</sup>		
		CURRENT YEAR 2021	PREVIOUS YEAR 2020	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	0 <sup>β</sup>	37	
	Cholera	0	0	
	Dengue Hemorrhagic Fever <sup>γ</sup>	See Dengue page below	See Dengue page below	
	Hansen's Disease (Leprosy)	0	0	
	Hepatitis B	0	0	
	Hepatitis C	0	0	
	HIV/AIDS	NA	NA	
	Malaria (Imported)	0	0	
	Meningitis (Clinically confirmed)	0	1	
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 <sup>δ</sup>	3	12	
	Ophthalmia Neonatorum	0	38	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	0	
Tuberculosis	0	9		
Yellow Fever	0	0		
	Chikungunya <sup>ε</sup>	0	0	
	Zika Virus <sup>θ</sup>	0	0	

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.

<sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;

<sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.

<sup>ε</sup> CHIKV IgM positive cases

<sup>θ</sup> Zika PCR positive cases

<sup>β</sup> Updates made to prior weeks in 2020.

<sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.

NA- Not Available



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

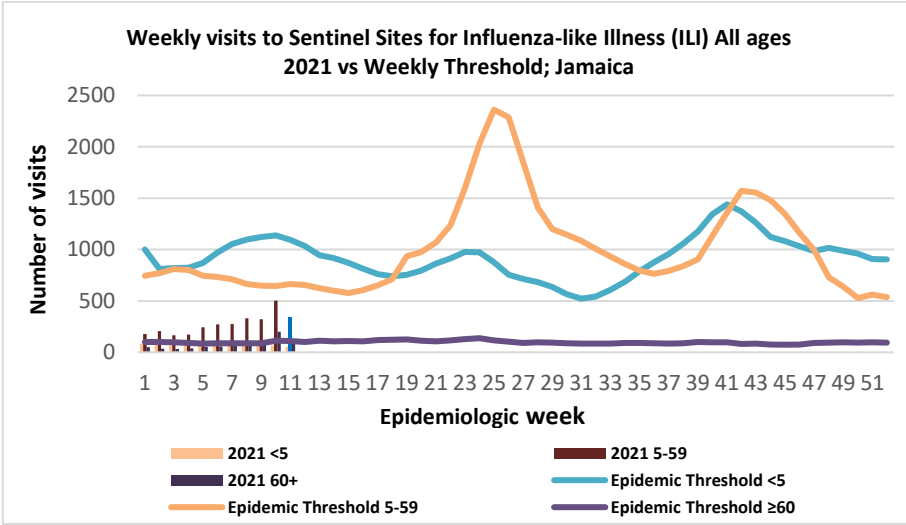


# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 12

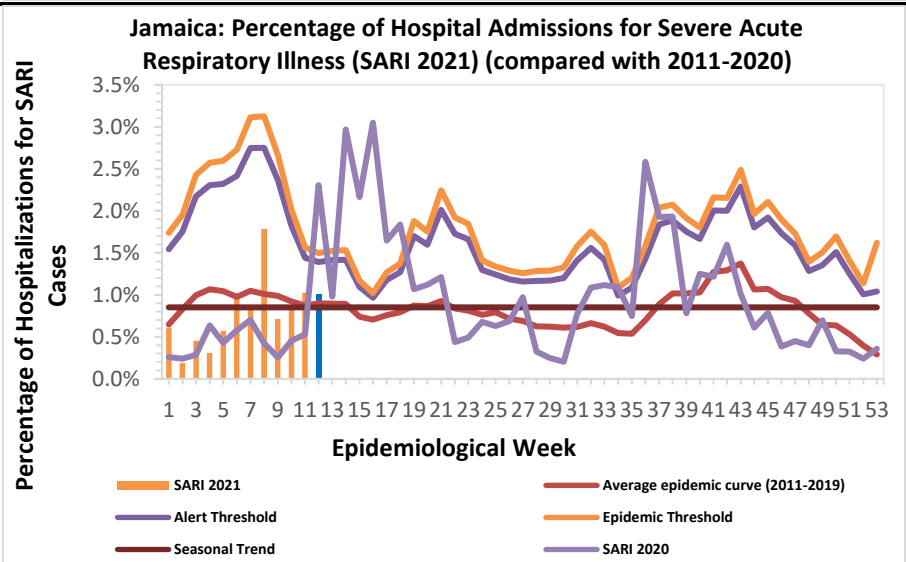
March 21, 2021 – March 27, 2021 Epidemiological Week 12

	EW 12	YTD
SARI cases	14	144
<b>Total Influenza positive Samples</b>	0	0
<b>Influenza A</b>	0	0
H3N2	0	0
H1N1pdm09	0	0
Not subtyped	0	0
<b>Influenza B</b>	0	0
<b>Parainfluenza</b>	0	0



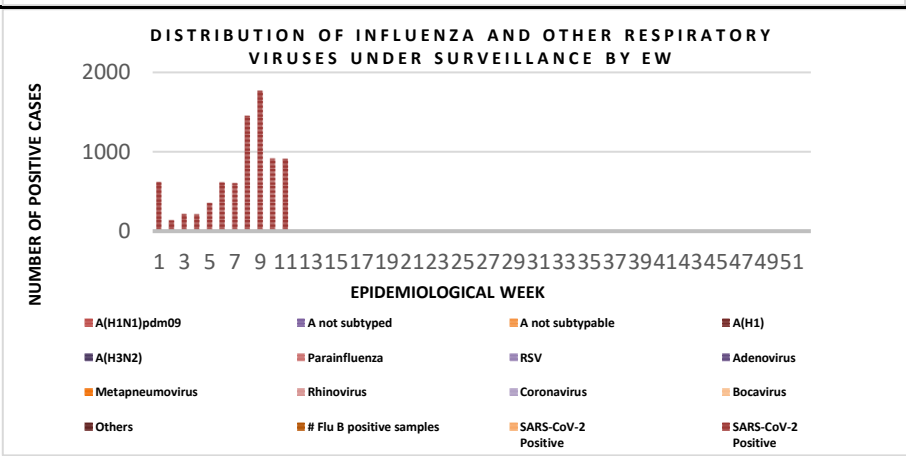
**Epi Week Summary**

During EW 12, 14 (fourteen) SARI admissions were reported.



**Caribbean Update EW 12**

**Caribbean:** Influenza and other respiratory virus activity remained low. In Jamaica, the SARS-CoV-2 activity continued high, and in Haiti, SARS-CoV-2 activity continued at moderate levels- with a slight increase in recent weeks.



**6 NOTIFICATIONS-**  
All clinical sites



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



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

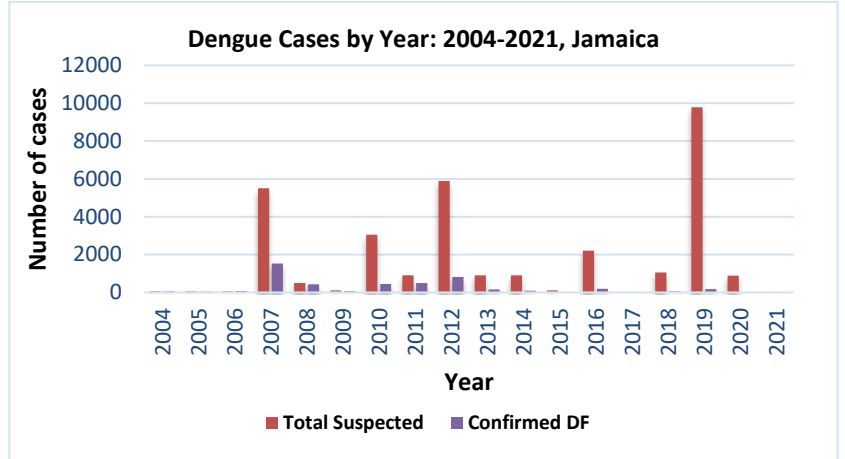


**SENTINEL REPORT-** 78 sites. Automatic reporting

# Dengue Bulletin

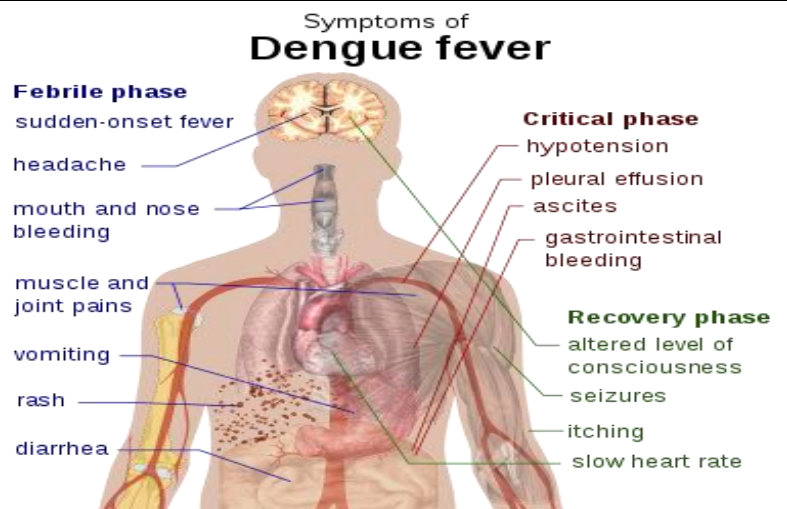
March 21, 2020 – March 27, 2021 Epidemiological Week 12

Epidemiological Week 12



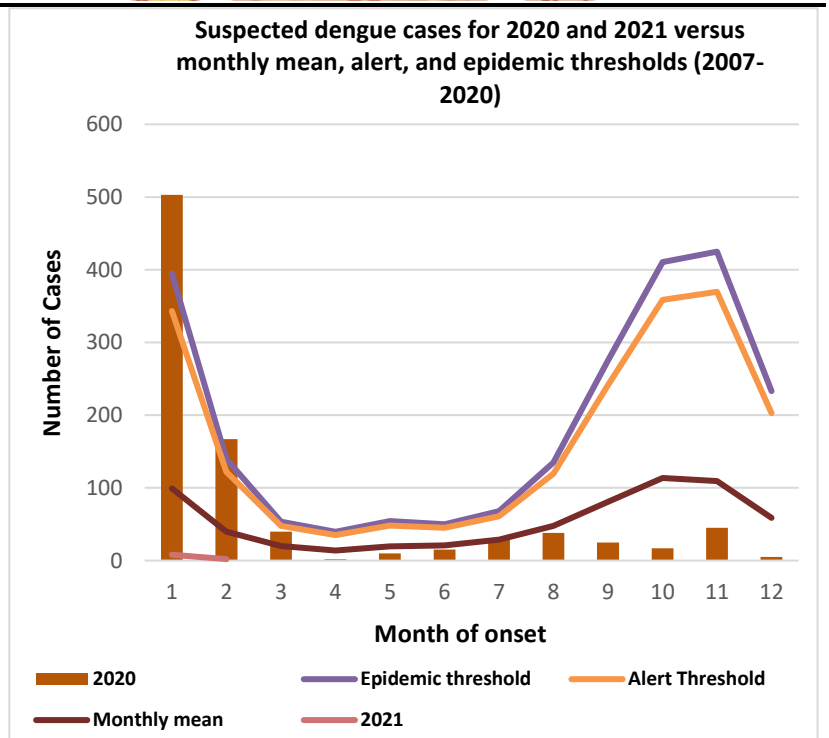
## Reported suspected and confirmed dengue with symptom onset in week 12 of 2021

	2021*	
	EW 12	YTD
Total Suspected Dengue Cases	0	10
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



### Points to note:

- \*Figure as at April 1, 2021
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



**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

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# RESEARCH PAPER

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## ABSTRACT

### *Physical Restraint Usage at a Type A Teaching Hospital: A Pilot Study*

*A Barton-Gooden, P Dawkins, J Bennett*

*The UWI School of Nursing, University of the West Indies, Mona, Kingston 7, Jamaica*

**Objective:** To examine the use of physical restraints among adult patients on the medical-surgical wards and psychiatric unit at a type A teaching hospital.

**Method:** This mixed method exploratory study used restraint prevalence tools to observe 172 patients and conduct 47 chart reviews. Two focus group discussions with nurses (6) and doctors (2) working in the selected areas was conducted. Quantitative data were analyzed using SPSS® version 17.0. Qualitative data were audio-taped, transcribed and thematically analyzed.

**Results:** Prevalence of physical restraints on the medical-surgical units was 75%, with full or partial bedrails (70%) and limb and trunk devices (5%). No physical restraint use was observed on the psychiatric unit at the time of the study. Limb restraints were inappropriately applied (43%), and no written consent or doctors orders were seen (90%). Discussants were females' ages 20-39 years, with 8-36 months experience in the area. All participants expressed sadness, guilt and fears about restraint usage and reported lack of formal training, inadequate resources and institutional support in applying physical restraints. The majority of study participants (70%) were unaware of both the physical restraint protocol and policy at the institution.

**Conclusion:** Bedrails were the dominant type of physical restraint used at the type A teaching hospital. Most nurses and doctors were ambivalent about the application of physical restraints which could cause injury to patients and reported lack of training and inadequate institutional support. The pilot study provides evidence for the planned implementation of the national study and the formulation of a multidisciplinary team to inform policy and practice.



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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