

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## WHO commemorates the 40th anniversary of smallpox eradication

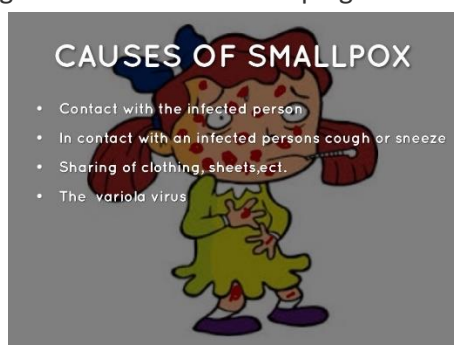
Smallpox is an acute contagious disease caused by the variola virus, a member of the orthopoxvirus family. It was one of the world's most devastating diseases known to humanity. The last known natural case was in Somalia in 1977. It was declared eradicated in 1980 following a global immunization campaign led by the World Health Organization.

Smallpox is transmitted from person to person via infective droplets during close contact with infected symptomatic people.

The World Health Organization commemorated the 40th anniversary of smallpox eradication today, recognizing the historic moment on 9 December 1979 when the end of smallpox was confirmed to have been eradicated. Five months later, in May 1980, the 33rd World Health Assembly issued its official declaration that 'the world and all its peoples have won freedom from smallpox'.

Until it was wiped out, smallpox had plagued humanity for at least 3000 years, killing 300 million people in the 20th century alone. The last known endemic case of smallpox was reported and the outbreak promptly contained in Somalia in 1977.

The successful smallpox eradication programme yielded vital knowledge and tools for the field of disease surveillance, the benefits of ring vaccination and the importance of health promotion in fighting diseases such as poliomyelitis and the Ebola virus. It also laid the foundation for stronger national immunization programmes worldwide, underpinning establishment primary health care in many countries and creating momentum toward Universal Health Coverage.



## EPI WEEK 48

### 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



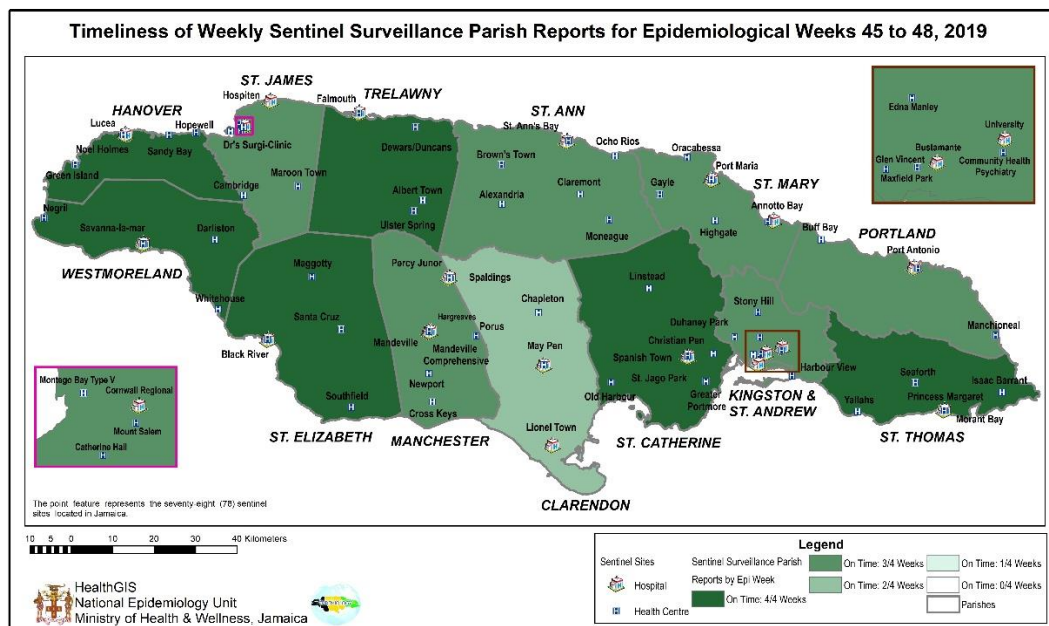
A syndromic surveillance system is good for early detection of and response to public health events.

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 - Weeks 44 to 48

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

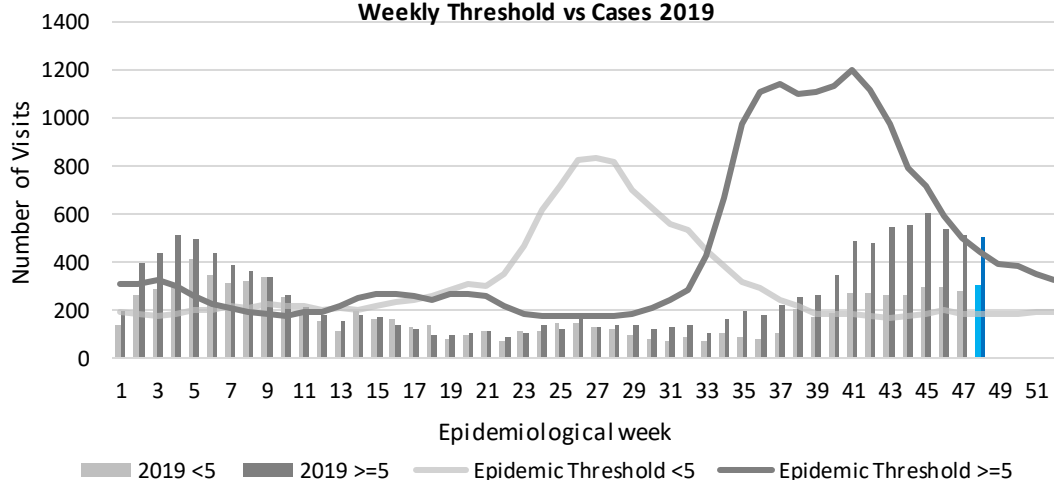
### FEVER

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

### Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica, Weekly Threshold vs Cases 2019



**2 NOTIFICATIONS-**  
All clinical sites



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



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



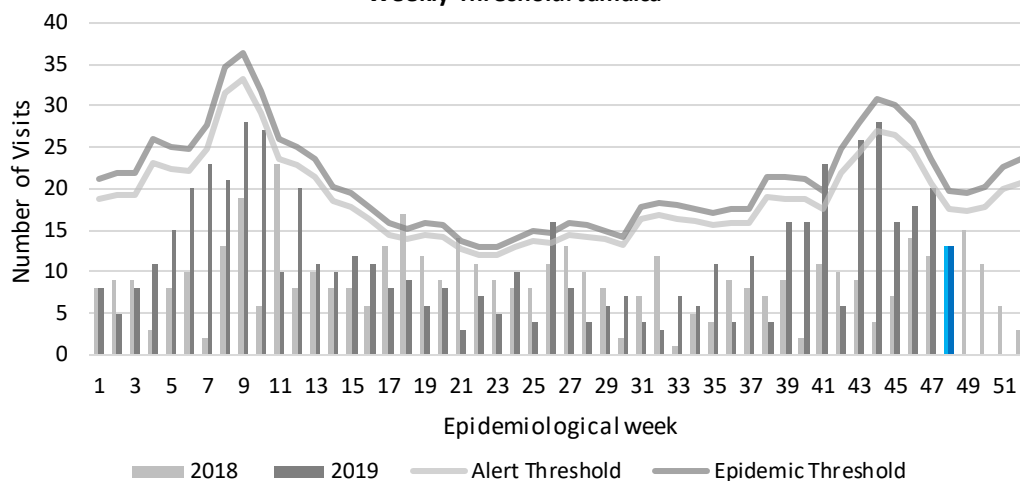
**SENTINEL REPORT-** 78 sites. Automatic reporting

**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).



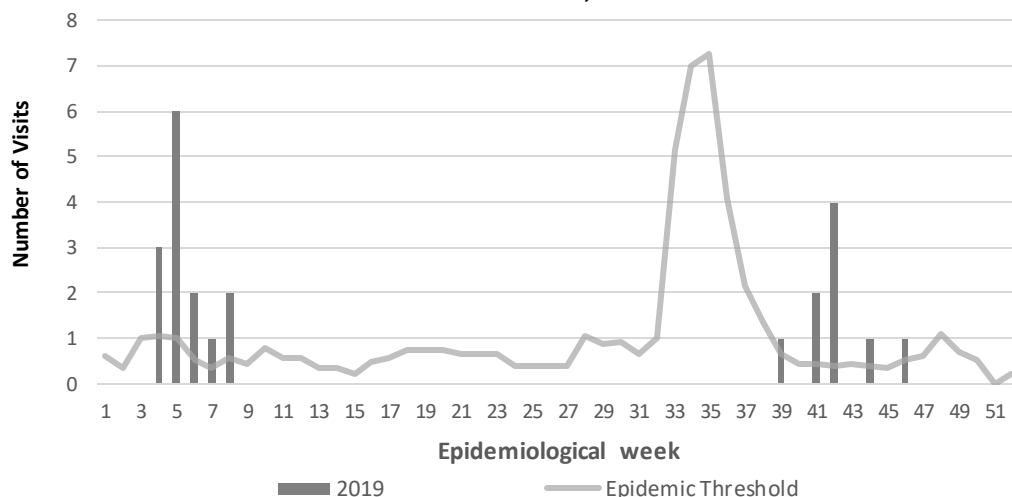
**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs. Weekly Threshold: Jamaica**

**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. Visits for Fever and Haemorrhagic symptoms were reported in weeks 4 to 8, 39, 41, 42, 44 and 46 year to date.



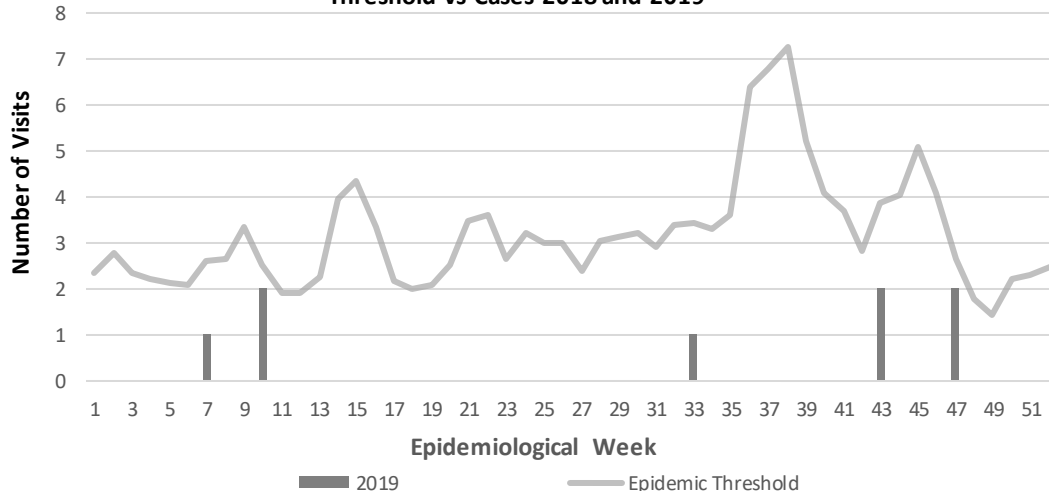
**Weekly Visits to Sentinel Sites for Fever and Haemorrhagic 2019 vs Weekly Threshold; Jamaica**

**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. Visits to sentinel sites for Fever and Jaundice were reported in weeks 7, 10, 33, 43 and 48 only, year to date.

**Weekly visits to Sentinel Sites for Fever and Jaundice : Jamaica, Weekly Threshold vs Cases 2018 and 2019**



**3 NOTIFICATIONS-**  
All clinical sites



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



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



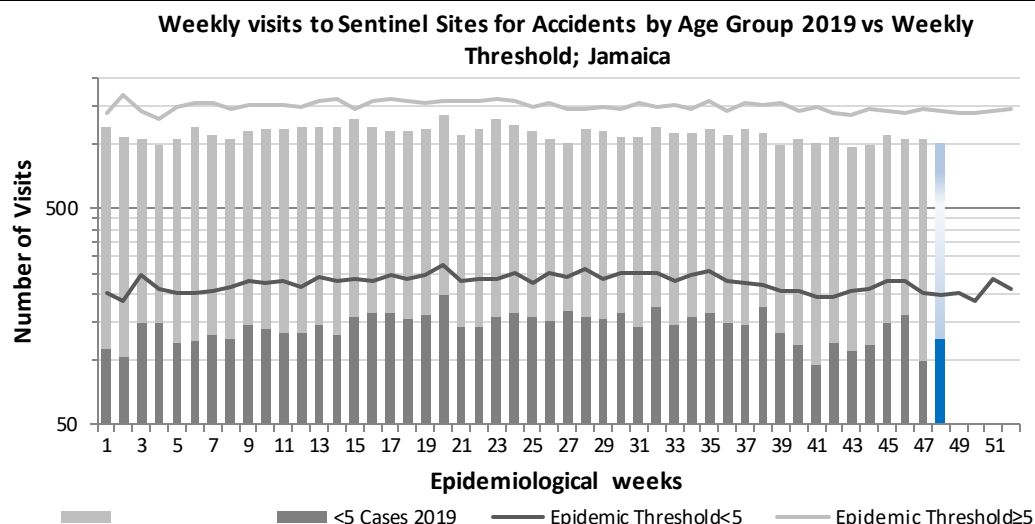
**SENTINEL REPORT-** 78 sites. Automatic reporting

**ACCIDENTS**

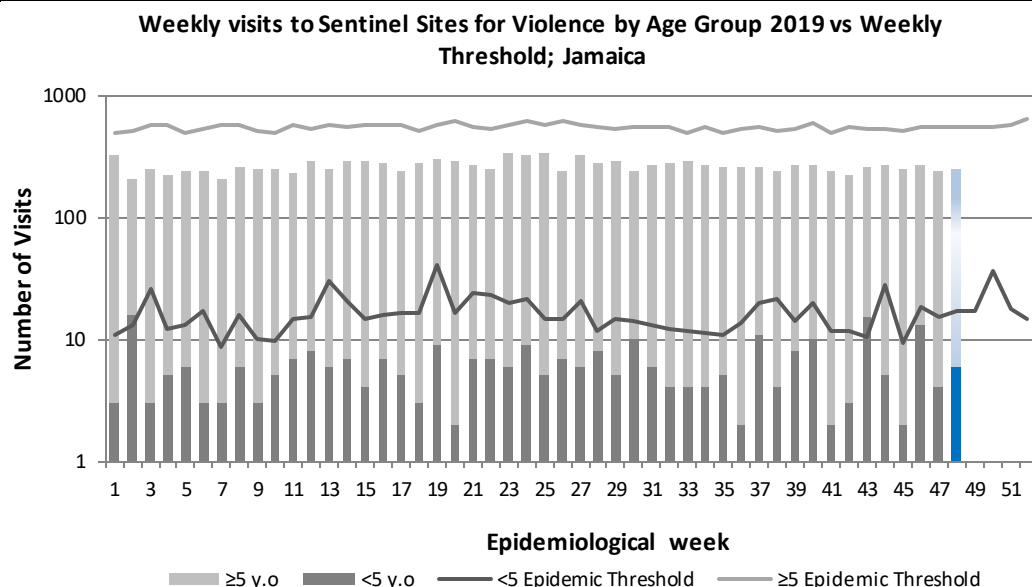
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

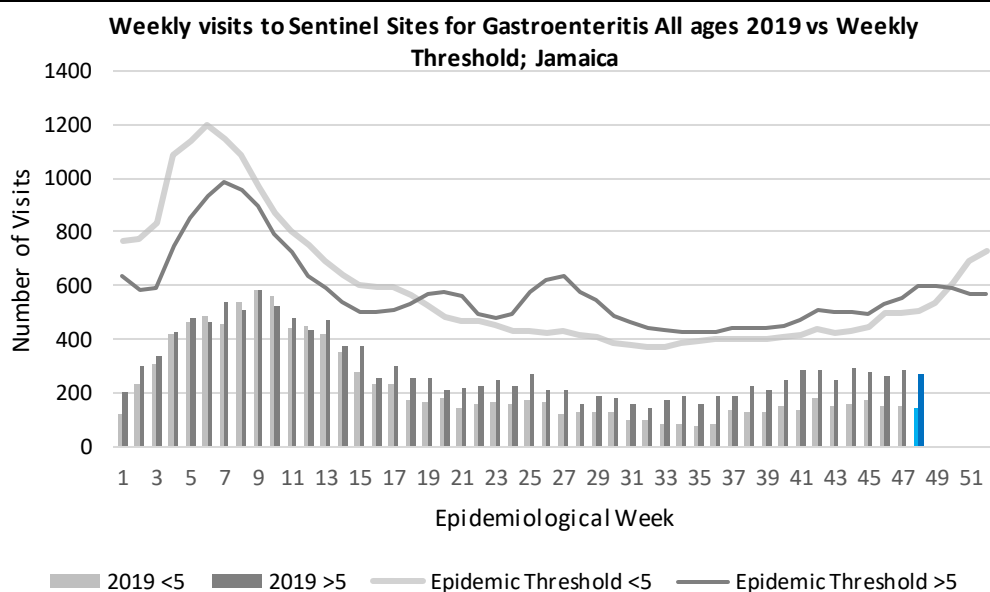
**VARIATIONS Of BLUE SHOW CURRENT WEEK**

**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	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	106	184	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.
	Cholera	0	0	
	Dengue Hemorrhagic Fever*	NA	NA	
	Hansen's Disease (Leprosy)	0	0	
	Hepatitis B	23	85	
	Hepatitis C	2	7	
	HIV/AIDS	NA	NA	
	Malaria (Imported)	1	5	
	Meningitis (Clinically confirmed)	21	37	
EXOTIC/ UNUSUAL	Plague	0	0	* Dengue Hemorrhagic Fever data include Dengue related deaths;  ** Figures include all deaths associated with pregnancy reported for the period.  *** CHIKV IgM positive cases  **** Zika PCR positive cases
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	
		Rubella	0	
	Maternal Deaths**	59	59	
	Ophthalmia Neonatorum	222	272	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	0	
	Tuberculosis	58	73	
	Yellow Fever	0	0	
	Chikungunya***	7	10	NA- Not Available
	Zika Virus****	0	1	



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.  
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# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

November 24– November 30, 2019 Epidemiological Week 48

*EW 48*

	<i>EW 48</i>	<i>YTD</i>
SARI cases	7	490
<b>Total Influenza positive Samples</b>	<b>7</b>	<b>468</b>
<b>Influenza A</b>	<b>7</b>	<b>425</b>
H3N2	5	187
H1N1pdm09	0	226
Not subtyped	2	9
<b>Influenza B</b>	<b>0</b>	<b>43</b>
<b>Parainfluenza</b>	<b>0</b>	<b>7</b>

## Epi Week Summary

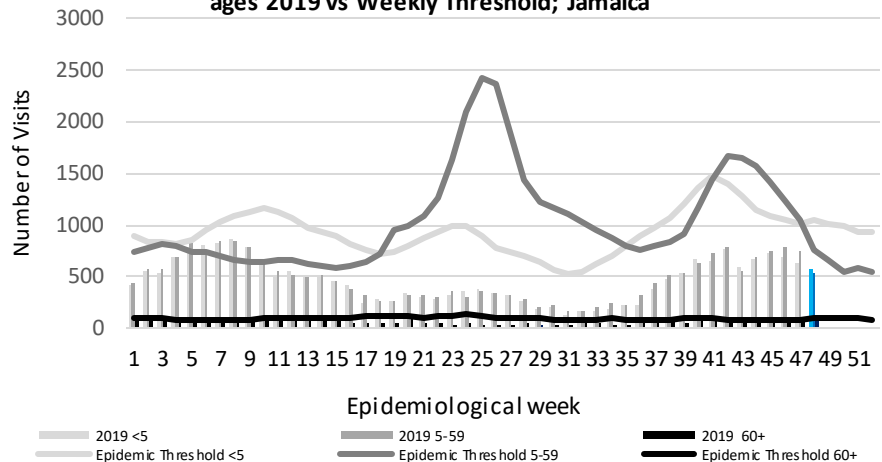
During EW 48, 7 cases of influenza were detected. Percent positivity is 43.8%.

During EW 48, 7 (seven) SARI admissions were reported.

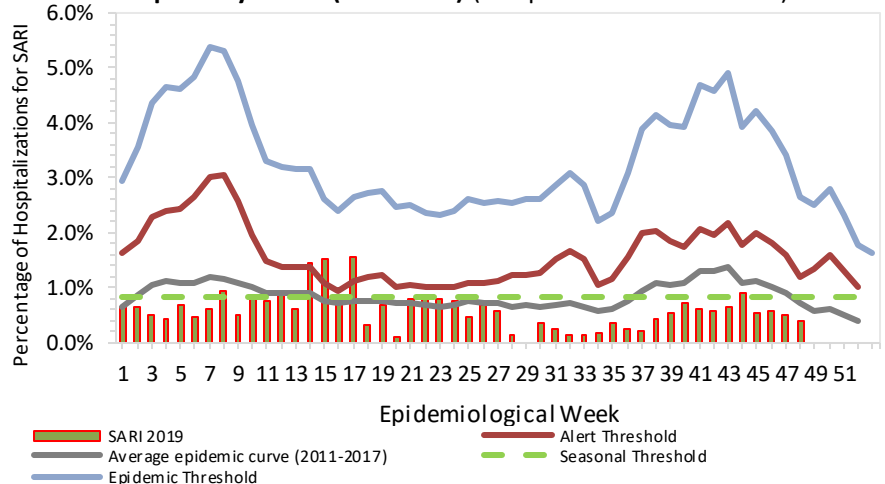
## Caribbean Update EW48

Influenza activity increased in some countries of the sub-region. In Cuba influenza activity increased with influenza B/Victoria viruses predominance; SARI cases increased but remained below levels observed in previous seasons for the same period. In Haiti, influenza activity increased in recent weeks with influenza A(H3N2) predominance; SARI cases increased and remained below the seasonal threshold. Influenza activity continued increased in Jamaica with influenza A(H3N2) virus predominance and SARI cases at low levels..

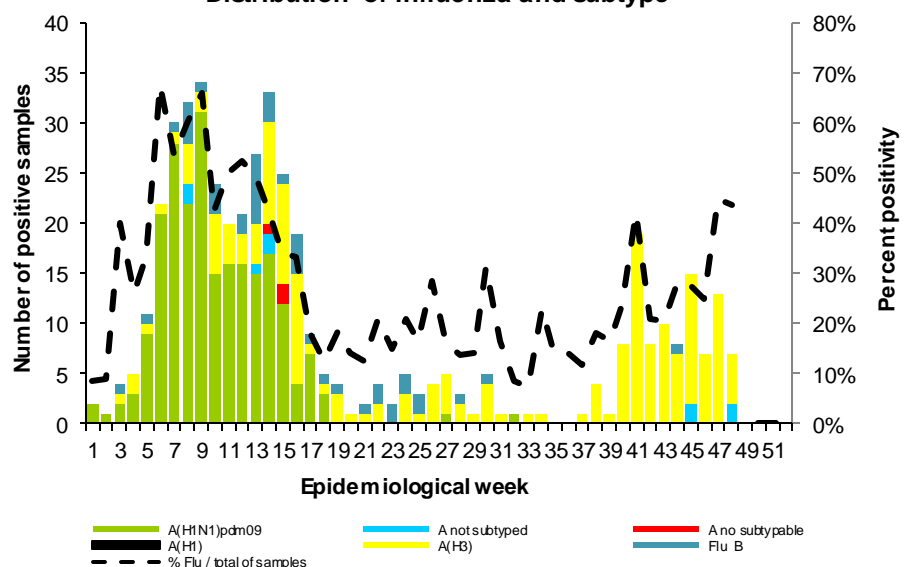
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2019 vs Weekly Threshold; Jamaica



Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2019) (compared with 2011-2018)



Distribution of influenza and subtype



6 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
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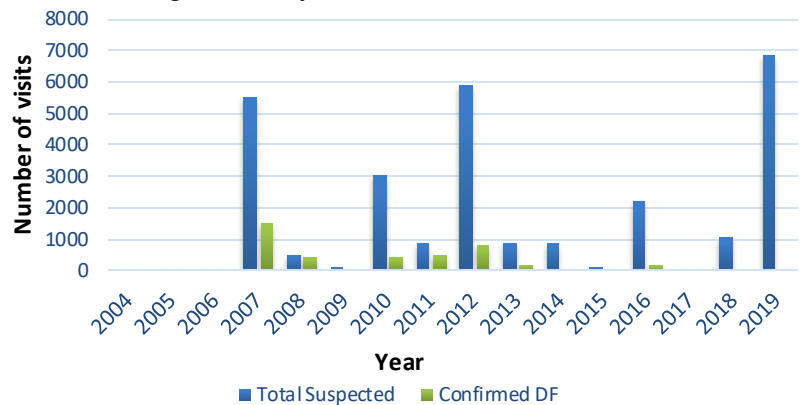
# Dengue Bulletin

November 24– November 30, 2019 Epidemiological Week 48

Epidemiological Week 48



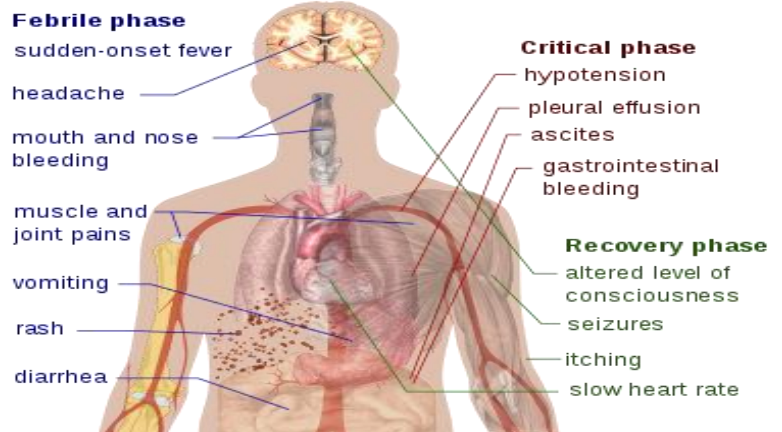
Dengue Cases by Year: 2004-2019, Jamaica



## Reported suspected and confirmed dengue with symptom onset in weeks 1-48 2019

	2019		2018 YTD
	EW 48	YTD	
Total Suspected Dengue Cases	0	6996	653
Lab Confirmed Dengue cases	1	71	14
CONFIRMED Dengue Related Deaths	0	15	2

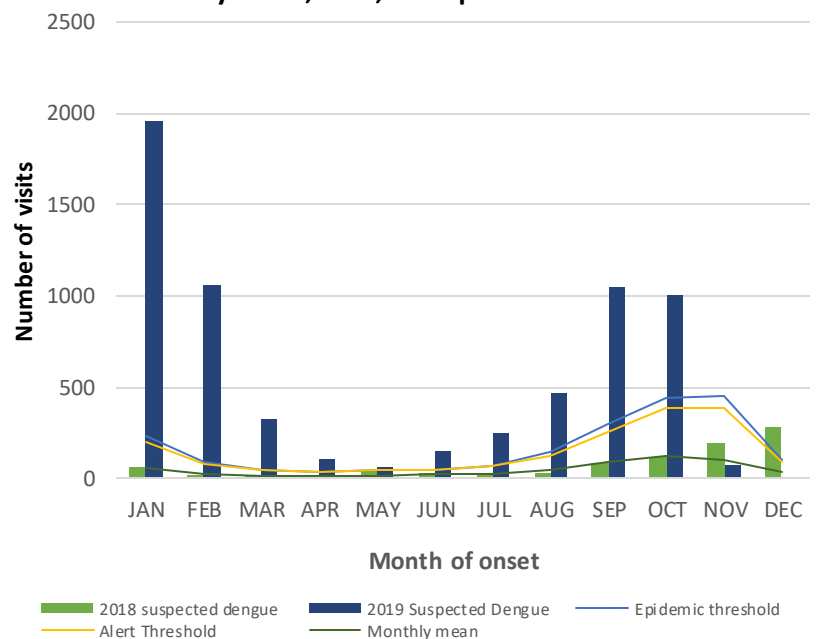
## Symptoms of Dengue fever



## Points to note:

- \*\*figure as at December 5, 2019
- 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

**Title:** “ Anthropometry and food frequency in chronic non-communicable disease: associations in a clinic population”

Authors: S. Robinson, S. Dawson

E-mail address: [stephenrobinson29@yahoo.com](mailto:stephenrobinson29@yahoo.com)

### **Objective:**

To investigate the relation of body mass index (BMI) and waist circumference (WC) to frequency of consumption of commonly consumed foods, in patients enrolled at a Type V Health Centre in Kingston.

### **Method:**

Twenty –four adult patients (22 females) attending the CNCD Clinic were conveniently selected for the study, with a cross-sectional analysis being conducted on these patients. Participants were selected if they were diagnosed with at least one CNCD. Their weights, heights, and waist circumferences were measured and data on the frequency of consumption of selected foods acquired utilizing an administered questionnaire. The main outcome measure was a correlation between anthropometry and food frequency.

### **Results:**

Of the 24 subjects, 23 had a BMI >25.0 with 22 having a waist circumference exceeding the recommended limit (Females= 89 cm and Males =101 cm). Mean BMI was  $34.3 \pm 7.4$  with mean WC being  $104.9 \pm 17.7$  cm.

Neither BMI nor WC was significantly associated with frequency of consumption of any food item from the different Food Groups, but positive correlations were identified between BMI and age ( $p < 0.0001$ ), and BMI and WC ( $p = 0.00051$ ).

### **Conclusion:**

No statistically significant associations were found between BMI, Waist Circumference and food frequency in this population. A follow-up study (larger sample size, other food intake measures) is recommended to demystify whatever link may exist between anthropometry and food intake. Alongside BMI measurements, WC could be used routinely in the nutritional assessment of CNCD patients at Health facilities.



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8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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