

WEEKLY EPIDEMIOLOGY BULLETIN

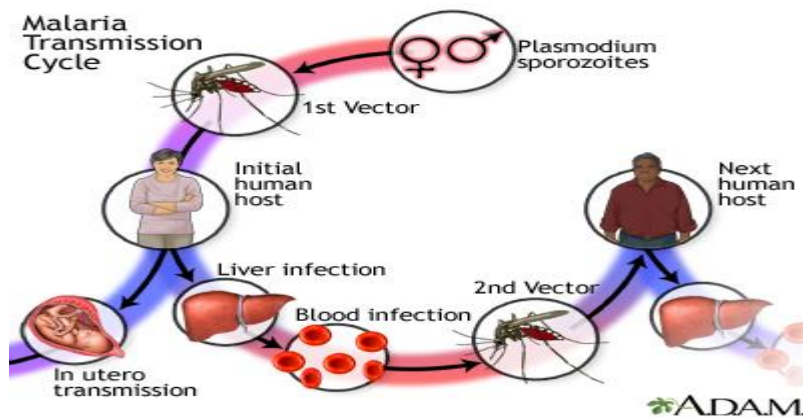
NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

EPI WEEK 11

Malaria: General information

Malaria is a disease caused by the parasite *Plasmodium*, which is transmitted by the bite of an infected mosquito. Only the Anopheles genus of the mosquito can transmit Malaria. The symptoms of the disease include fever, vomiting, and/or headache. A characteristic malarial fever has 'hot', 'wet', and 'cold' phases and appears 10 to 15 days after the mosquito bites. To diagnose malaria, blood slides are examined under a microscope, where the parasite is seen inside red blood cells. Rapid diagnostic test kits (RDTs) are used for diagnosing malaria in remote areas where microscopes cannot be used.

Plasmodium vivax or *P. falciparum* are the most common malarial parasites, while *P. malariae* and *P. ovale* are other rarer forms. Of these, infection with *P. falciparum* is the most fatal if left untreated, possibly leading to kidney and brain complications, and even death. Chloroquine was the treatment of choice for malaria and is still followed in most countries for treatment of *P. Vivax*, but *P. falciparum* has developed resistance to it. As a result, Artemisinin-based combination therapy is now presently advised as the primary treatment for malaria. Among preventive measures, the use of insecticide treated nets at home and indoor residual spraying of insecticides are recommended for malaria. These precautions act by decreasing exposure to bites of infected mosquitoes.



Key facts

- Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected mosquitoes.
- A child dies of malaria every 2 minutes.
- There were 212 million cases of malaria in 2015, causing nearly 429,000 deaths, mostly among African children.
- In the Americas, 568,000 cases of malaria and around 220 deaths were reported in 2016.
- Malaria is preventable and curable.
- Approximately half of the world's population is at risk of malaria, particularly those living in lower-income countries. In the Americas 132 million people are considered to be living in areas at risk of malaria.
- Travellers from malaria-free areas to disease "hot spots" are especially vulnerable to the disease.
- Malaria takes an economic toll - cutting economic growth rates by as much as 1.3% in countries with high disease rates..

https://www.paho.org/hq/index.php?option=com_content&view=article&id=2573&Itemid=2060&lang=en

SYNDROMES



PAGE 2

CLASS 1 DISEASES



PAGE 4

INFLUENZA



PAGE 5

DENGUE FEVER



PAGE 6

GASTROENTERITIS



PAGE 7

RESEARCH PAPER



PAGE 8

SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica



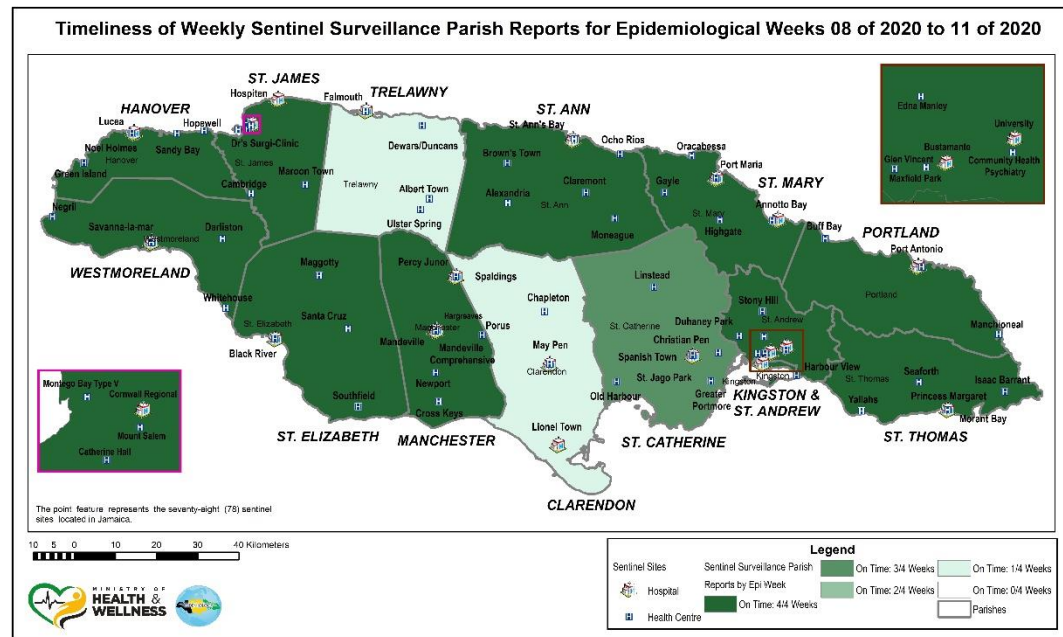
A syndromic surveillance system is good for early detection of and response to public health events.

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 - 8 to 11 of 2020

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

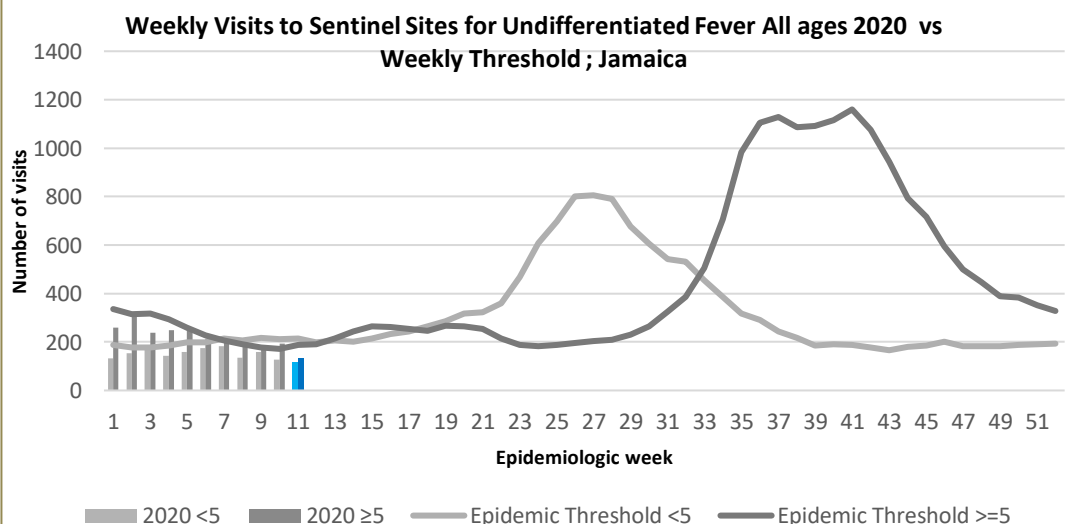
FEVER

Temperature of $>38^{\circ}\text{C}$ / 100.4°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



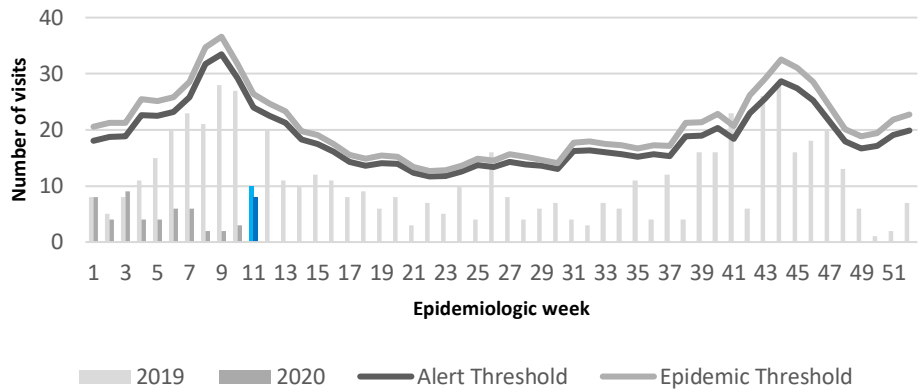
SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 2019 and 2020 vs. Weekly Threshold; Jamaica

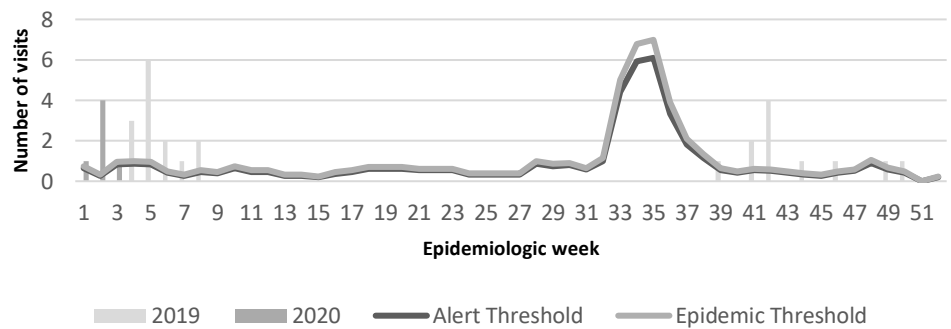


FEVER AND HAEMORRHAGIC

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 2019 and 2020 vs Weekly Threshold; Jamaica



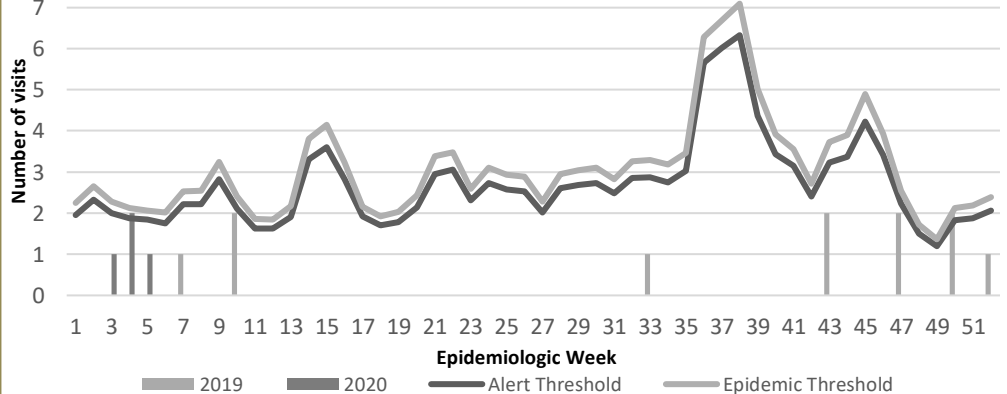
FEVER AND JAUNDICE

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 2019 and 2020



3 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



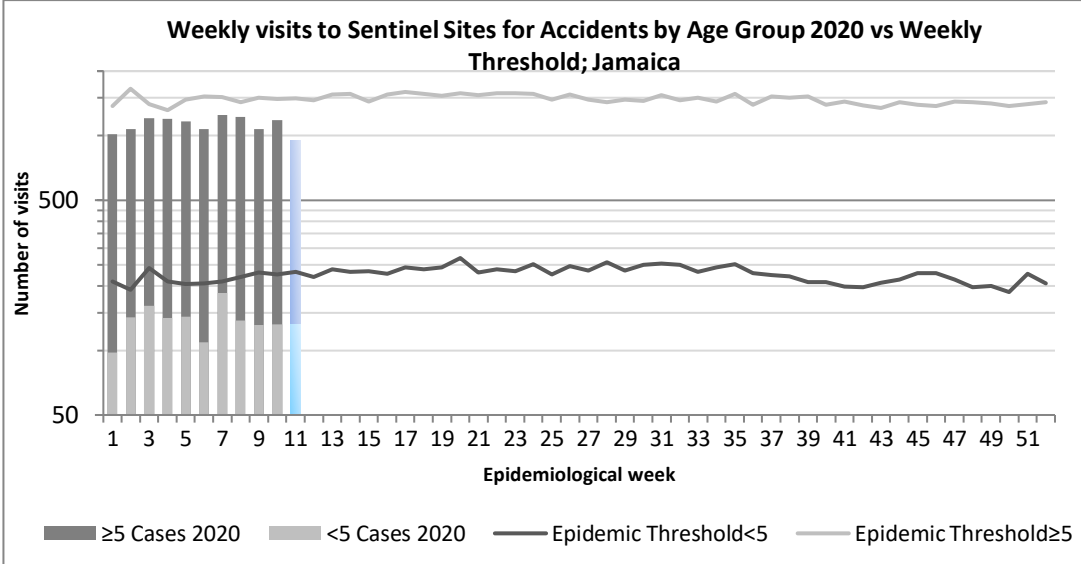
SENTINEL REPORT- 78 sites. Automatic reporting

ACCIDENTS

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

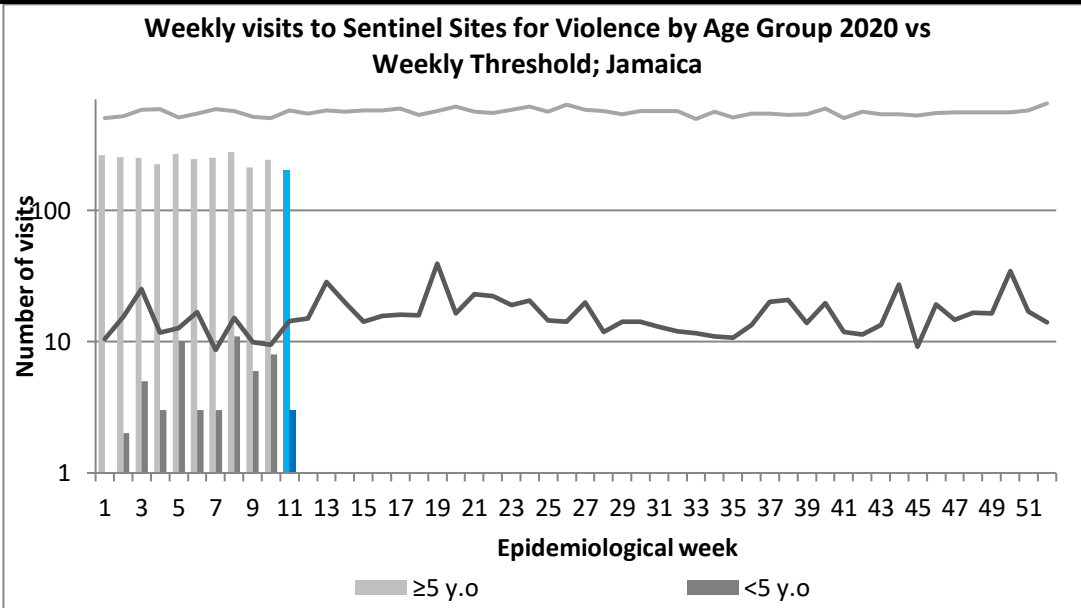
KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK



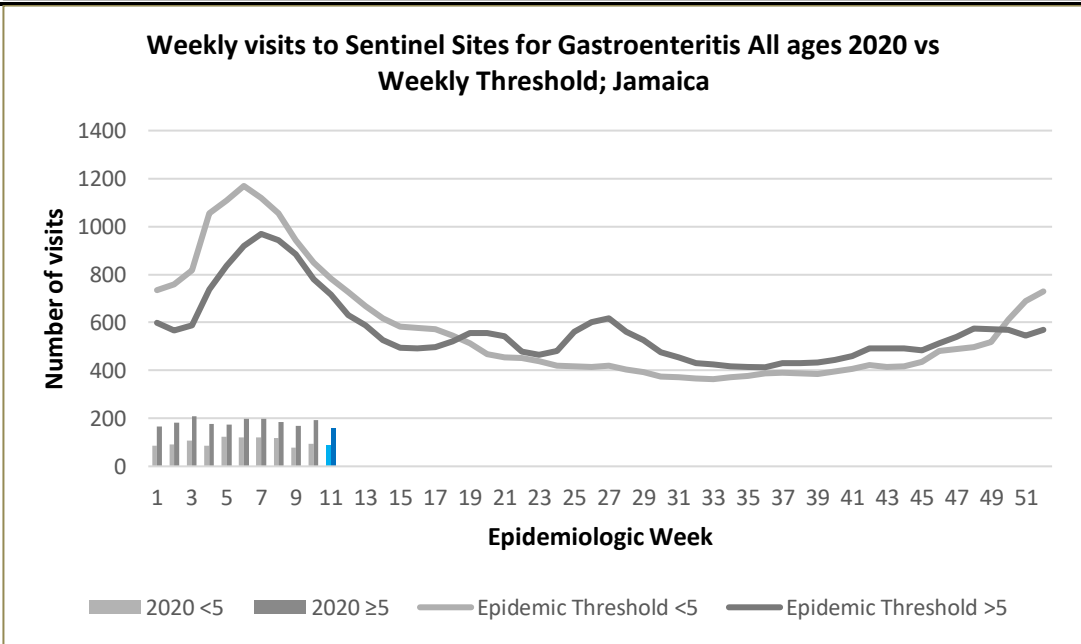
VIOLENCE

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		
		CURRENT YEAR 2020	PREVIOUS YEAR 2019	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	5	6	
	Cholera	0	0	
	Dengue Hemorrhagic Fever*	NA	NA	
	Hansen's Disease (Leprosy)	0	0	
	Hepatitis B	0	1	
	Hepatitis C	0	1	
	HIV/AIDS	NA	NA	
	Malaria (Imported)	0	0	
	Meningitis (Clinically confirmed)	1	10	
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**	10	10	
	Ophthalmia Neonatorum	23	53	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	0	
	Tuberculosis	0	11*****	
Yellow Fever	0	0		
Chikungunya***	0	0		
Zika Virus****	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.

* Dengue Hemorrhagic Fever data include Dengue related deaths;

** Figures include all deaths associated with pregnancy reported for the period. * 2019 YTD figure was updated.


*** CHIKV IgM positive cases



**** Zika PCR positive cases

Erratum
The Tuberculosis figure as at EW 10 2019 is 11 and remained the same at EW 11 2019.

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

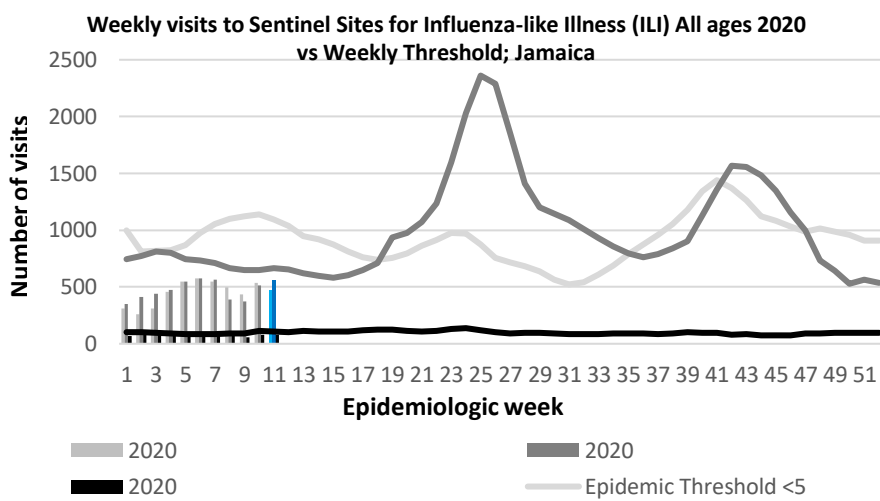
 SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 11

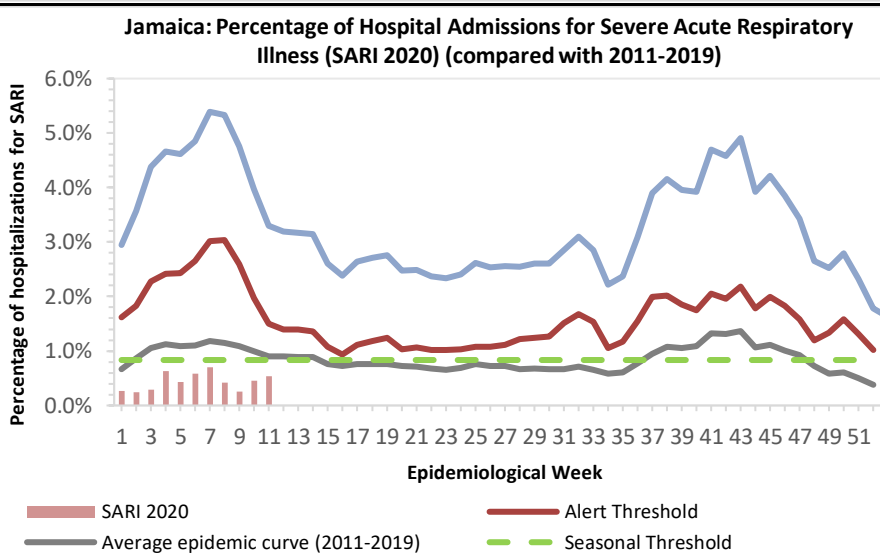
March 08, 2020–March 14, 2020 Epidemiological Week 11

	EW 11	YTD
SARI cases	8	78
Total Influenza positive Samples	7	59
Influenza A	3	37
H3N2	0	2
H1N1pdm09	2	34
Not subtyped	1	1
Influenza B	4	22
Parainfluenza	0	0



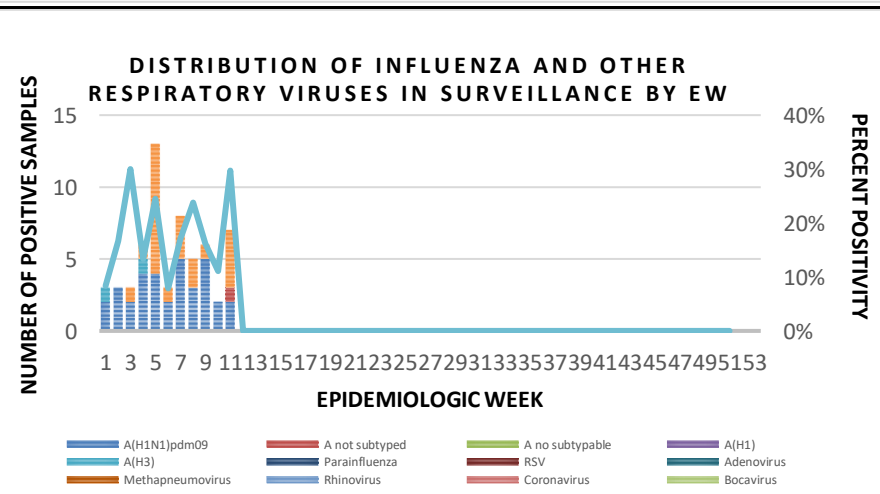
Epi Week Summary

During EW 11, 8 (eight) SARI admissions were reported.



Caribbean Update EW 11

Caribbean: Overall, influenza activity was elevated in the sub-region. In Cuba, influenza activity increased with influenza A and B viruses co-circulating. Influenza activity decreased in Belize with influenza A(H1N1)pdm09 and influenza B viruses co-circulating. All the French Territories are in the epidemic phase with a continued increase in influenza activity observed in Guadeloupe and Martinique. In Saint-Barthélemy influenza activity was stable. In the Dominican Republic, influenza activity slightly decreased with influenza A(H1N1)pdm09 predominance and influenza B/Yamagata co-circulating. In Saint Lucia, influenza-like illness was above the epidemic threshold with influenza A(H1N1)pdm09 virus circulating 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

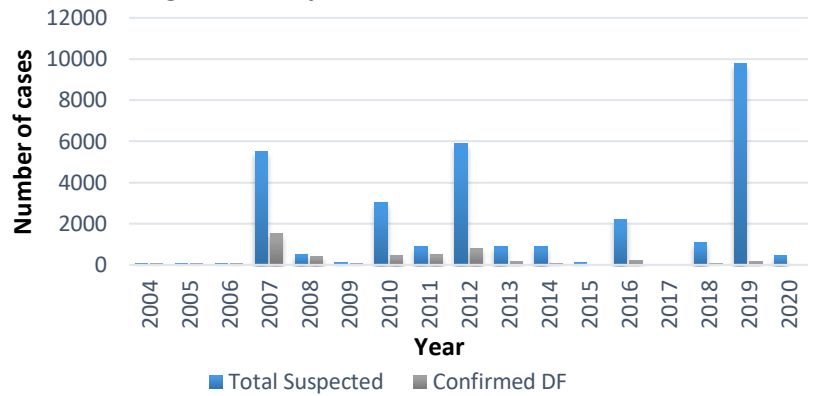
Dengue Bulletin

March 08, 2020-March 14, 2020 Epidemiological Week 11


Epidemiological Week 11



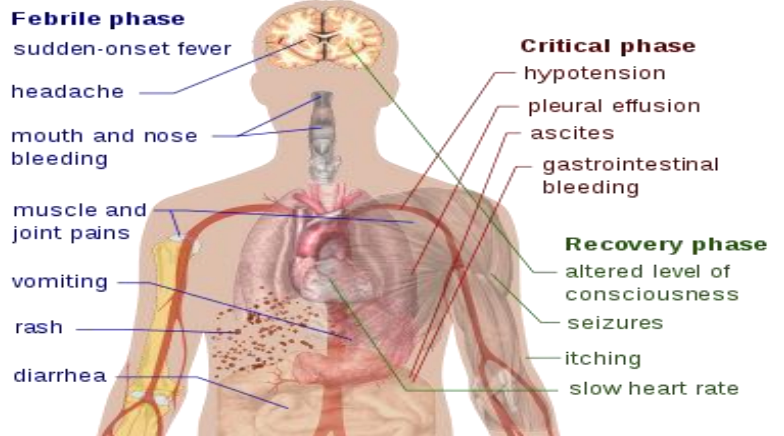
Dengue Cases by Year: 2004-2020, Jamaica



Reported suspected and confirmed dengue with symptom onset in week 11 of 2020

	2020	
	EW 11	YTD
 Total Suspected Dengue Cases	3**	530**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**

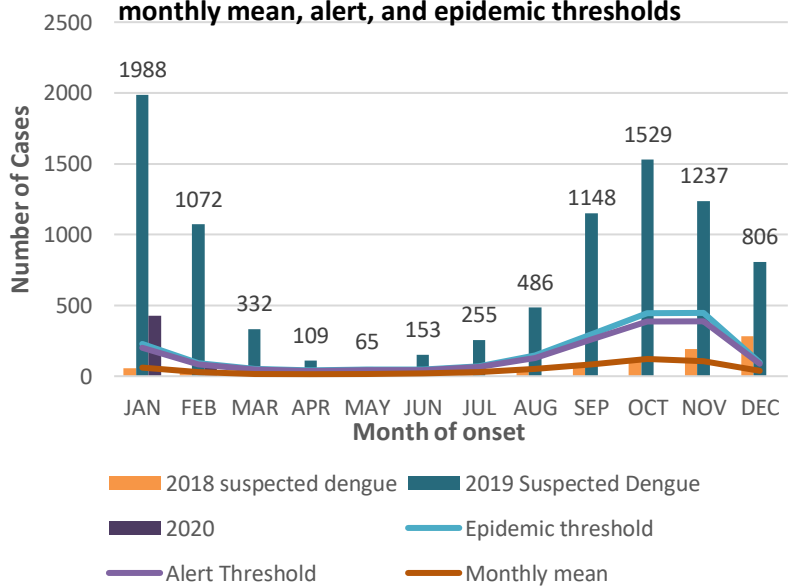
Symptoms of Dengue fever




Points to note:

- ** figure as at March 19 , 2020
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2018 and 2019 versus monthly mean, alert, and epidemic thresholds



 **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

RESEARCH PAPER

ABSTRACT

Using the Beck Depression Inventory to Identify Depressive Symptoms in Jamaican Youths

Ms. Denise Simpson – Citizen Security and Justice Programme, Ministry of National Security
(dendenson@gmail.com)

Mr. Kenneth Barnes - Citizen Security and Justice Programme, Ministry of National Security

Objectives:

This study examined the prevalence of depressive symptoms in youths and seeks to find the symptoms that tend to occur most frequently within this sample. The assessments were done at a treatment site within the Central Region of the Citizen, Security and Justice Program (CSJP) under the Ministry of National Security (MNS).

Methods:

Participants ages 18 to 30 years completed the Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996), over the period January 2017 to December 2018. Other measures of socio-demographic background were also collected. Data gathered from the 21 categories of the BDI-II instrument were then entered into SPSS for analysis.

Results:

A wide cross-section of at risk youths from four (4) parishes in rural Jamaica were sampled (n=154; 61% male, 39% females; mean age =22.7. An analysis of the data showed that approximately seven in every ten participant (71.4%) reported some symptoms of depression with 16.9% reporting mild symptoms; 22.7% reporting moderate symptoms and 31.8% reporting severe symptoms of depression. Symptoms that were most prevalent in this sample included sadness (73.9%); punishment feelings (70.7%); and guilty feelings (67.5%)

Results also show that there were significant differences in gender in their prevalence of depressive symptoms. Females were more likely to report depressive symptoms than males (p=.004). Additionally, the analysis revealed significant differences in educational levels for depressive symptoms. Participants who reported having primary/all age as the highest level of education were more likely to report depressive symptoms than those who reported having secondary/high school education (p=.024).

Conclusion:

The use of the Beck Depression Inventory II (BDI-II) to assess depressive symptoms in youths in Jamaica is an effective way to identify prevalent symptoms that impact mental health for that population. Gender differences in depression scores are consistent with studies in other countries (Lowe, 2005). In comparison to previous studies (Beck 1967) this sample had a higher percentage of youths scoring in the “none to minimal” depressive and severely depressed ranges.

These findings warrant closer examination of the contributing factors of depression among Jamaican youths. This information should be useful for practitioners working with similar populations.



The Ministry of Health and Wellness
24-26 Grenada Crescent
Kingston 5, Jamaica
Tele: (876) 633-7924
Email: surveillance@moh.gov.jm



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