

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Series : Animal bites 1 of 3

### Snake bites

#### Scope of the problem

Worldwide, up to five million people are bitten by snakes every year. Of these, poisonous (envenoming) snakes cause considerable morbidity and mortality. There are an estimated 2.4 million envenomations (poisonings from snake bites) and 94 000–125 000 deaths annually, with an additional 400 000 amputations and other severe health consequences, such as infection, tetanus, scarring, contractures, and psychological sequelae. Poor access to health care and scarcity of antivenom increases the severity of the injuries and their outcomes.



#### Key facts

- Animal bites are a significant cause of morbidity and mortality worldwide.
- Worldwide, up to five million people are bitten by snakes every year; the majority in Africa and South-East Asia.
- Prompt medical treatment with appropriate antivenom is required for poisonous snake bites.
- Dog bites account for tens of millions of injuries annually; the highest risk is among children.
- Rabies is a significant health concern following dog bites, cat bites and monkey bites.

#### Treatment

Approximately 600 species of snake are venomous and approximately 50-70% of bites by these cause envenomation. At the time of a bite, the cornerstone of care is complete immobilization of the affected body part and prompt transfer to a medical facility. Tourniquets and cutting wounds can worsen the effects of the venom and should not be used as first aid.

Frequently, victims of snake bites will require treatment with antivenom. It is important that the antivenom is appropriate for snakes endemic to the region. Additional measures include wound cleansing to decrease infection risk, supportive therapy such as airway support, and administration of tetanus vaccine upon discharge if the person has been inadequately vaccinated against tetanus.

#### Who is most at risk?

The majority of snake bites occur in Africa and South-East Asia. Snake bites are most common among people living in rural, resource-poor settings, who subsist on low-cost, non-mechanical farming and other field occupations. Agricultural workers, women and children are the groups most frequently bitten by snakes. Adding to the burden of these injuries is their socioeconomic impact on families and communities. Adult victims are often the wage earners or care providers of the family unit; and child victims can suffer lifelong disability intensifying demands on families and communities.

#### Prevention of snake bites and their serious health consequences

Prevention of snake bites involves informing communities about snake bite risks and prevention techniques, such as to:

- avoid tall grassy areas;
- wear protective shoes/boots;
- keep storage areas clear of rodents;
- remove rubbish, woodpiles and low brush from around the home;
- store food in rodent-proof containers, raise beds above floor level and tuck mosquito nets securely under sleeping mats within the home.



To prevent or limit the serious health consequences of snake bites, health-care providers should be educated on snake-bite management, including the proper use and administration of antivenom. Public health authorities and policy-makers should ensure appropriate supplies of safe and effective antivenoms to communities, countries and regions where they are most needed, and

prioritize research initiatives that will further determine the burden of these injuries.

## EPI WEEK 40

### 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



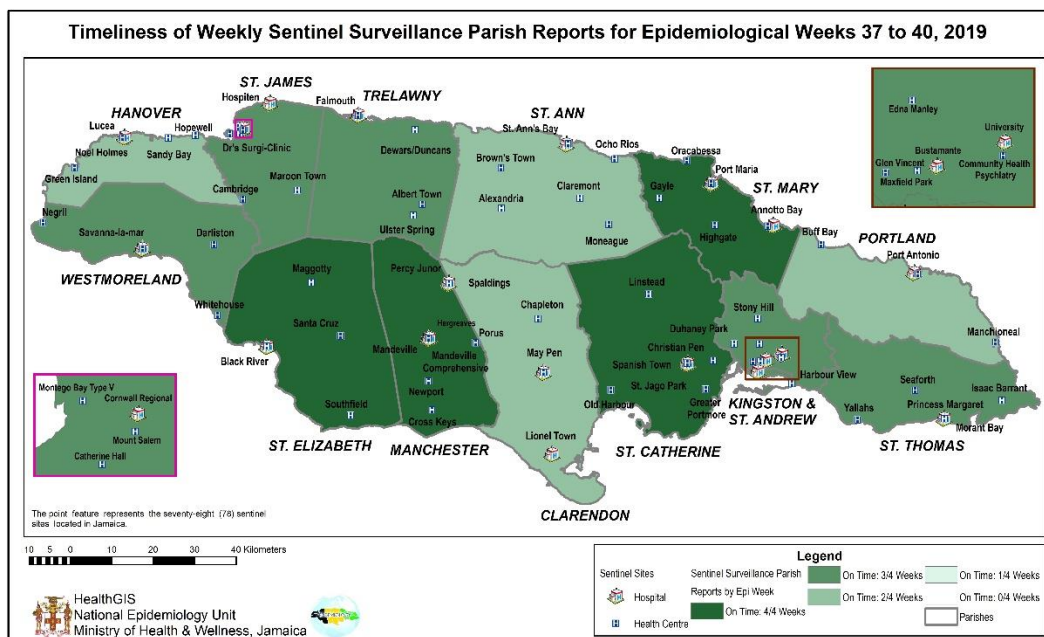
A syndromic surveillance system is good for early detection of and response to public health events.

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 37 to 40

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

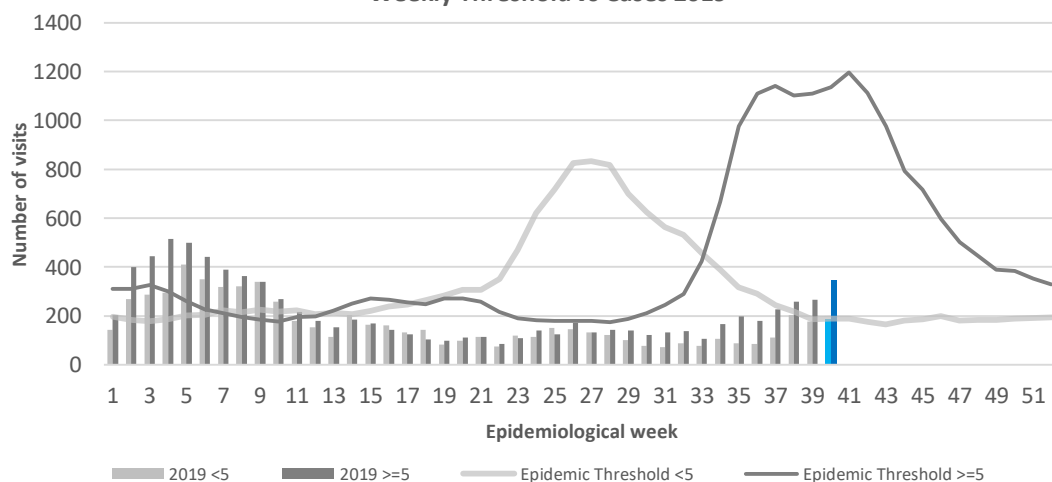
### FEVER

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



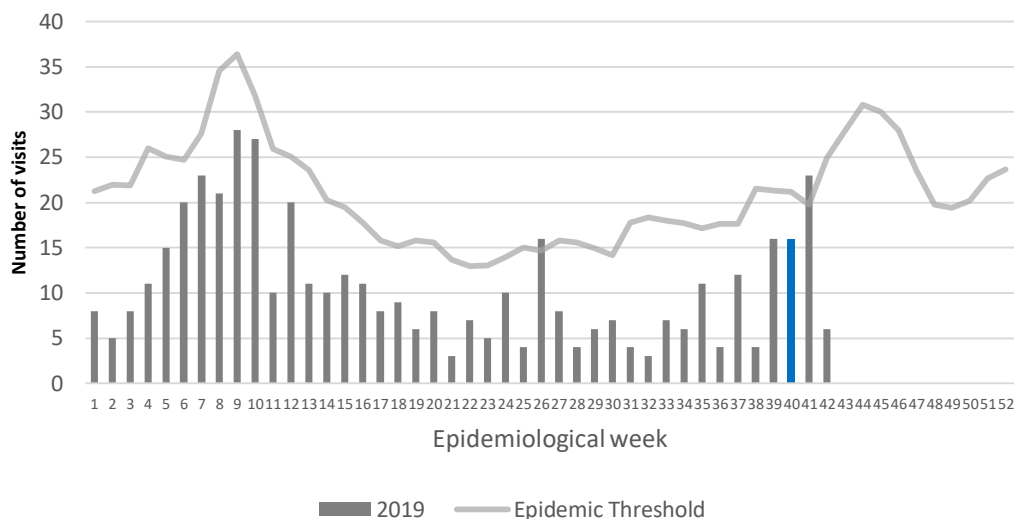
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

**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).



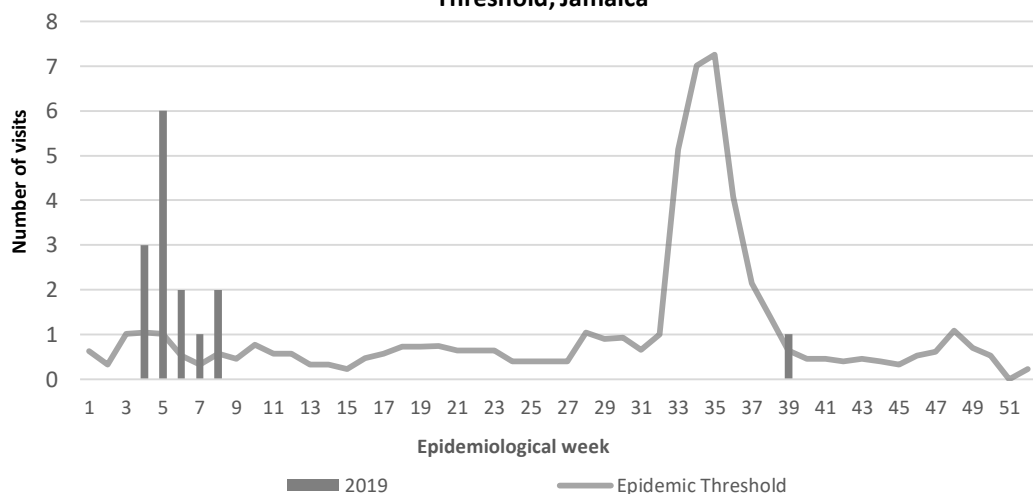
**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs. Weekly Threshold: Jamaica**

**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.



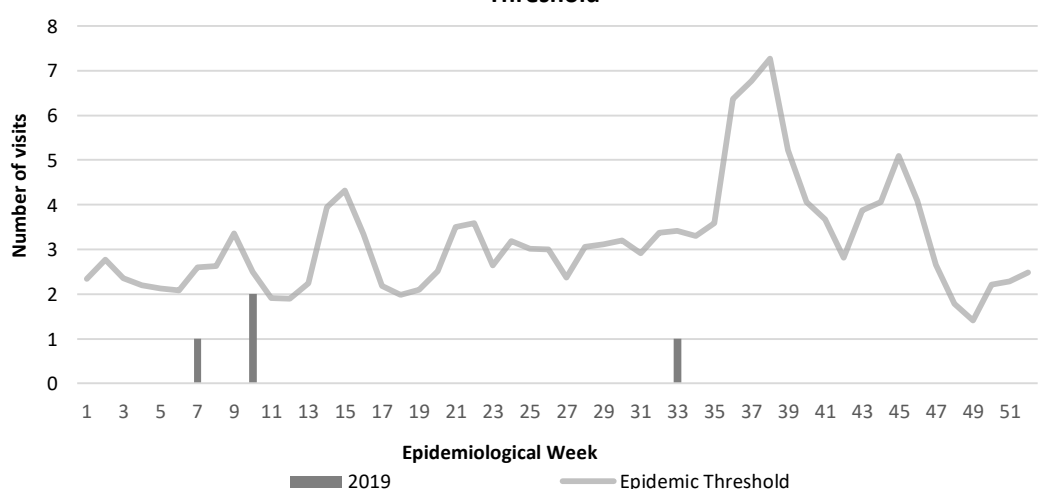
**Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2019 vs Weekly Threshold; Jamaica**

**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**

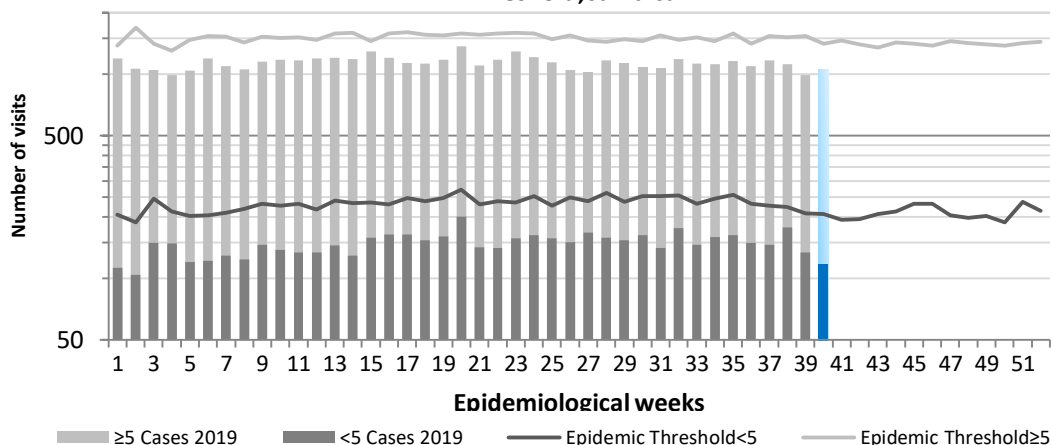
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

VARIATIONS OF **BLUE** SHOW CURRENT WEEK



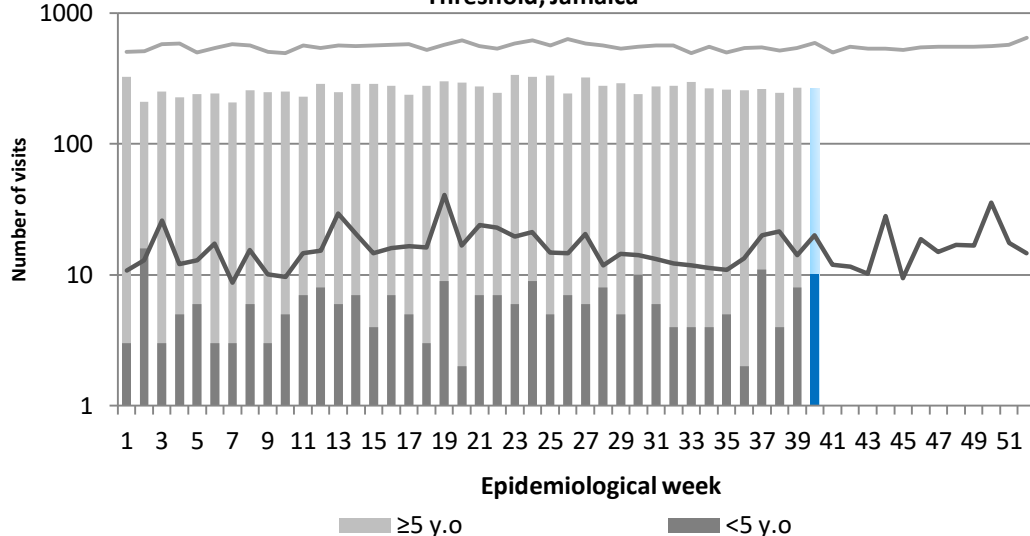
**Weekly visits to Sentinel Sites for Accidents by Age Group 2019 vs Weekly Threshold; Jamaica**

**VIOLENCE**

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



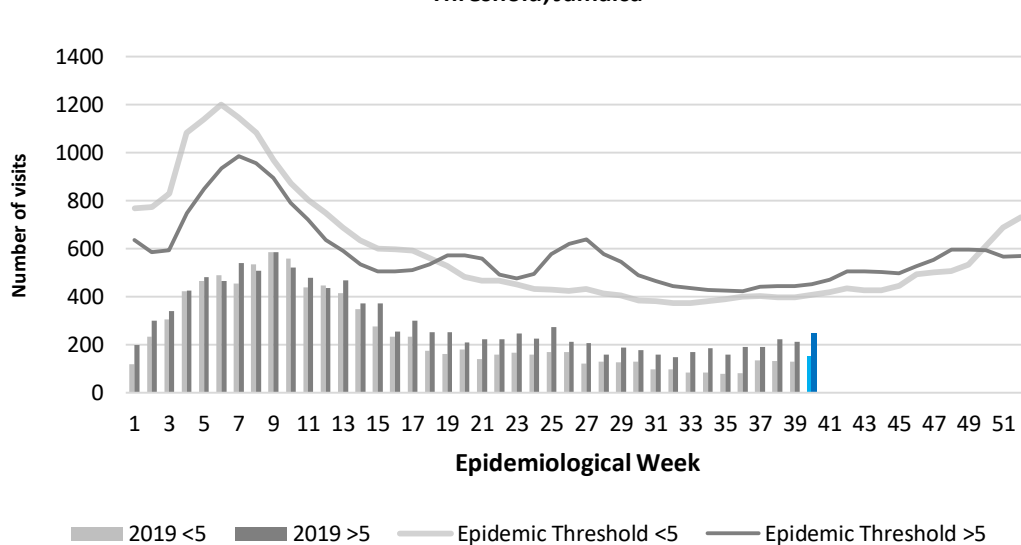
**Weekly visits to Sentinel Sites for Violence by Age Group 2019 vs Weekly Threshold; Jamaica**

**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              | 59            | 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           | 254           |                                                                                                                                                                                                                                               |   |
|                                  | Pertussis-like syndrome           | 0             | 0             |                                                                                                                                                                                                                                               |   |
|                                  | Rheumatic Fever                   | 0             | 0             |                                                                                                                                                                                                                                               |   |
|                                  | Tetanus                           | 0             | 0             |                                                                                                                                                                                                                                               |   |
|                                  | Tuberculosis                      | 48            | 61            |                                                                                                                                                                                                                                               |   |
|                                  | Yellow Fever                      | 0             | 0             |                                                                                                                                                                                                                                               |   |
|                                  | Chikungunya***                    | 2             | 10            |                                                                                                                                                                                                                                               |   |
|                                  | Zika Virus****                    | 0             | 0             | NA- Not Available                                                                                                                                                                                                                             |   |



5 NOTIFICATIONS-  
All clinical sites



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# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

September 29 – October 5, 2019 Epidemiological Week 40

*EW 40*

|                                  | <i>EW 40</i> | <i>YTD</i> |
|----------------------------------|--------------|------------|
| SARI cases                       | 14           | 402        |
| Total Influenza positive Samples | 3            | 376        |
| Influenza A                      | 3            | 334        |
| H3N2                             | 3            | 100        |
| H1N1pdm09                        | 0            | 226        |
| Not subtyped                     | 0            | 5          |
| Influenza B                      | 0            | 42         |
| Parainfluenza                    | 1            | 7          |

## Epi Week Summary

During EW 40, 3 cases of influenza were detected. Percent positivity remains low at 9.7%.

During EW 40, 14 (fourteen) SARI admissions were reported.

## Caribbean Update EW 40

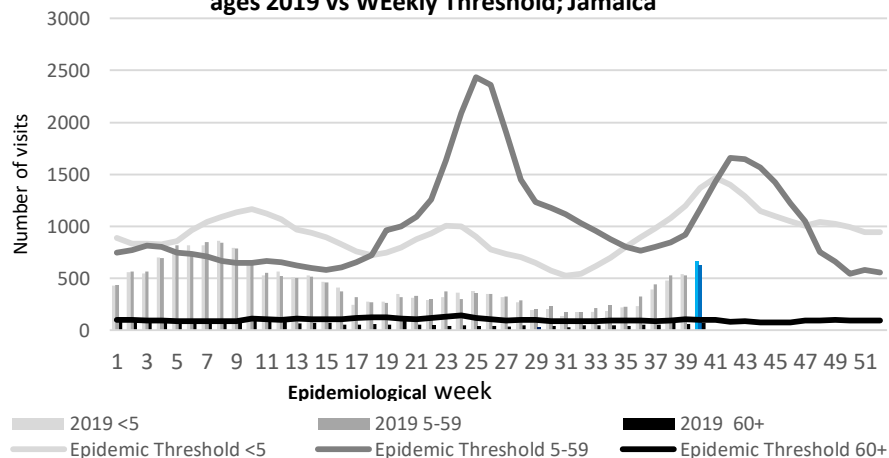
Influenza and SARI activity were low and continue at inter-seasonal levels.

## Global Update EW 40:

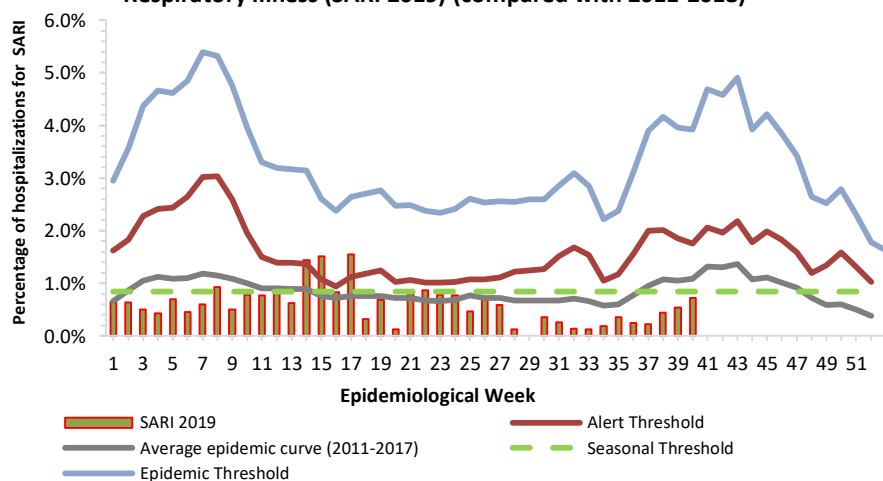
In the temperate zones of the southern hemisphere, influenza activity was low in most countries.

In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels in most countries. The influenza season appears to have started within the countries of the Arabian Peninsula.

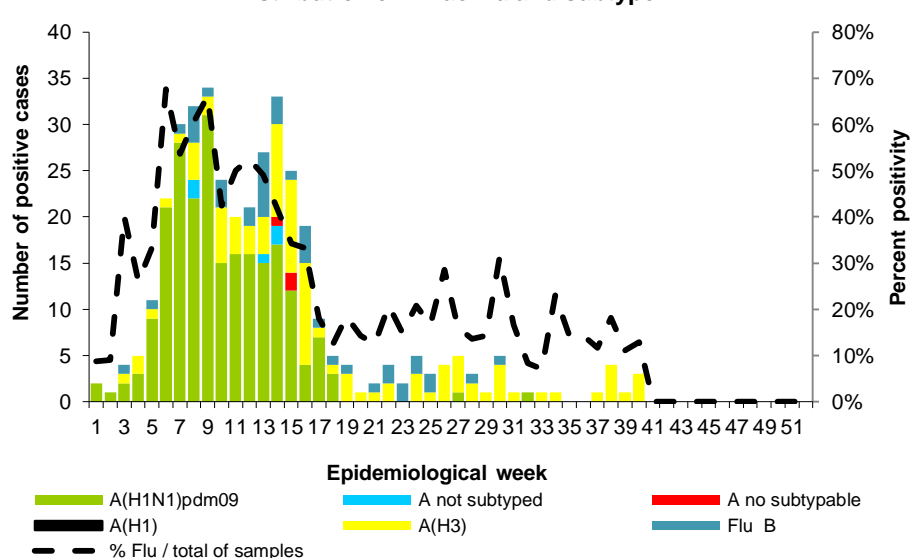
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2019 vs WWeekly Threshold; Jamaica



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



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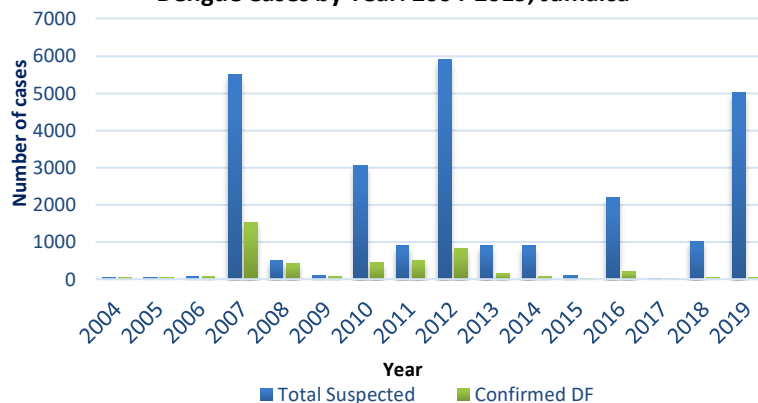
# Dengue Bulletin

September 29– October 5, 2019 Epidemiological Week 40

Epidemiological Week 40



Dengue Cases by Year: 2004-2019, Jamaica



## Reported suspected and confirmed dengue with symptom onset in weeks 1-40 2019

|                              |                       | 2019  |        | 2018 YTD |
|------------------------------|-----------------------|-------|--------|----------|
|                              |                       | EW 40 | YTD    |          |
| Total Suspected Dengue Cases |                       | 7     | **5023 | 282      |
| Lab Confirmed Dengue cases   |                       | 0     | 40     | 3        |
| 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

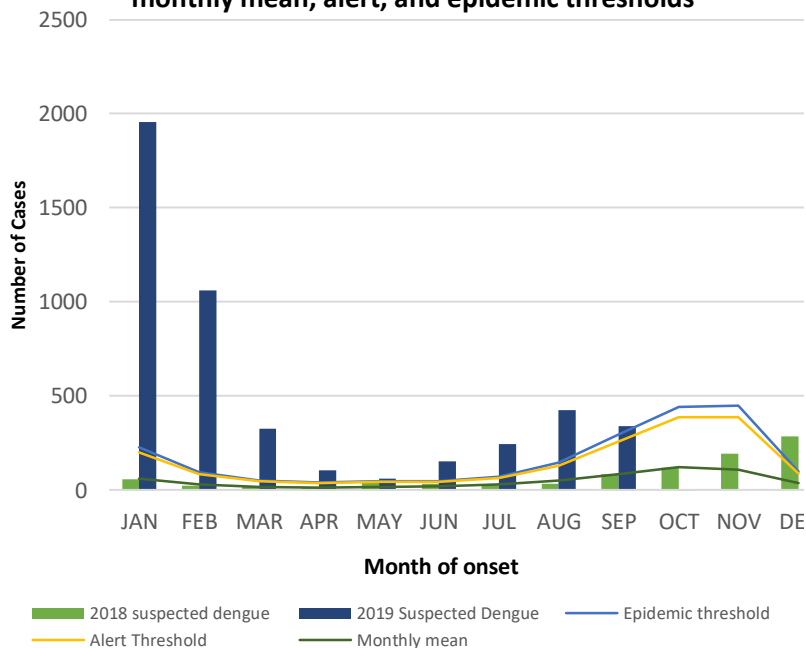
itching

slow heart rate

## Points to note:

- \*\*figure as at October 14, 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  
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# RESEARCH PAPER

**Title:****Psychiatric Relapse and Hospital Readmissions:****A Qualitative Study to Explore the Perspectives of Persons Living with Serious Mental Illness in Western Jamaica**

**Author:** Debra Roof, Department of Psychiatry, Cornwall Regional Hospital, Western Region Mental Health Services

**Email:** [debbiroof@yahoo.co.uk](mailto:debbiroof@yahoo.co.uk)

**Theme:** Chronic Non-communicable diseases (mental health)

**Abstract:**

**Objectives:** To conduct a qualitative study that explores patients' perspectives of the barriers and facilitators to recovery by:

- Exploring accounts of what is helpful or unhelpful for persons in staying well and out of hospital through a set of face-to-face semi-structured interviews with a sample of outpatients frequently hospitalised.
- Examining the overarching themes and shared experiences between patients by conducting a thematic analysis across the interview data.

**Methods:** A qualitative research methodology was used to investigate the perspectives of nine outpatients with a diagnosis of serious mental illness and frequent hospitalisation. Data collection was through face-to-face semi-structured interviews which explored the lived experience of staying well and out of hospital. Interviews were transcribed verbatim, data was manually coded and analysed using thematic analysis.

**Findings:** Six overarching themes: unmet basic needs, stopping medication, stress, marijuana use, influences of other people and physical effects were identified for the barriers to recovery. Five overarching themes: obtaining basic needs, taking medication, occupation, faith and the therapeutic aspect of the ward were the facilitators to recovery.

**Conclusions:** For this psychiatric setting there needs to be more concerted efforts to develop outpatient follow-up with psychosocial programmes that enhance rehabilitation and integrated care continuum for persons with mental illness. The importance of this study is that it provides a platform for patients living in Western Jamaica and gives insights into the lived experience. This has implications for therapists by building local knowledge and links to evidence-based practices that can improve patients' treatment and recovery outcomes.



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8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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