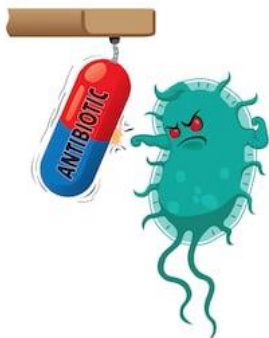


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

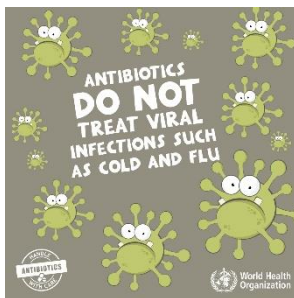
## Antibiotic resistance



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### Key facts

- Antibiotic resistance is one of the biggest threats to global health, food security, and development today.
- Antibiotic resistance can affect anyone, of any age, in any country.
- Antibiotic resistance occurs naturally, but misuse of antibiotics in humans and animals is accelerating the process.
- A growing number of infections – such as pneumonia, tuberculosis, gonorrhoea, and salmonellosis – are becoming harder to treat as the antibiotics used to treat them become less effective.
- Antibiotic resistance leads to longer hospital stays, higher medical costs and increased mortality.



Antibiotics are medicines used to prevent and treat bacterial infections. Antibiotic resistance occurs when bacteria change in response to the use of these medicines.

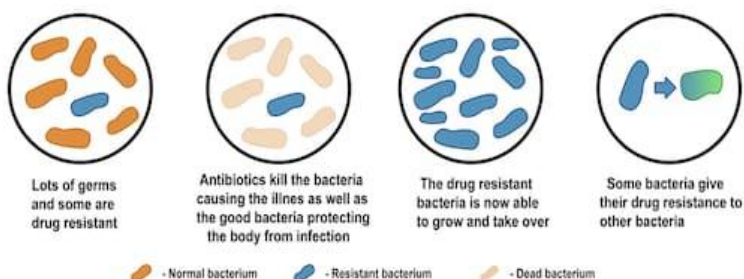
Bacteria, not humans or animals, become antibiotic-resistant. These bacteria may infect humans and animals, and the

infections they cause are harder to treat than those caused by non-resistant bacteria.

Antibiotic resistance leads to higher medical costs, prolonged hospital stays, and increased mortality.

The world urgently needs to change the way it prescribes and uses antibiotics. Even if new medicines are developed, without behaviour change, antibiotic resistance will remain a major threat. Behaviour changes must also include actions to reduce the spread of infections through vaccination, hand washing, practising safer sex, and good food hygiene.

## HOW ANTIBIOTIC RESISTANCE HAPPENS



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## EPI WEEK 31

### 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



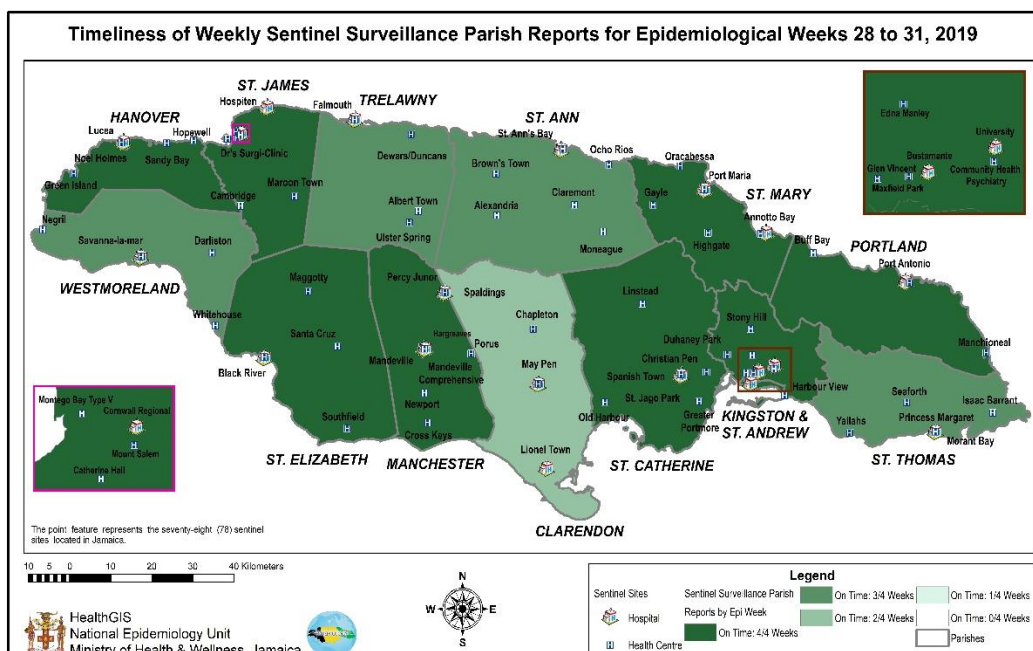
A syndromic surveillance system is good for early detection of and response to public health events.

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 28 to 31

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

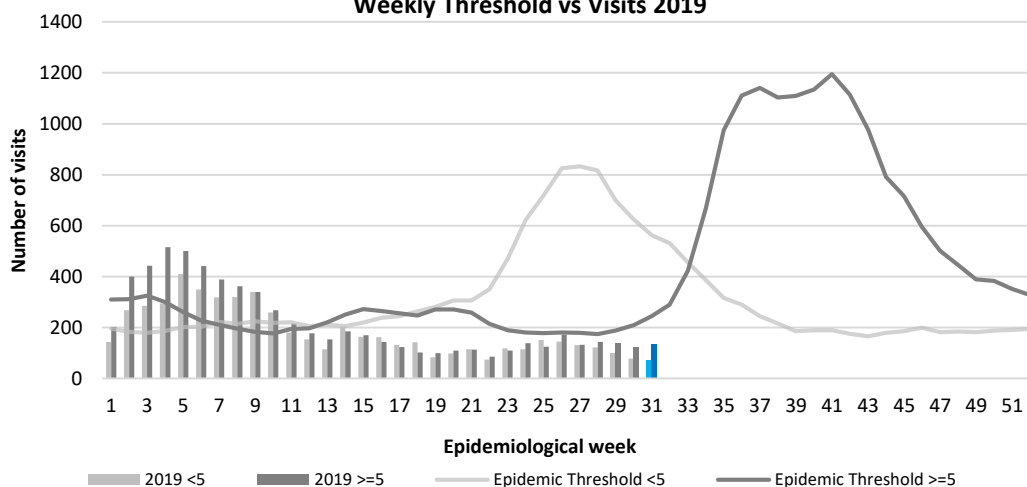
### FEVER

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 Visits 2019



2 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
pursued



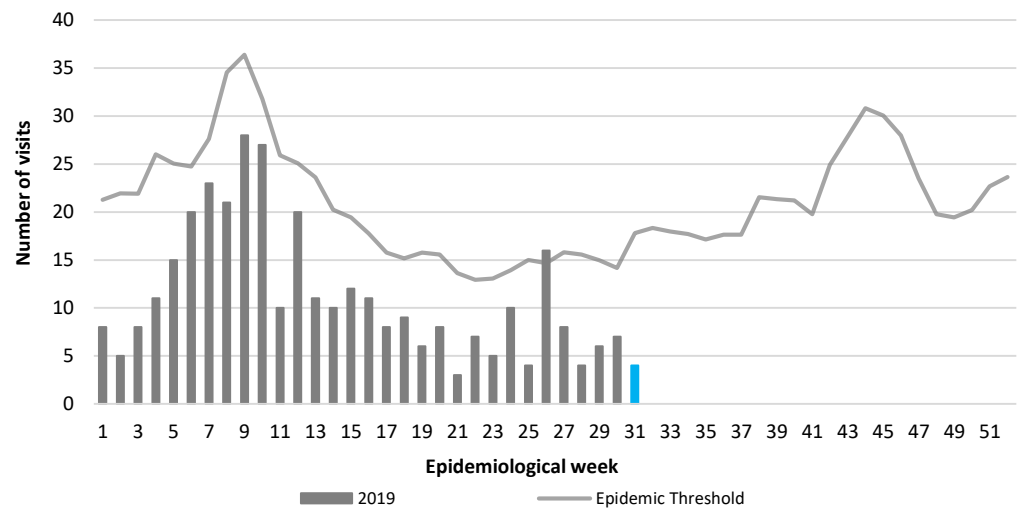
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

**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).



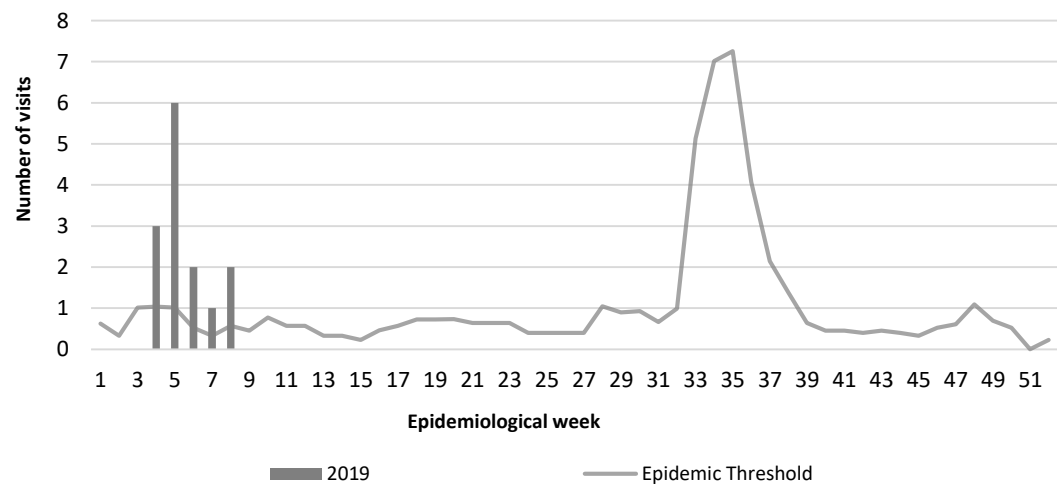
**Weekly visits to Sentinel Sites for Fever and Neurological symptoms 2019 vs Weekly Threshold: Jamaica**

**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 only, year to date.



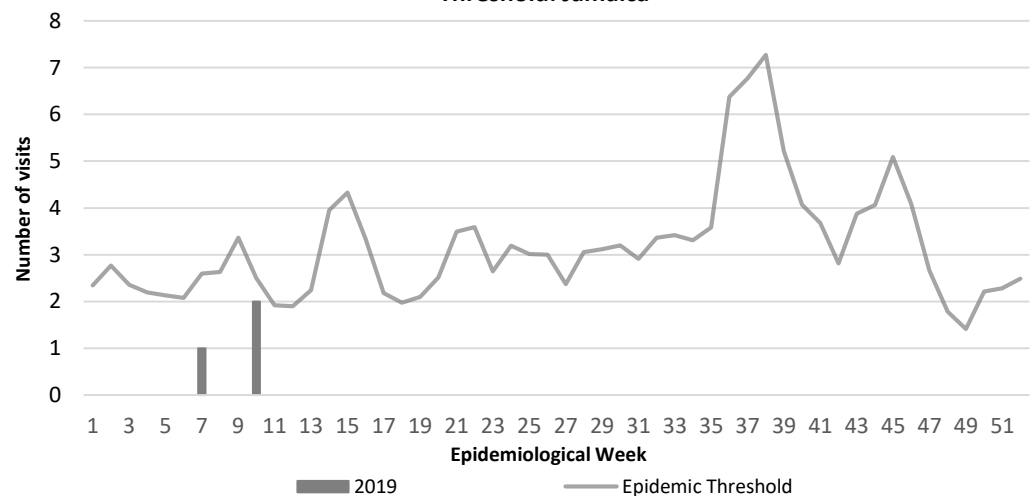
**Weekly visits to Sentinel Sites for Fever and Haemorrhagic Symptoms 2019 vs Weekly Threshold; Jamaica**

**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 and 10 only, year to date.

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



**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**

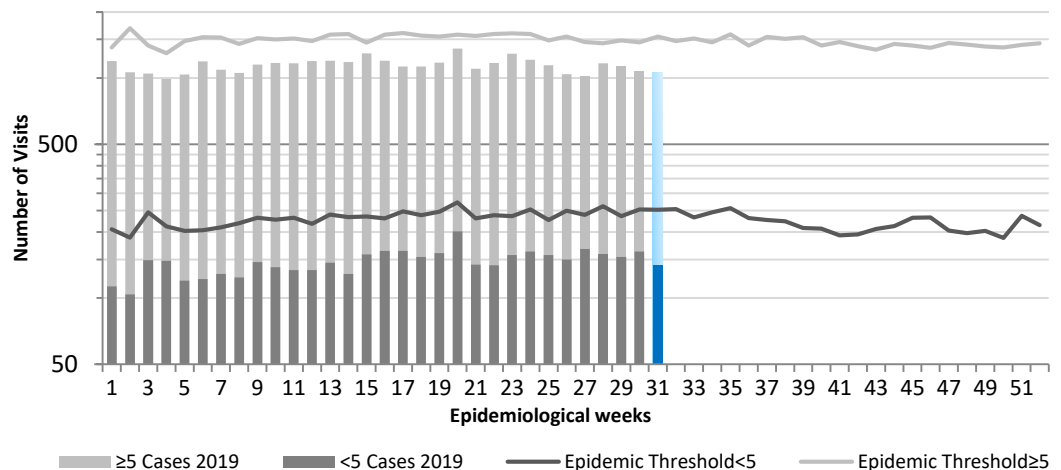
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

VARIATIONS OF BLUE SHOW CURRENT WEEK



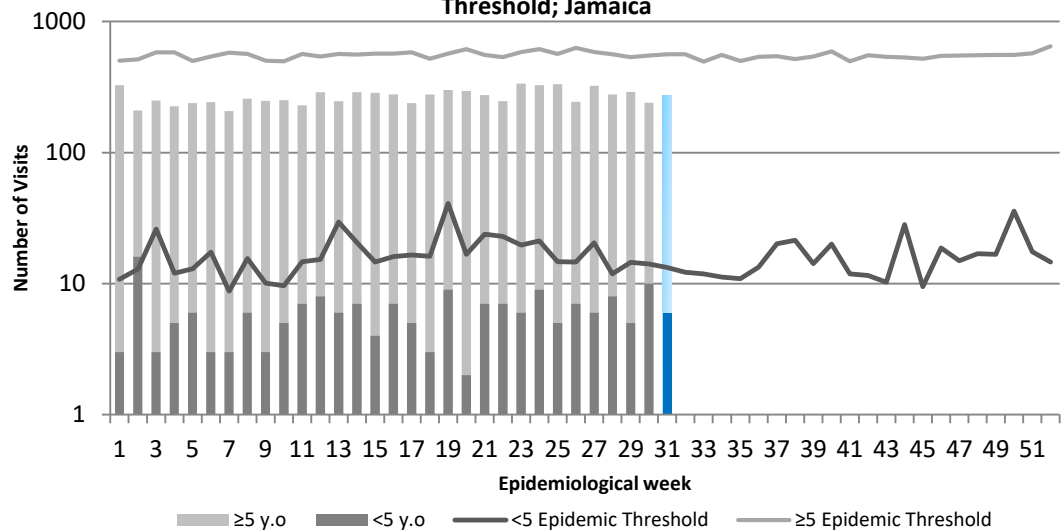
**Weekly visits to Sentinel Sites for Accidents by Age Group 2019 vs Weekly Threshold; Jamaica**

**VIOLENCE**

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



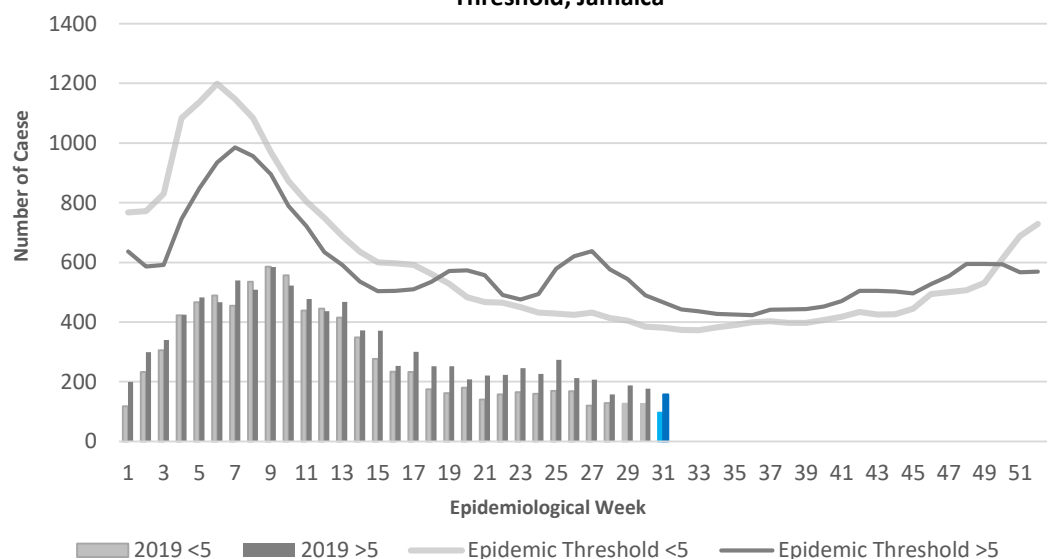
**Weekly visits to Sentinel Sites for Violence by Age Group 2019 vs Weekly Threshold; Jamaica**

**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 2019 vs Weekly Threshold; Jamaica**



**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
			Confirmed YTD		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.
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		28	130	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Cholera		0	0	
	Dengue Hemorrhagic Fever*		NA	NA	
	Hansen’s Disease (Leprosy)		0	0	
	Hepatitis B		11	24	
	Hepatitis C		2	2	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		0	2	
	Meningitis (Clinically confirmed)		13	37	
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever data include Dengue related deaths;
HIGH MORBIDIT/ MORTALITY	Meningococcal Meningitis		0	0	** Figures include all deaths associated with pregnancy reported for the period.
	Neonatal Tetanus		0	0	
	Typhoid Fever		0	0	
	Meningitis H/Flu		0	0	
SPECIAL PROGRAMMES	AFP/Polio		0	0	*** CHIKV IgM positive cases  **** Zika PCR positive cases
	Congenital Rubella Syndrome		0	0	
	Congenital Syphilis		0	0	
	Fever and Rash	Measles	0	0	
		Rubella	0	0	
	Maternal Deaths**		35	35	
	Ophthalmia Neonatorum		116	191	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		27	34	
	Yellow Fever		0	0	
	Chikungunya***		0	0	
	Zika Virus****		0	0	NA- Not Available



5 NOTIFICATIONS-  
All clinical sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



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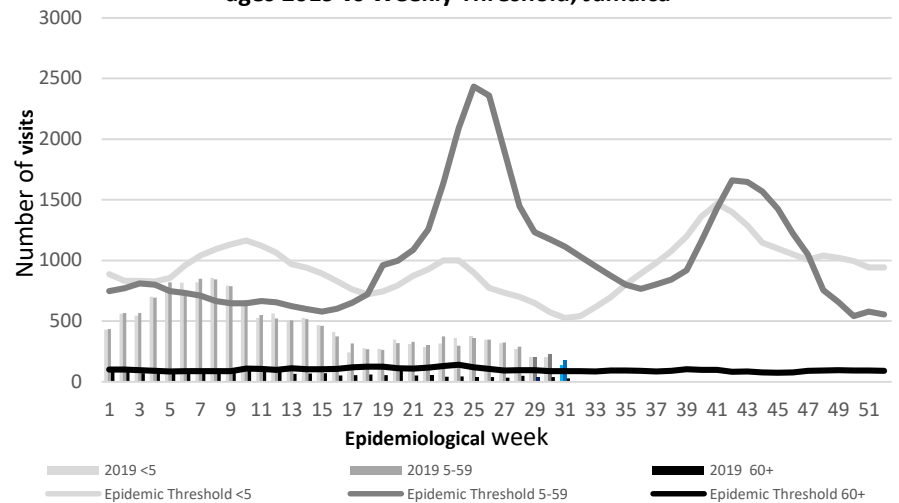
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# EW 31

July 28 – August 3, 2019 Epidemiological Week 31

	EW 31	YTD
SARI cases	4	349
<b>Total Influenza positive Samples</b>	<b>2</b>	<b>363</b>
<b>Influenza A</b>	<b>2</b>	<b>321</b>
H3N2	0	86
H1N1pdm09	0	225
Not subtyped	2	7
<b>Influenza B</b>	<b>0</b>	<b>42</b>
<b>Parainfluenza</b>	<b>0</b>	<b>5</b>

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

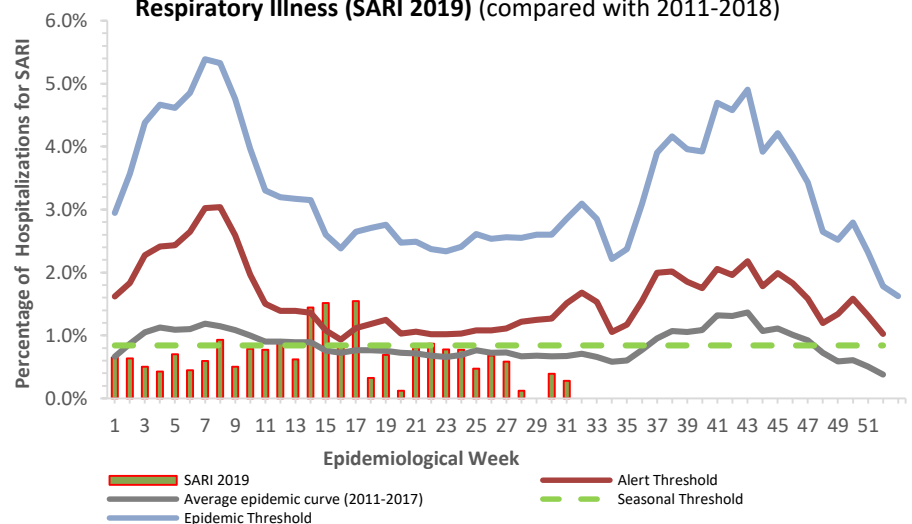


## Epi Week Summary

During EW 31, 2 cases of influenza were detected. Percent positivity remained low.

During EW 31, 4 SARI admissions were reported.

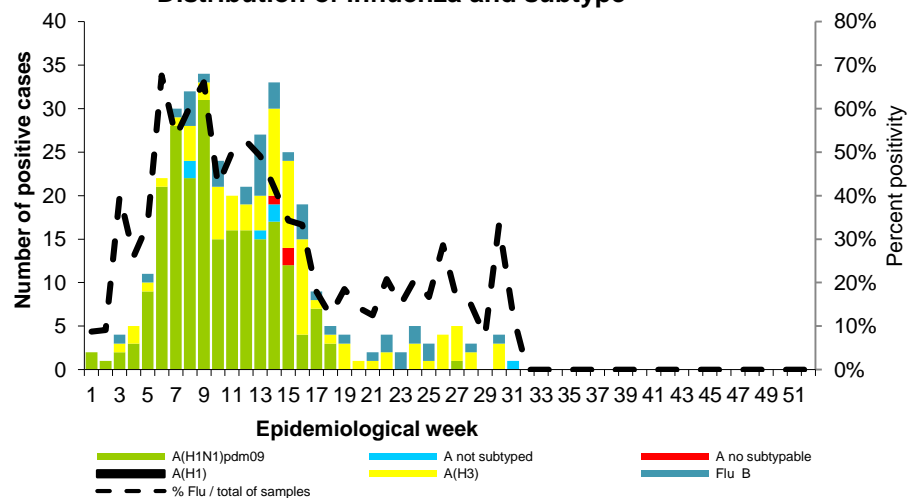
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2019) (compared with 2011-2018)



## Regional Update EW31

Caribbean: Influenza and SARI activity were low and continued to decrease in the sub-region, except in Cuba and Jamaica where influenza A(H1N1)pdm09 virus activity was at moderate levels but SARI activity continued at a low level. RSV activity was increased in Cuba.

Distribution of influenza and subtype



6 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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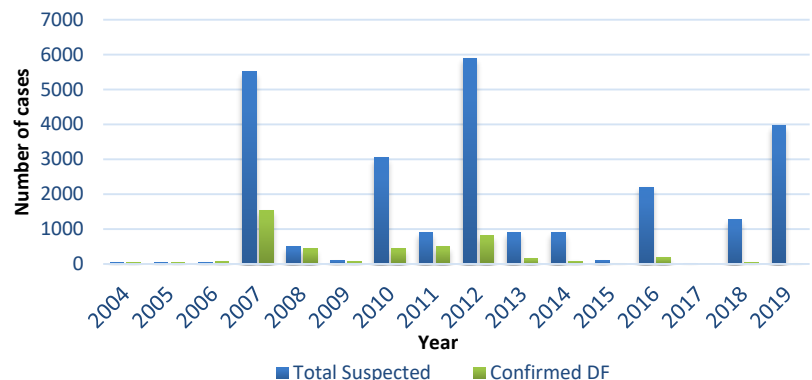
# Dengue Bulletin

July 29 – August 3, 2019 Epidemiological Week 31

Epidemiological Week 31



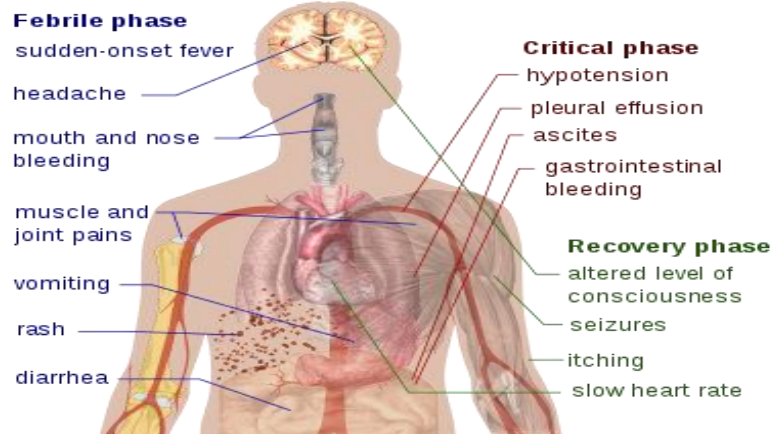
Dengue Cases by Year: 2004-2019, Jamaica



## Reported suspected and confirmed dengue with symptom onset in weeks 1-31, 2019

		2019		2018 YTD
		EW 31	YTD	
Total Suspected Dengue Cases		8	3977	169
Lab Confirmed Dengue cases		0	29	1
CONFIRMED	Dengue Related Deaths	0	5	0

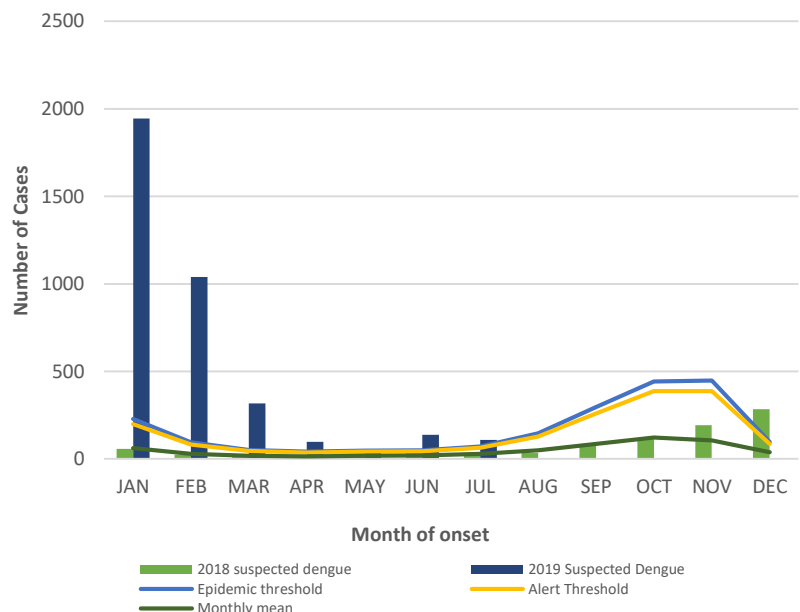
## Symptoms of Dengue fever



## Points to note:

- 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  
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Automatic reporting

# RESEARCH PAPER

## Patient Satisfaction with Nurse Practitioner delivered Services at two Health Centres in Kingston and St. Andrew

*K Jones, JLM Lindo, P Anderson Johnson*

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

**Objective:** To explore the level of patient satisfaction with nurse practitioner delivered services in two health centres in Kingston and St. Andrew.

**Method:** A cross sectional survey of 120 adult clients ( $\geq 18$  years old) seen by the nurse practitioner at a Type 3 and a Type 5 health centre in Kingston and St. Andrew was conducted utilizing a self administered questionnaire. The data collection instrument included a modified Nurse Practitioner Satisfaction Survey. Data were analyzed using the SPSS® version 18 for Windows®.

**Results:** Of 120 participants, 77.2% were females with an average age of  $40 \pm 16$  years. Most (63.3%) were from the Type 5 health centre. The mean general satisfaction score was 80.88 out of a possible 90 and 83.3% of the respondents reported they were very satisfied and 16.6% were satisfied with the nurse practitioner services at both facilities. There was no significant difference between the mean satisfaction scores among males ( $80.41 \pm 6.5$ ) and females ( $80.95 \pm 8.3$ ) and respondents from the Type 3 ( $81.09 \pm 9.18$ ) and Type 5 ( $81.76 \pm 7.1$ ) health centre. No respondent was dissatisfied. The mean satisfaction score was significantly higher among respondents 40 years and older than that of their younger counterparts ( $p=0.032$ ). Socio-demographic and organization characteristics were not associated with the mean satisfaction score.

**Conclusions:** A high level of satisfaction exists among patients seen by the nurse practitioner in the two facilities in Kingston and St Andrew. Nurse practitioners may play an expanded role in the delivery of primary healthcare.



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8 NOTIFICATIONS-  
All clinical  
sites



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