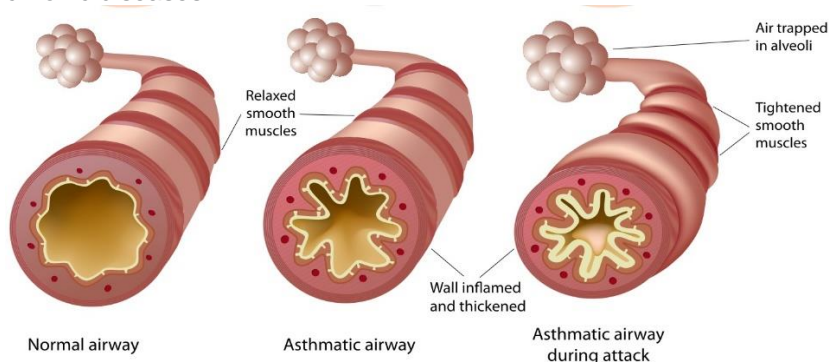


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## ASTHMA

Asthma is a major noncommunicable disease characterized by recurrent attacks of breathlessness and wheezing, which vary in severity and frequency from person to person. Symptoms may occur several times in a day or week in affected individuals, and for some people become worse during physical activity or at night. During an asthma attack, the lining of the bronchial tubes swell, causing the airways to narrow and reducing the flow of air into and out of the lungs. Recurrent asthma symptoms frequently cause sleeplessness, daytime fatigue, reduced activity levels and school and work absenteeism. Asthma has a relatively low fatality rate compared to other chronic diseases.



### Key facts

- Asthma is one of the major noncommunicable diseases. It is a chronic disease of the the air passages of the lungs which inflames and narrows them.
- Some 235 million people currently suffer from asthma. It is a common disease among children.
- Most asthma-related deaths occur in low- and lower-middle income countries.
- According to the latest WHO estimates, released in December 2016, there were 383 000 deaths due to asthma in 2015.
- The strongest risk factors for developing asthma are inhaled substances and particles that may provoke allergic reactions or irritate the airways.
- Medication can control asthma. Avoiding asthma triggers can also reduce the severity of asthma.
- Appropriate management of asthma can enable people to enjoy a good quality of life.

### The causes

The fundamental causes of asthma are not completely understood. The strongest risk factors for developing asthma are a combination of genetic predisposition with environmental exposure to inhaled substances and particles that may provoke allergic reactions or irritate the airways, such as:

- indoor allergens (for example, house dust mites in bedding, carpets and stuffed furniture, pollution and pet dander)
- outdoor allergens (such as pollens and moulds)
- tobacco smoke
- chemical irritants in the workplace
- air pollution.

Other triggers can include cold air, extreme emotional arousal such as anger or fear, and physical exercise. Even certain medications can trigger asthma: aspirin and other non-steroid anti-inflammatory drugs, and beta-blockers (which are used to treat high blood pressure, heart conditions and migraine). Urbanization has been associated with an increase in asthma. But the exact nature of this relationship is unclear.

Source: <https://www.who.int/news-room/fact-sheets/detail/asthma>

## EPI WEEK 39



### SYNDROMES

PAGE 2



### CLASS 1 DISEASES

PAGE 4



### INFLUENZA

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### DENGUE FEVER

PAGE 6



### GASTROENTERITIS

PAGE 7



### RESEARCH PAPER

PAGE 8

## Sentinel Surveillance in Jamaica



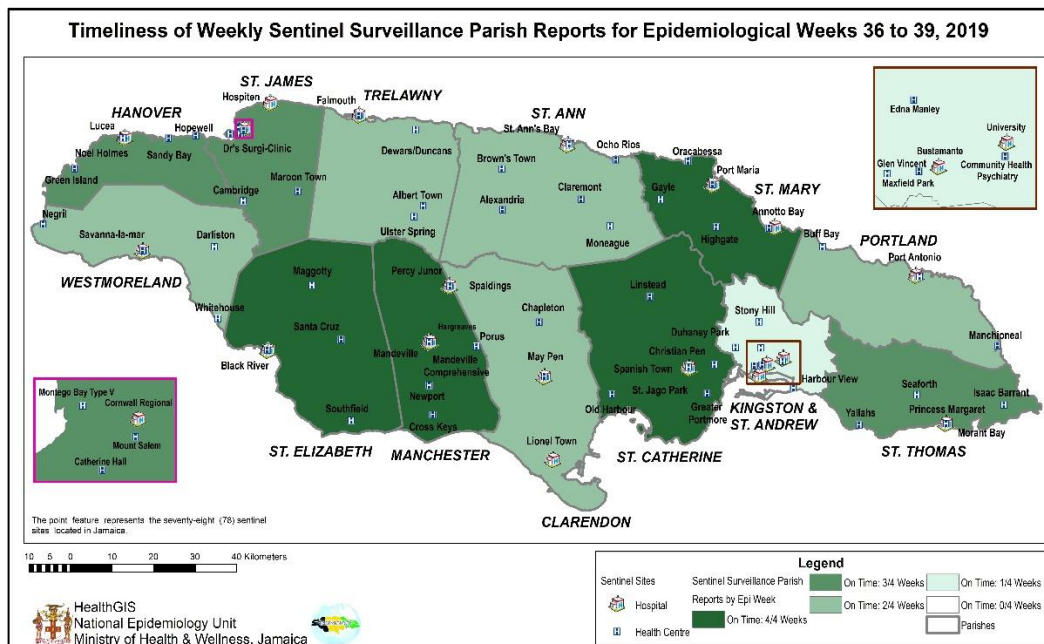
A syndromic surveillance system is good for early detection of and response to public health events.

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 35 to 38

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

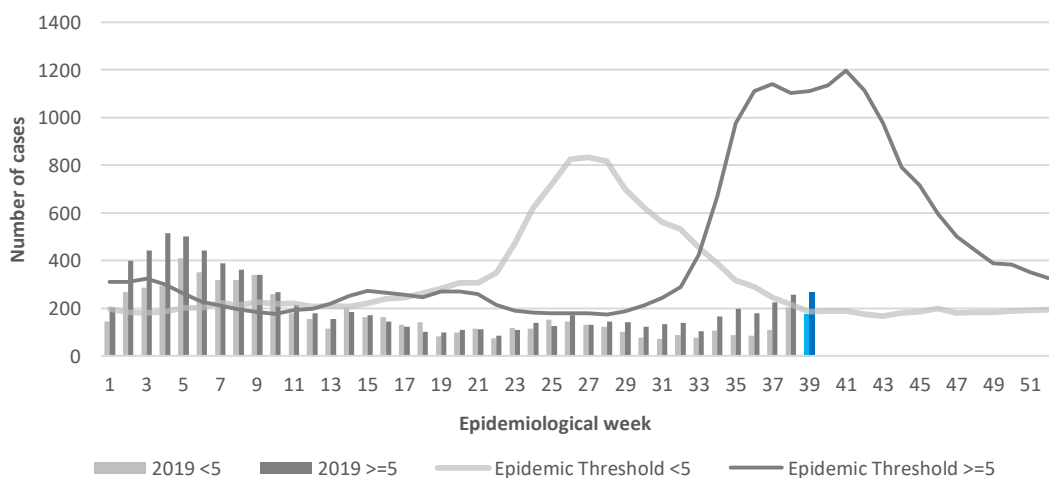
### FEVER

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



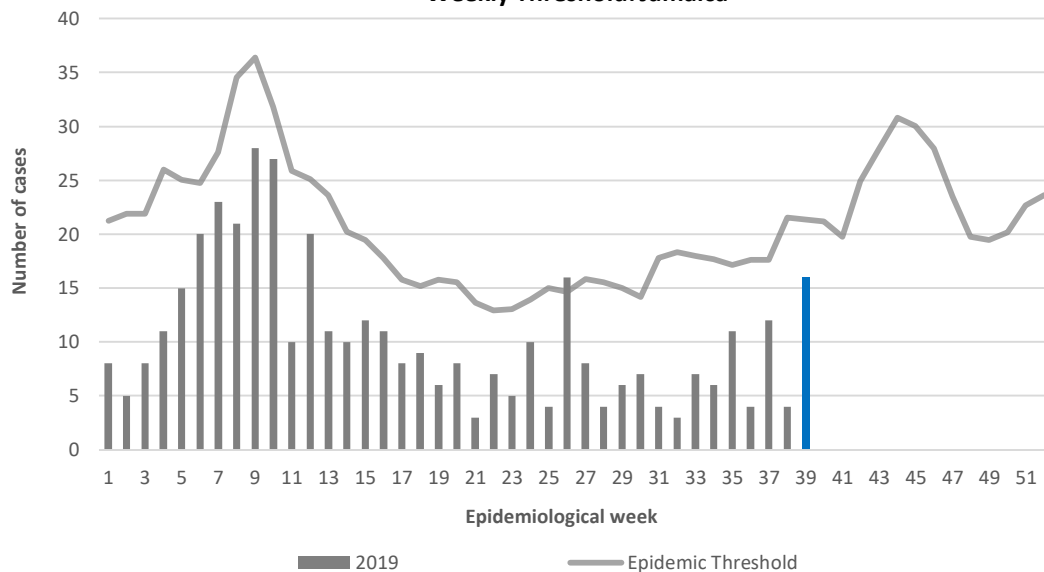
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

**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).



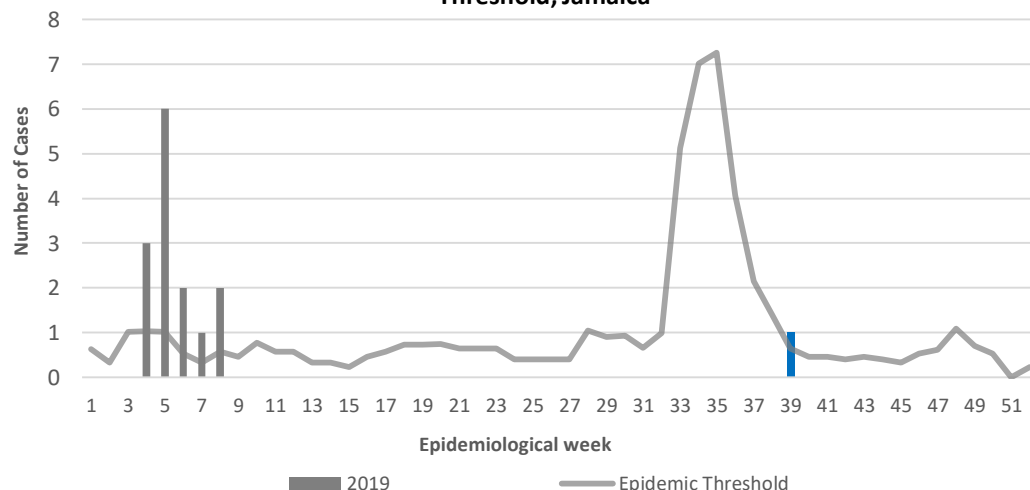
**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs. Weekly Threshold: Jamaica**

**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 only, year to date.



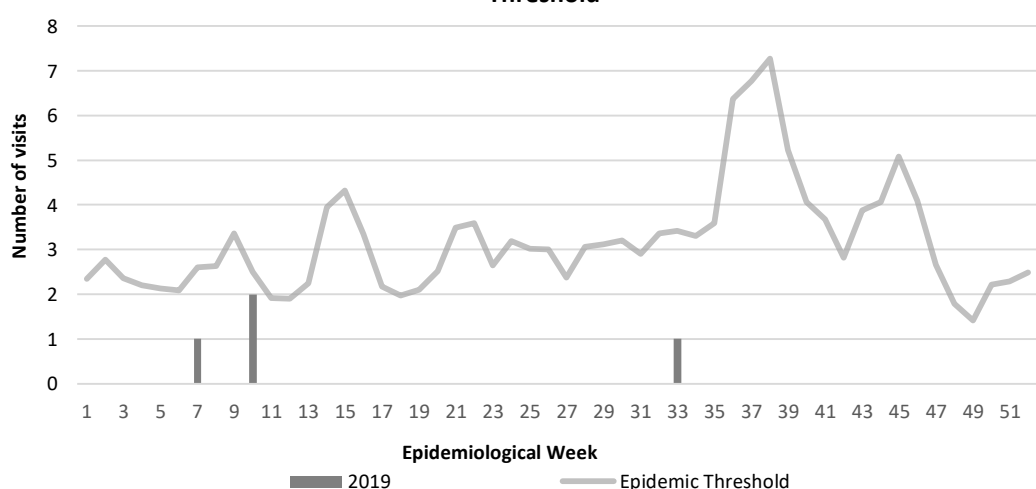
**Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2019 vs Weekly Threshold; Jamaica**

**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 and 10 only, year to date.

**Weekly Visits to Sentinel Sites for Fever and Jaundice 2019 vs. Weekly Threshold**



**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**

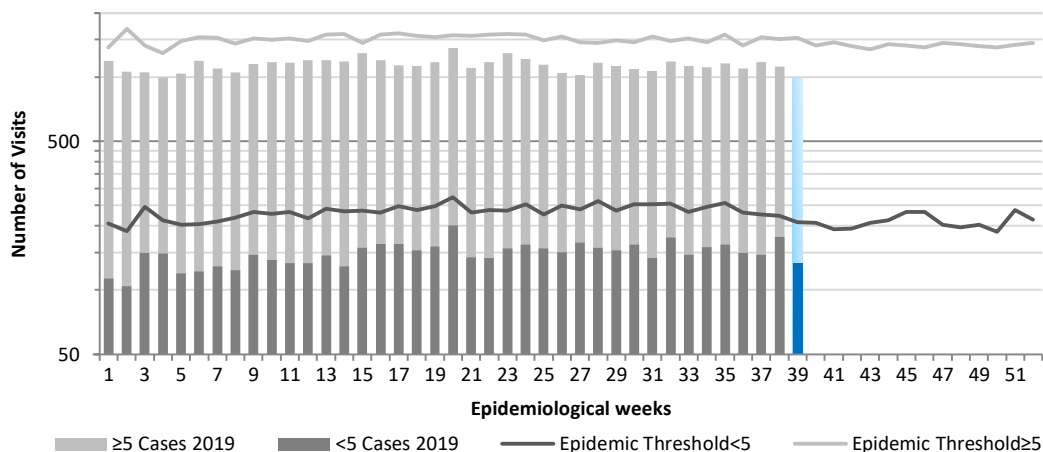
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

VARIATIONS OF **BLUE** SHOW CURRENT WEEK



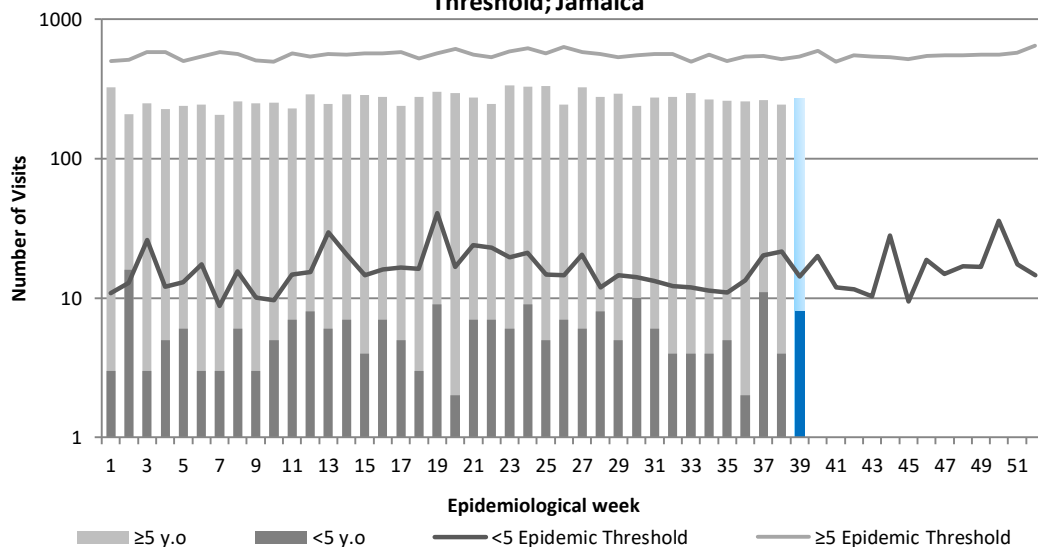
**Weekly visits to Sentinel Sites for Accidents by Age Group 2019 vs Weekly Threshold; Jamaica**

**VIOLENCE**

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



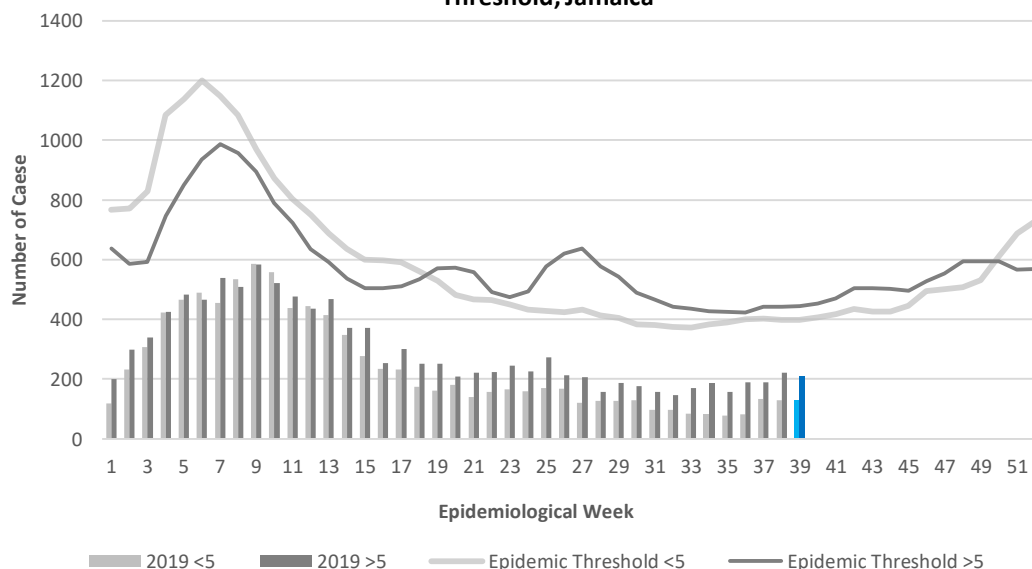
**Weekly visits to Sentinel Sites for Violence by Age Group 2019 vs Weekly Threshold; Jamaica**

**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  |               |   |    |
|                                  | CLASS 1 EVENTS                    | CURRENT YEAR   | PREVIOUS YEAR |   |    |
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning              | 57             | 167           | 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                       | 11             | 34            |   |    |
|                                  | Hepatitis C                       | 2              | 6             |   |    |
|                                  | HIV/AIDS                          | NA             | NA            |   |    |
|                                  | Malaria (Imported)                | 0              | 2             |   |    |
|                                  | Meningitis (Clinically confirmed) | 20             | 37            |   |    |
| EXOTIC/ UNUSUAL                  | Plague                            | 0              | 0             | * Dengue Hemorrhagic Fever data include Dengue related deaths;  |    |
| 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             | ** Figures include all deaths associated with pregnancy reported for the period.<br><br>*** CHIKV IgM positive cases<br><br>**** Zika PCR positive cases |    |
|                                  | Congenital Rubella Syndrome       | 0              | 0             |   |    |
|                                  | Congenital Syphilis               | 0              | 0             |   |    |
|                                  | Fever and Rash                    | Measles        | 0             |   | 0  |
|                                  |                                   | Rubella        | 0             |   | 0  |
|                                  | Maternal Deaths**                 | 49             | 49            |   |    |
|                                  | Ophthalmia Neonatorum             | 161            | 234           |   |    |
|                                  | Pertussis-like syndrome           | 0              | 0             |   |    |
|                                  | Rheumatic Fever                   | 0              | 0             |   |    |
|                                  | Tetanus                           | 0              | 0             |   |    |
|                                  | Tuberculosis                      | 44             | 60            |   |    |
|                                  | Yellow Fever                      | 0              | 0             |   |    |
|                                  |                                   | Chikungunya*** | 2             |   | 10 |
|                                  | Zika Virus****                    | 0              | 0             | NA- Not Available   |    |



5 NOTIFICATIONS-  
All clinical sites



INVESTIGATION  
REPORTS- Detailed Follow up for all Class One Events



HOSPITAL  
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SURVEILLANCE-  
30 sites. Actively pursued



SENTINEL  
REPORT- 78 sites.  
Automatic reporting



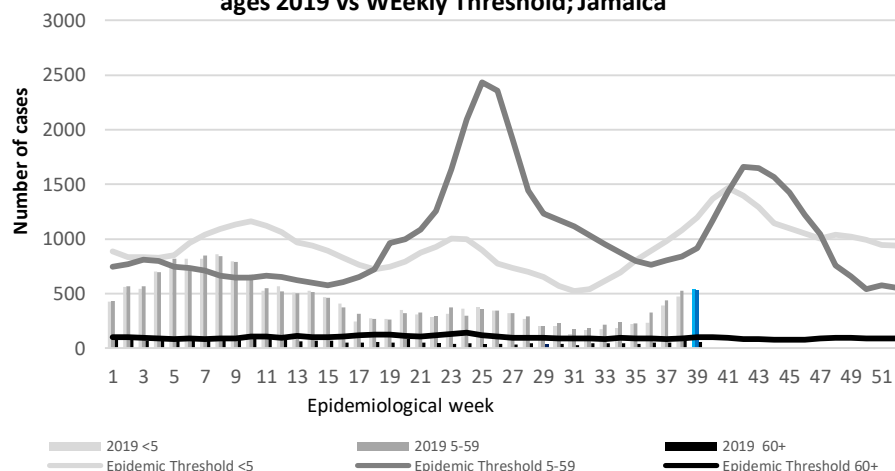
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 39

September 22 – September 28, 2019 Epidemiological Week 39

|                                  | EW 39 | YTD |
|----------------------------------|-------|-----|
| SARI cases                       | 10    | 388 |
| Total Influenza positive Samples | 0     | 372 |
| Influenza A                      | 0     | 330 |
| H3N2                             | 0     | 96  |
| H1N1pdm09                        | 0     | 226 |
| Not subtyped                     | 0     | 5   |
| Influenza B                      | 0     | 42  |
| Parainfluenza                    | 0     | 6   |

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

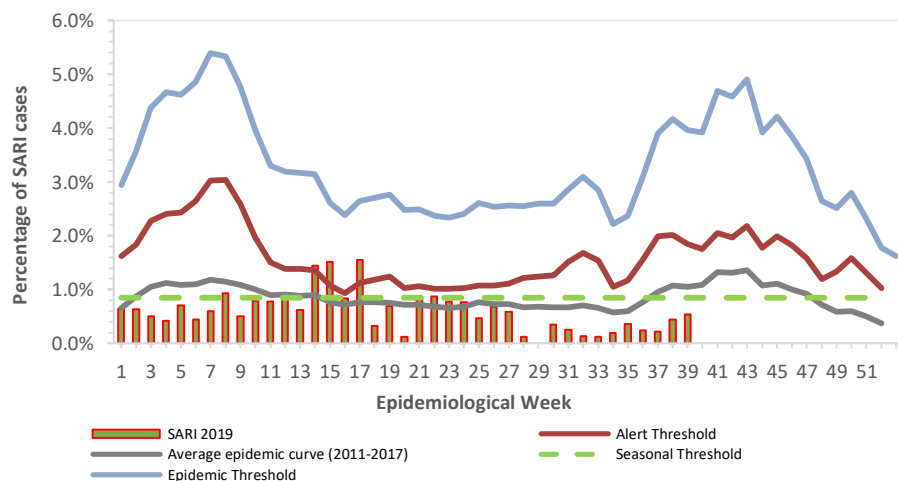


### Epi Week Summary

During EW 39, 0 cases of influenza were detected. Percent positivity is 0 and is low for other respiratory viruses.

During EW 39, 10 (ten) SARI admissions were reported.

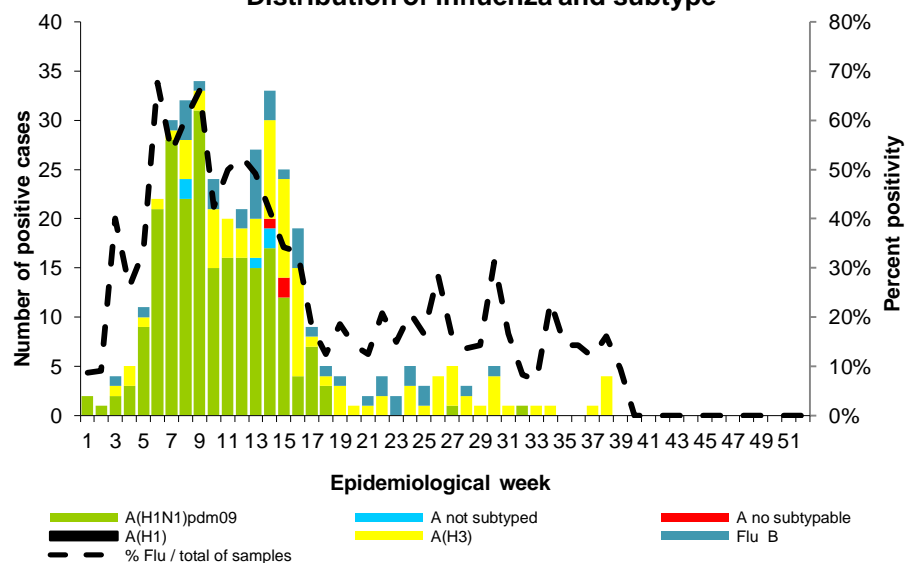
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2019) (compared with 2011-2018)



### Caribbean Update EW 39

Influenza and SARI activity were low and continue to decrease in the sub-region. In Puerto Rico, influenza-positive cases were slightly above the historical average, with influenza A(H3N2) predominance..

Distribution of influenza and subtype



6 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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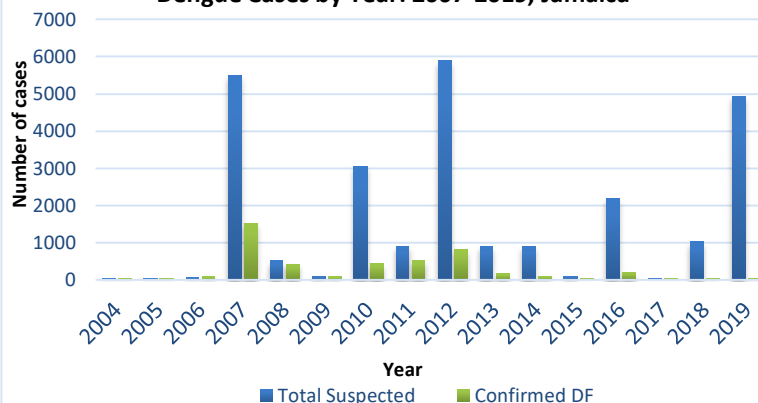
# Dengue Bulletin

September 22– September 28, 2019 Epidemiological Week 39

Epidemiological Week 39



Dengue Cases by Year: 2007-2019, Jamaica



## Reported suspected and confirmed dengue with symptom onset in weeks 1-39 2019

|                              |                       | 2019  |        | 2018 YTD |
|------------------------------|-----------------------|-------|--------|----------|
|                              |                       | EW 39 | YTD    |          |
| Total Suspected Dengue Cases |                       | 14    | **4937 | 282      |
| Lab Confirmed Dengue cases   |                       | 0     | 40     | 0        |
| CONFIRMED                    | Dengue Related Deaths | 0     | 10     | 0        |

## Symptoms of Dengue fever

### Febrile phase

sudden-onset fever

headache

mouth and nose bleeding

muscle and joint pains

vomiting

rash

diarrhea

### Critical phase

hypotension

pleural effusion

ascites

gastrointestinal bleeding

### Recovery phase

altered level of consciousness

seizures

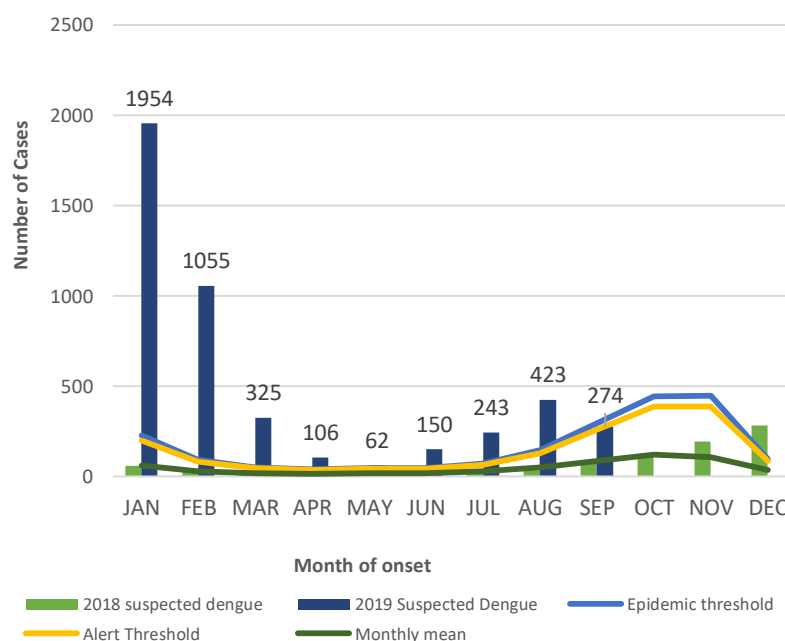
itching

slow heart rate

## Points to note:

- \*\*figure as at October 4, 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



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# RESEARCH PAPER

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## ABSTRACT

### Health Literacy Profile of Older Adults in Jamaica: A Preliminary Study

*Author: Heather F. Fletcher PhD, RN (Northern Caribbean University)*

**Objective:** To generate health literacy (ability to obtain, process, understand and use health information) profile data for older adults in Jamaica with the newly-developed Health Literacy Questionnaire (HLQ)

**Method:** Cross-sectional and correlational design; multistage sampling of 200 community-dwelling elders 60 years and older completed the survey.

**Results:** More females (53%) than males with mean age 74 years and 76% primary level education. Highest scores (HLQ) were ability to actively engage with healthcare providers and social support to aid with health literacy needs while processing information had lowest score. On average, respondents found it difficult to gather relevant health information. Married respondents more likely to have better support from healthcare providers ( $p = .01$ ), demonstrate mastery of the healthcare system ( $p = .02$ ) and possess more health knowledge ( $p = .02$ ) with better reading and comprehension skills ( $p = .03$ ). Use of health information, showed one is less likely to have poor health ( $r = -.172, p < .05$ ).

**Conclusion:** Although most had only primary level education, the respondents' ability to engage the healthcare provider is remarkable showing our strong oral culture complemented by social support. Screening for cognitive deficits should be included in health visits. Policymakers could add health literacy to the health agenda and make health information more age- friendly to empower older adults to achieve their fullest potential.



8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
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9 NOTIFICATIONS-  
All clinical  
sites



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