

# WEEKLY EPIDEMIOLOGY BULLETIN

## NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

### *Neonatal Deaths*

#### Who is most at risk?

Globally 2.5 million children died in the first month of life in 2017. There are approximately 7 000 newborn deaths every day, amounting to 47% of all child deaths under the age of 5-years, up from 40% in 1990. About the same number of babies were born stillbirth (in 2015).

#### Causes

The majority of all neonatal deaths occurs during the first week of life, and about 1 million newborns die within the first 24 hours. Preterm birth, birth asphyxia or lack of breathing at birth complications, infections and birth defects cause most neonatal deaths in 2016. Malnutrition is the underlying contributing factor, making children more vulnerable to severe diseases.

#### Priority Strategies

The vast majority of newborn deaths takes place in low and middle-income countries. It is possible to improve survival and health of newborns and end preventable stillbirths by reaching high coverage of quality antenatal care, skilled care at birth, postnatal care for mother and baby, and care of small and sick newborns. With the increase in facility births, there is a great opportunity for providing essential newborn care and identifying and managing high risk newborns

#### Essential newborn care

All babies should receive the following:

promoting skin-to-skin contact between mother and infant, hygienic umbilical cord and skin care; early and exclusive breastfeeding;

assessment for signs of serious health problems or need of additional care. Families should be advised to seek prompt medical care if necessary; bring the baby for timely vaccination according to national schedules. Some newborns require additional attention and care during hospitalization and at home to minimize their health risks.

#### Low-birth-weight and preterm babies:

If a low-birth weight newborn is identified at home, the family should be helped in locating a hospital or facility to care for the baby.

increased attention to keeping the newborn warm, including skin-to-skin care, unless there are medically justifiable reasons for delayed contact with the mother; assistance with initiation of breastfeeding, such as helping the mother express breast milk for feeding the baby from a cup or other means if necessary; extra attention to hygiene, especially hand washing; extra attention to danger signs and the need for care; and additional support for breastfeeding and monitoring growth.

#### Sick newborns

Danger signs should be identified as soon as possible in health facilities or at home and the baby referred to the appropriate service for further diagnosis and care;

If a sick newborn is identified at home, the family should be helped in locating a hospital or facility to care for the baby.

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

## EPI WEEK 10

### SYNDROMES

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### CLASS 1 DISEASES

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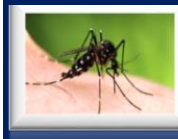
### INFLUENZA

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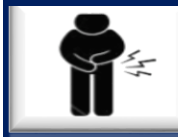
### DENGUE FEVER

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### GASTROENTERITIS

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### RESEARCH PAPER

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# REPORTS FOR SYNDROMIC SURVEILLANCE

## FEVER

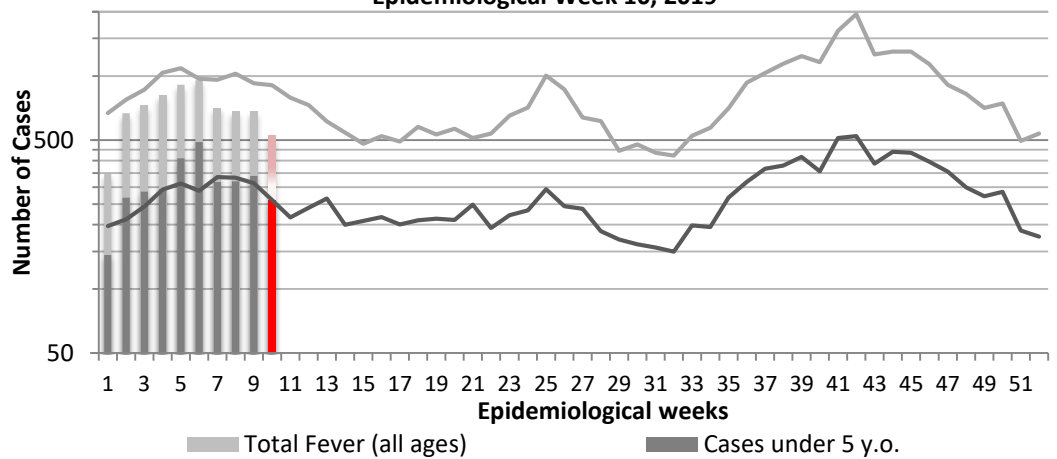
Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**KEY**

**RED CURRENT WEEK**

Fever in Under 5y.o. and Total Fever vs Epidemic Thresholds, Jamaica  
Epidemiological Week 10, 2019

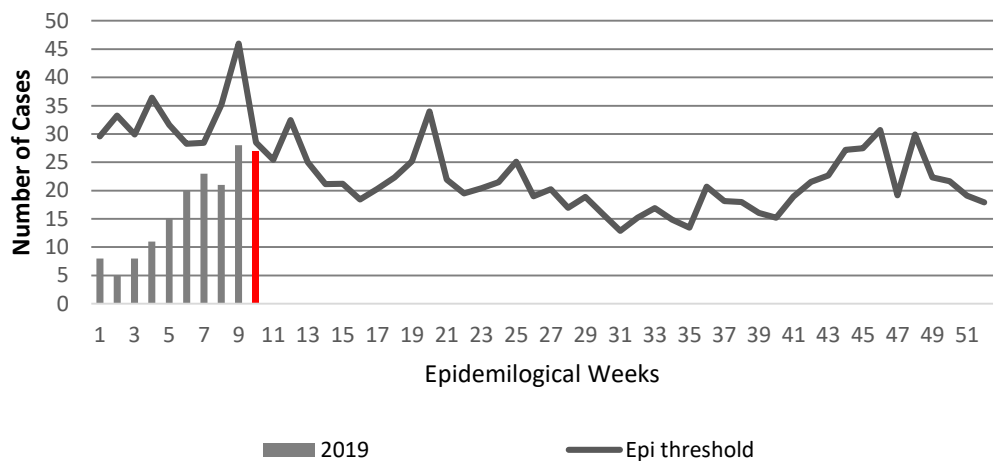


## FEVER AND NEUROLOGICAL

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).



Total Fever and Neurological Symptoms vs Epidemic Threshold Jamaica: Week 10, 2019

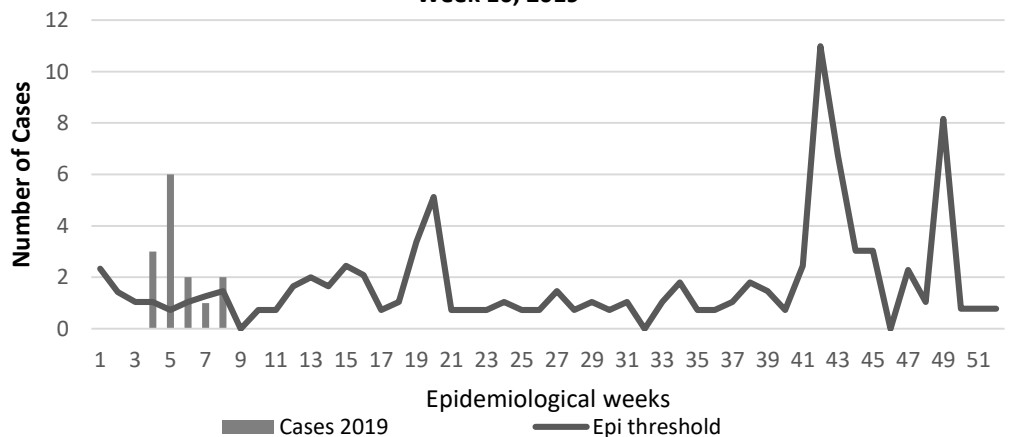


## FEVER AND HAEMORRHAGIC

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.



Total Fever and Haemorrhagic Symptoms vs Epidemic Threshold Jamaica: Week 10, 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

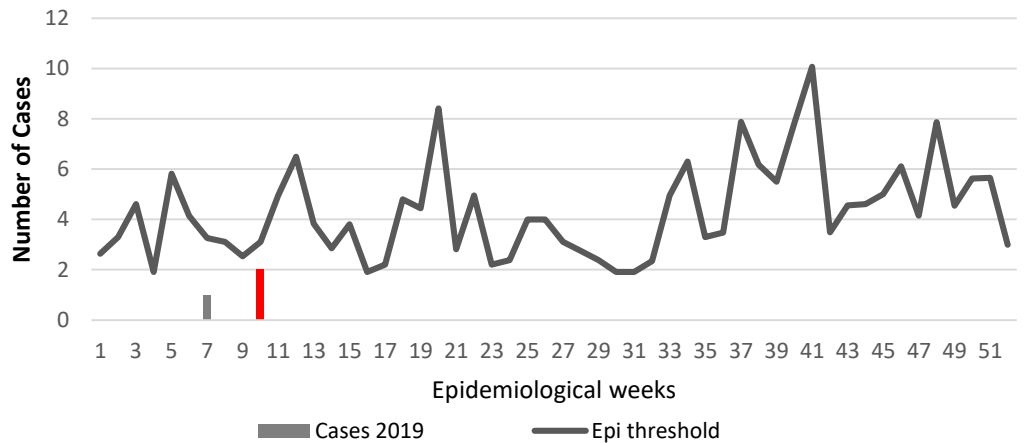
### FEVER AND JAUNDICE

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.



Total Fever and Jaundice vs Epidemic Threshold, Jamaica: Week 10, 2019



### ACCIDENTS

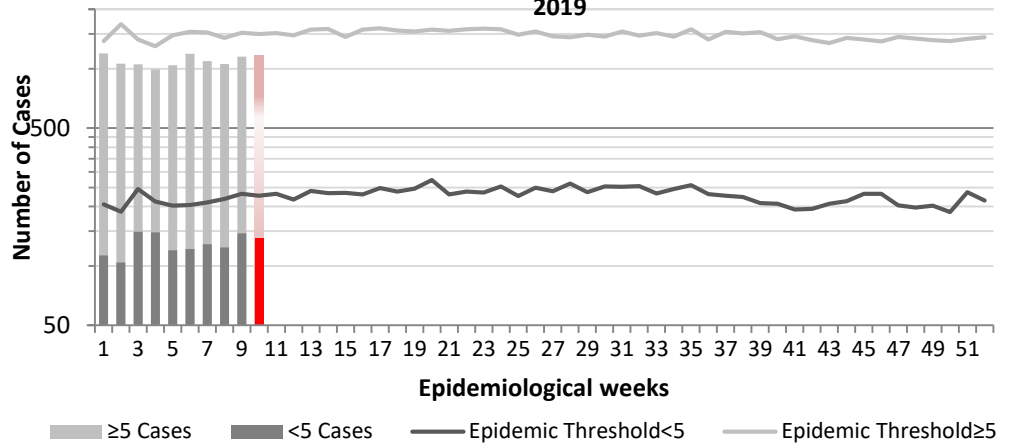
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

**RED CURRENT WEEK**



Accidents by Age Group Versus Epidemic Thresholds, Jamaica: Week 10, 2019

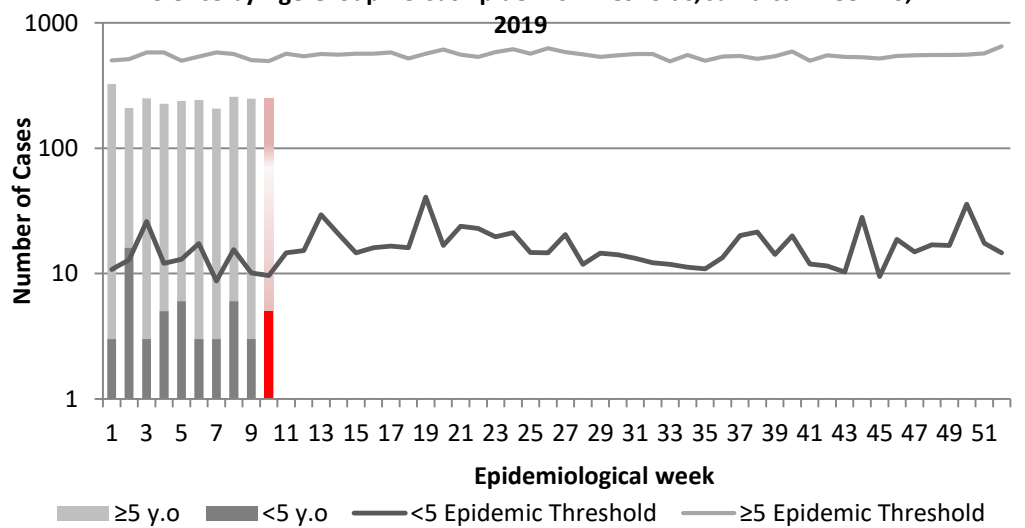


### VIOLENCE

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



Violence by Age Group Versus Epidemic Thresholds, Jamaica: Week 10, 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

## CLASS ONE NOTIFIABLE EVENTS

## Comments

|                                  | CLASS 1 EVENTS                        | CONFIRMED YTD |               | Comments  |   |
|----------------------------------|---------------------------------------|---------------|---------------|---|---|
|                                  |                                       | CURRENT YEAR  | PREVIOUS YEAR |   |   |
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning <sup>1</sup>     | 6             | 23            | 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.<br><br>Pertussis-like syndrome and Tetanus are clinically confirmed classifications.   |   |
|                                  | Cholera                               | 0             | 0             |   |   |
|                                  | Dengue Hemorrhagic Fever <sup>2</sup> | 0             | 0             |   |   |
|                                  | Hansen's Disease (Leprosy)            | 0             | 0             |   |   |
|                                  | Hepatitis B                           | 1             | 4             |   |   |
|                                  | Hepatitis C                           | 1             | 0             |   |   |
|                                  | HIV/AIDS                              | NA            | NA            |   |   |
|                                  | Malaria (Imported)                    | 0             | 0             |   |   |
|                                  | Meningitis (Clinically confirmed)     | 1             | 10            |   |   |
| EXOTIC/ UNUSUAL                  | Plague                                | 0             | 0             | <sup>1</sup> Numbers in brackets indicate combined suspected and confirmed Accidental Poisoning cases<br><sup>2</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;<br><sup>3</sup> Figures include all deaths associated with pregnancy reported for the period.<br><sup>4</sup> CHIKV IgM positive cases<br><sup>5</sup> 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             |   | 0 |
|                                  |                                       | Rubella       | 0             |   | 0 |
|                                  | Maternal Deaths <sup>3</sup>          | 9             | 16            |   |   |
|                                  | Ophthalmia Neonatorum                 | 53            | 67            |   |   |
|                                  | Pertussis-like syndrome               | 0             | 0             |   |   |
|                                  | Rheumatic Fever                       | 0             | 0             |   |   |
|                                  | Tetanus                               | 0             | 0             |   |   |
|                                  | Tuberculosis                          | 5             | 6             |   |   |
| Yellow Fever                     | 0                                     | 0             |               |   |   |
|                                  | Chikungunya <sup>4</sup>              | 0             | 0             |   |   |
|                                  | Zika Virus <sup>5</sup>               | 0             | 0             | NA- Not Available   |   |



4 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



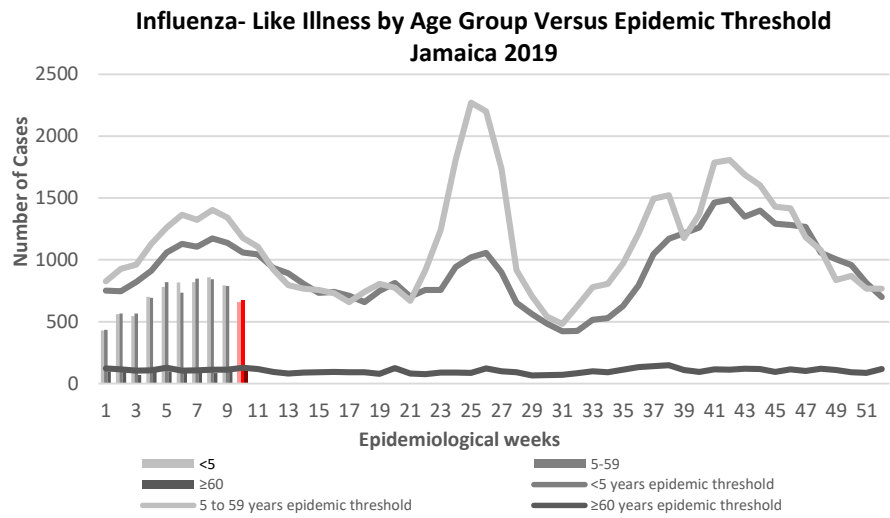
SENTINEL REPORT- 78 sites. Automatic reporting

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 10

March 3-9, 2019 Epidemiological Week 10

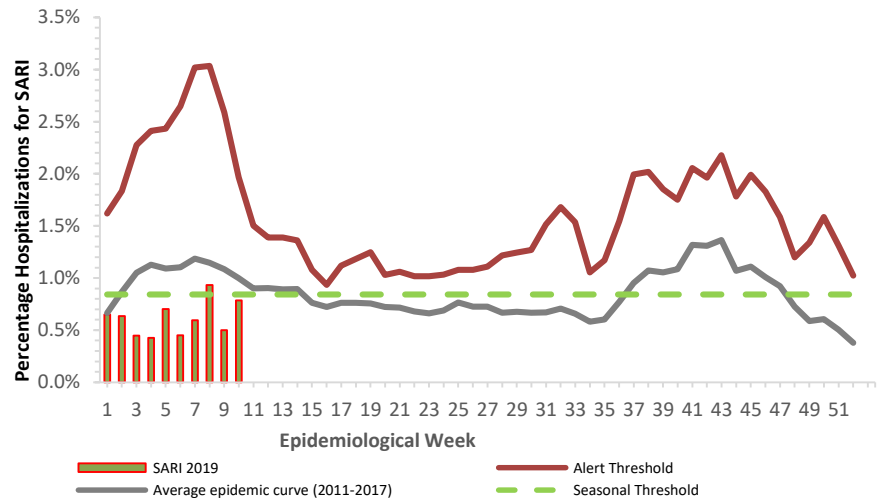
| February 2019                           |          |           |
|---|----------|-----------|
|   | EW 10    | YTD       |
| SARI cases                              | 14       | 111       |
| <b>Total Influenza positive Samples</b> | <b>3</b> | <b>78</b> |
| <b>Influenza A</b>                      | <b>3</b> | <b>75</b> |
| H3N2                                    | 0        | 6         |
| H1N1pdm09                               | 0        | 51        |
| Not subtyped                            | 3        | 18        |
| <b>Influenza B</b>                      | <b>0</b> | <b>3</b>  |
| <b>Parainfluenza</b>                    | <b>0</b> | <b>1</b>  |



**Comments:**

During EW 10, Influenza detections decreased when compared with previous weeks, with influenza A predominating and fell below the alert threshold.

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

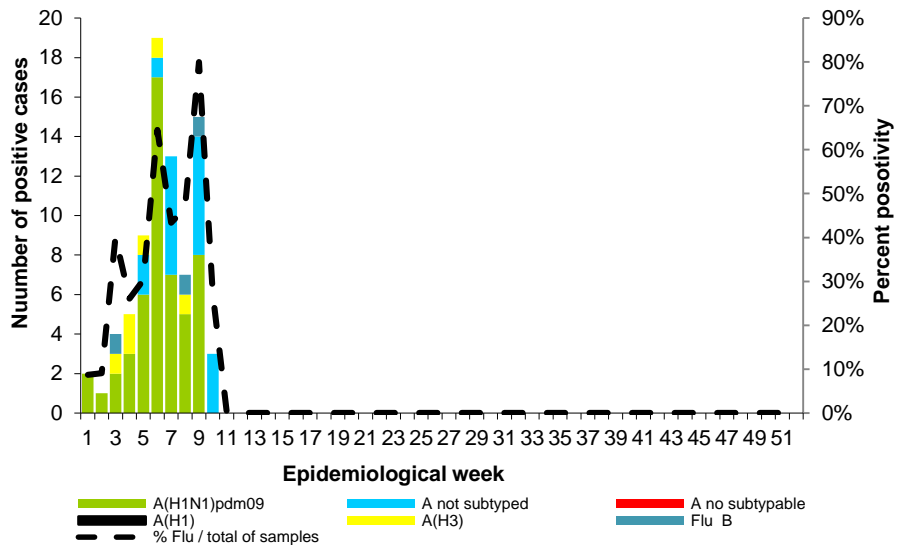


### GLOBAL AND REGIONAL UPDATES

**Worldwide:** Seasonal influenza subtype A accounted for the majority of influenza detections.

**Caribbean:** Influenza virus activity decreased throughout the sub-region. In Jamaica influenza detections increased with influenza A(H1N1)pdm09 predominance.

**Distribution of influenza and subtype**



**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

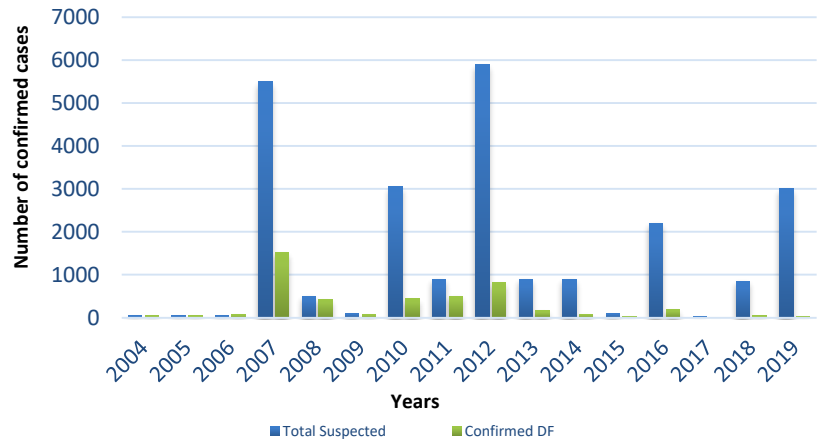
# Dengue Bulletin

March 3-9, 2019 Epidemiological Week 10

Epidemiological Week 10



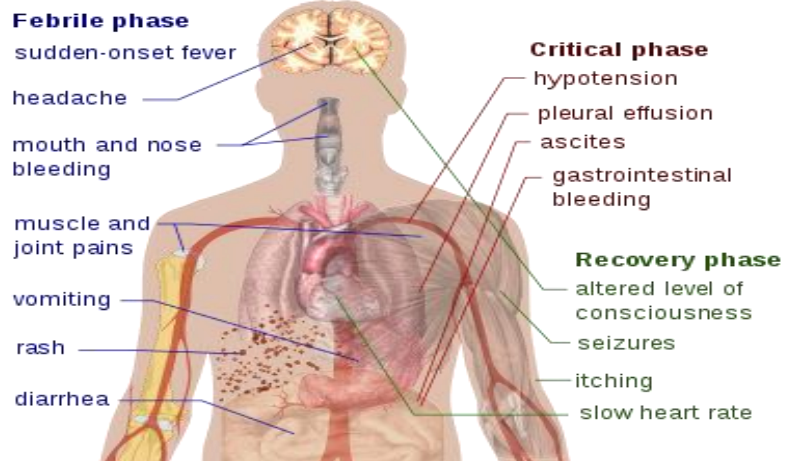
Dengue Cases by Year: 2004-2019, Jamaica



## Reported suspected and confirmed dengue with symptom onset in weeks 1-10, 2019

|                              |                       | 2019  |      | 2018 YTD |
|------------------------------|-----------------------|-------|------|----------|
|                              |                       | EW 10 | YTD  |          |
| Total Suspected Dengue Cases |                       | 116   | 3012 | 50       |
| Lab Confirmed Dengue cases   |                       | 0     | 16   | 0        |
| CONFIRMED                    | *DHF/DSS              | 0     | 0    | 0        |
|                              | Dengue Related Deaths | 0     | 2    | 0        |

## Symptoms of Dengue fever

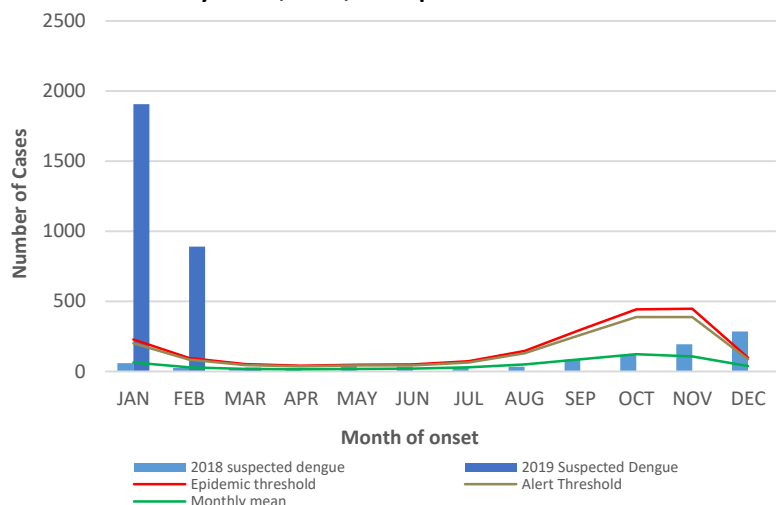


\*DHF/DSS: Dengue Haemorrhagic Fever/ Dengue Shock Syndrome

### 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



**6 NOTIFICATIONS-**  
All clinical sites



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

# Gastroenteritis Bulletin

**EW  
10**

March 3-9, 2019 Epidemiological Week 10

Epidemiological Week 10

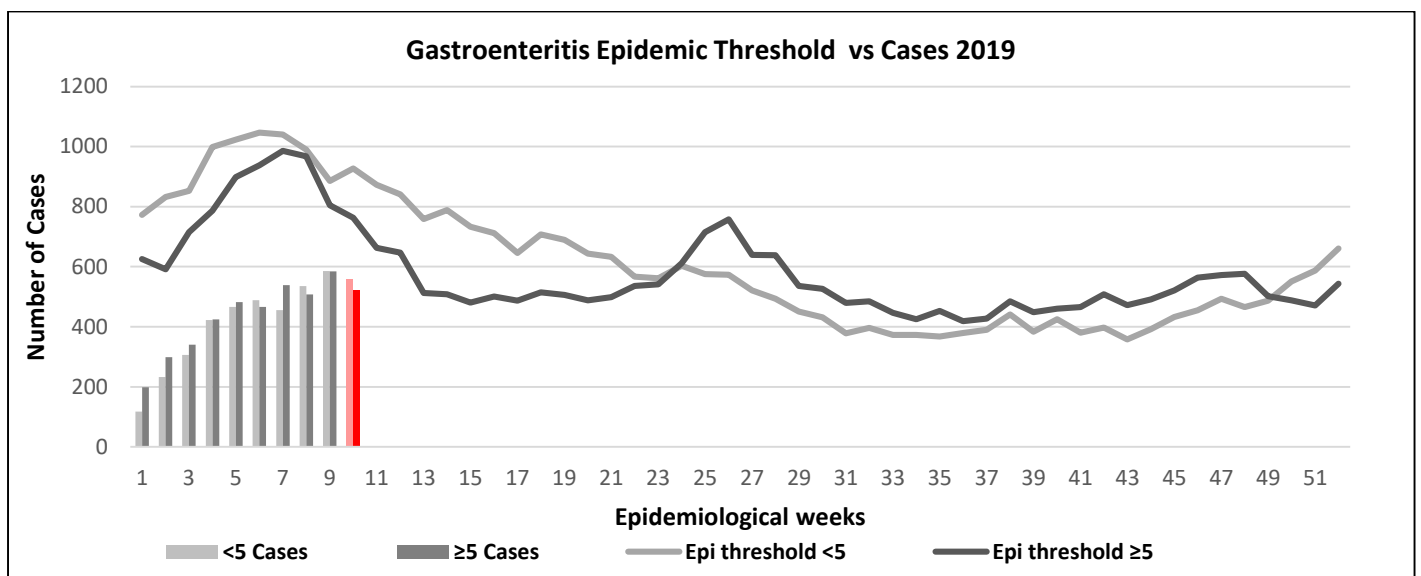
## Weekly Breakdown of Gastroenteritis cases

| Year        | EW 10 |     |       | YTD   |       |       |
|-------------|-------|-----|-------|-------|-------|-------|
|             | <5    | ≥5  | Total | <5    | ≥5    | Total |
| <b>2019</b> | 557   | 522 | 1,079 | 4,167 | 4,364 | 8,531 |
| <b>2018</b> | 172   | 236 | 408   | 2,012 | 2,704 | 4,716 |

### Gastroenteritis:

In epidemiological week 10, 2019, the total number of reported GE cases showed a 164% increase compared to EW 10 of the previous year. The year to date figures showed a 81% increase in cases for the period.

## Total Gastroenteritis Cases Reported, 2019



## Total number of GE cases per parish up to Week 10 , 2019

| Parishes | KSA  | STT | POR | STM | STA | TRE | STJ | HAN | WES | STE | MAN | CLA | STC |
|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <5       | 1759 | 108 | 46  | 186 | 305 | 240 | 342 | 55  | 149 | 117 | 443 | 180 | 237 |
| ≥5       | 1100 | 183 | 81  | 294 | 463 | 237 | 318 | 95  | 190 | 167 | 546 | 376 | 314 |



**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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**Title:** *A Review of the 1918 Influenza Pandemic - The Jamaica Experience*

**Authors:** *Iyanna Wellington, Ardene Harris, Nicolas Elias, Shara Williams, Kelly-Ann Gordon-Johnson, Nathlee McMorris, Neisha Vanhorne, Lesley-Ann James, Andriene Grant, Karen Webster-Kerr*

**Institution:** *National Epidemiology Unit, Ministry of Health, Jamaica*

**Corresponding Author / Presenter:** *Dr Iyanna Wellington at [wellingtoni@moh.gov.jm](mailto:wellingtoni@moh.gov.jm)*

## ABSTRACT

**Objective:** To describe the 1918 influenza pandemic in Jamaica and explore the socio-political and health-care contexts of the event.

**Methods:** Reviewed documents to obtain data on demographic parameters, hospital admissions for influenza, social conditions, and health system response.

**Results:** The Jamaican population in 1918 was 809,005 (384,319 males and 424,686 females). Health care was delivered by a network of: private practices, hospitals, infirmaries, and dispensaries.

The 1918 influenza pandemic started in January; the first recorded case of pandemic influenza in Jamaica occurred around October 1918 and by December the pandemic in Jamaica waned. In 1918/19 the proportion of influenza hospitalizations was 157 times greater than the mean for the preceding 10 years (1,412/10,000 versus 9/10,000). The influenza-specific death rate in 1918/19 was 3,288/10,000 in hospitalized patients while the maximum annual influenza-specific death rate in non-outbreak years was 80/10,000. The crude death rate declined by 32% from 1918/19 to 1919/20.

The First World War, local riots, food shortages, and recent hurricanes may have challenged the local authorities' reaction to the emergence of the pandemic in Jamaica. The response to the outbreak included: school closures, bans on public gatherings, disinfection of public transport, local travel bans, hiring of additional sanitary workers, opening of emergency hospitals and soup kitchens, health education, and policy changes.

**Conclusion:** The 1918 influenza outbreak in Jamaica was sudden and severe. The response to the 1918 influenza outbreak was affected by the socio-political realities of the day, which should be kept in mind for future pandemic preparedness planning.



8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
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30 sites. Actively  
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SENTINEL  
REPORT- 78 sites.  
Automatic reporting