Released February 10, 2017 ISSN 0799-3927

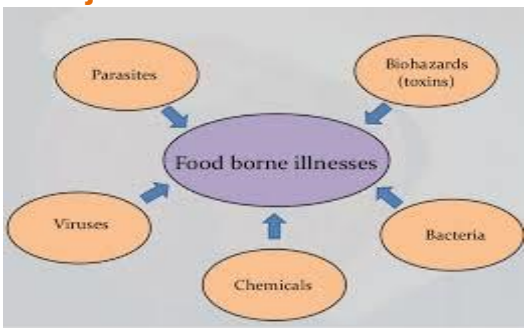
Week ending February 5-11, 2017 Epidemiology Week 6

# WEEKLY EPIDEMIOLOGY BULLETIN

## NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

## Weekly Spotlight

### Major foodborne illnesses and causes (Part II)




**Antimicrobials:**

Antimicrobials, such as antibiotics, are essential to treat infections caused by bacteria. However, their overuse and misuse in veterinary and human medicine has been linked to the emergence and spread of resistant bacteria, rendering the treatment of infectious diseases ineffective in animals and humans. Resistant bacteria enter the food chain through the animals (e.g. *Salmonella* through chickens). Antimicrobial resistance is one of the main threats to modern medicine.

**Viruses:**

Norovirus infections are characterized by nausea, explosive vomiting, watery diarrhoea and abdominal pain. Hepatitis A virus can cause long-lasting liver disease and spreads typically through raw or undercooked seafood or contaminated raw produce. Infected food handlers are often the source of food contamination.

**Parasites:**

Some parasites, such as fish-borne trematodes, are only transmitted through food. Others, for example tapeworms like *Echinococcus spp*, or *Taenia solium*, may infect people through food or direct contact with animals. Other parasites, such as *Ascaris, Cryptosporidium, Entamoeba histolytica* or *Giardia*, enter the food chain via water or soil and can contaminate fresh produce.

**Prions:**

Prions, infectious agents composed of protein, are unique in that they are associated with specific forms of neurodegenerative disease. Bovine spongiform encephalopathy (BSE, or "mad cow disease") is a prion disease in cattle, associated with the variant Creutzfeldt-Jakob Disease (vCJD) in humans. Consuming bovine products containing specified risk material, e.g. brain tissue, is the most likely route of transmission of the prion agent to humans.


Downloaded from: http://www.who.int/mediacentre/factsheets/fs399/en/

## EPI WEEK 6



NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

Released February 10, 2017 ISSN 0799-3927

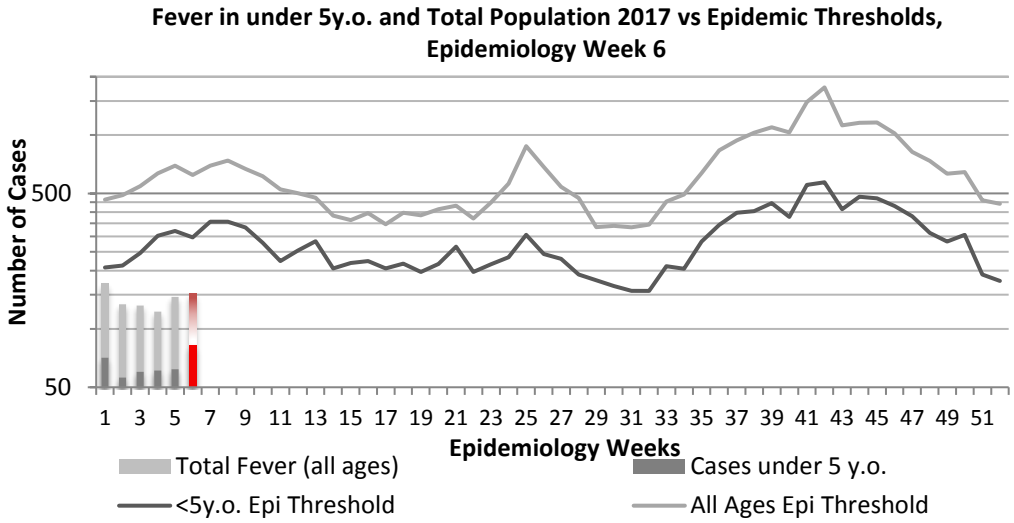
# REPORTS FOR SYNDROMIC SURVEILLANCE

**FEVER**

Temperature of $>38^0C$ /$100.4^0F$ (or recent history of fever) with or without an obvious diagnosis or focus of infection.

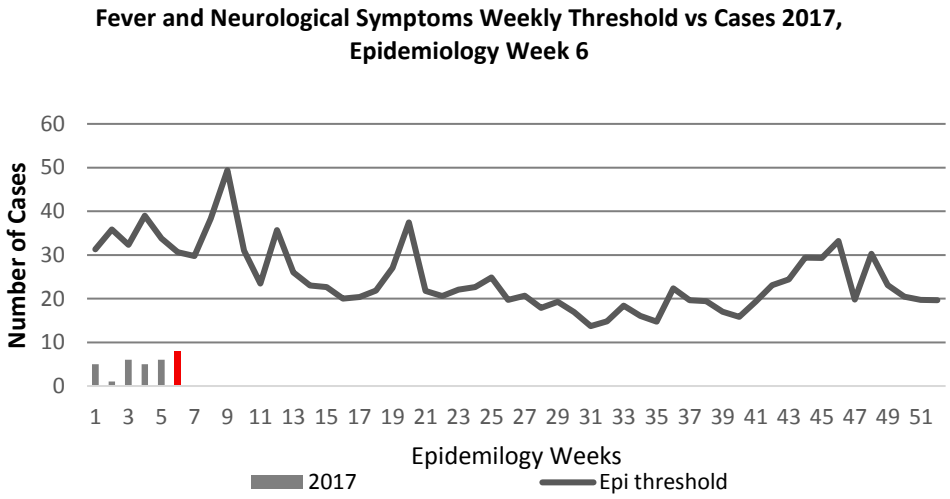
**KEY**

**RED** CURRENT WEEK



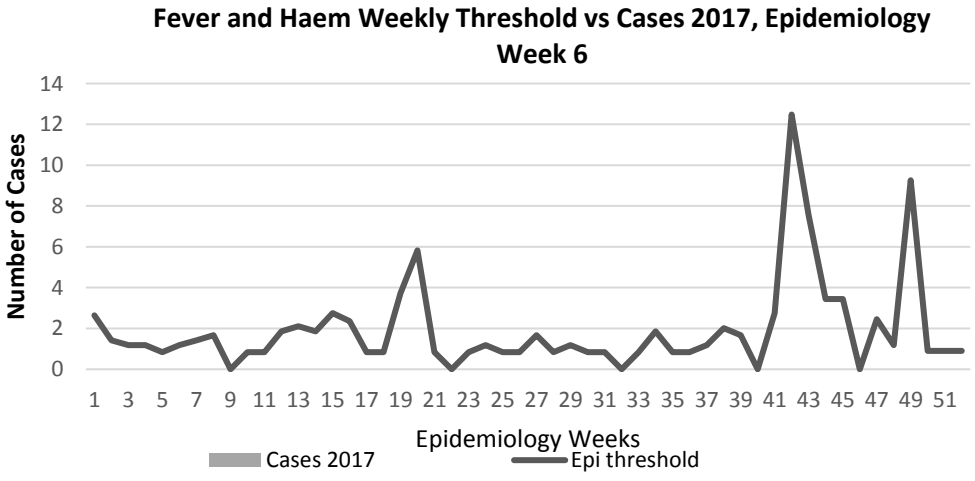

**FEVER AND NEUROLOGICAL**

Temperature of >380C /100.40F (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).




**FEVER AND HAEMORRHAGIC**

Temperature of $>38^0C$ /$100.4^0F$ (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.




NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

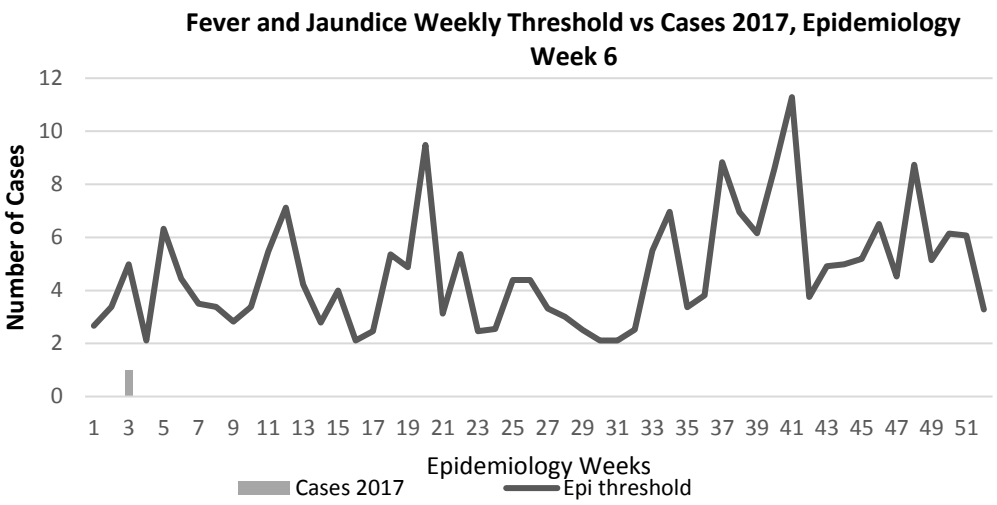
HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

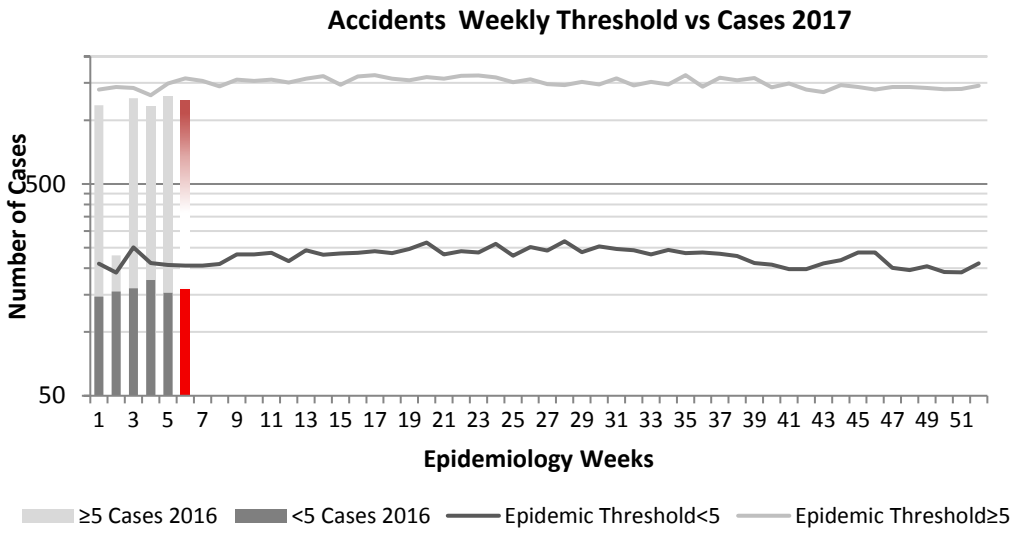
## FEVER AND JAUNDICE

Temperature of >38$^0C$ /100.4$^0F$ (or recent history of fever) in a previously healthy person presenting with jaundice.




## ACCIDENTS

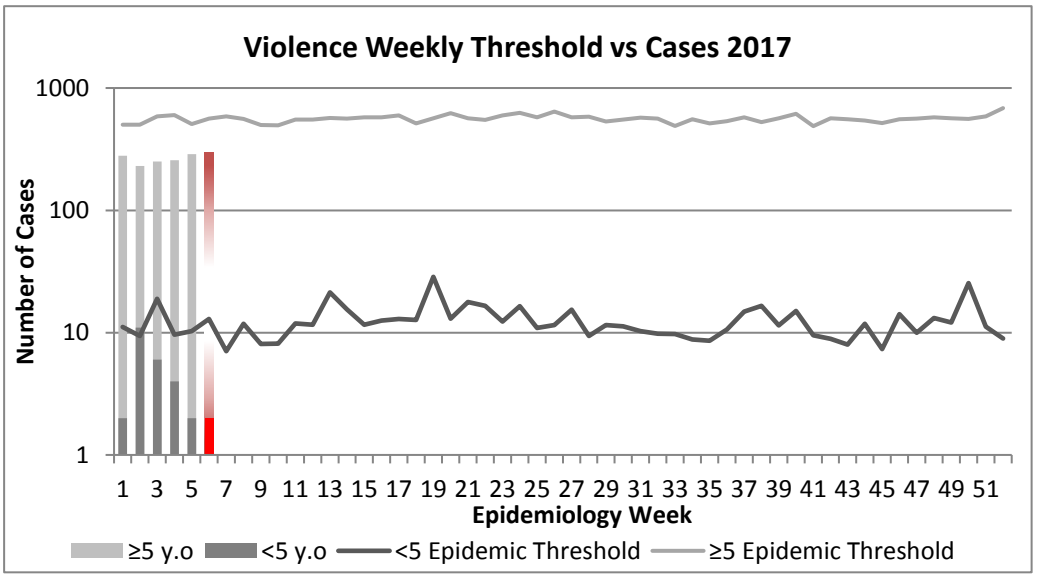
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.




## VIOLENCE

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

The epidemic threshold is used to confirm the emergence of an epidemic so as to step-up appropriate control measures.




NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

## CLASS ONE NOTIFIABLE EVENTS

| | CLASS 1 EVENTS | | CONFIRMED YTD CURRENT YEAR | CONFIRMED YTD PREVIOUS YEAR |
|---|---|---|---|---|
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning | | 4 | 20 |
| | Cholera | | 0 | 0 |
| | Dengue Hemorrhagic Fever[1] | | 0 | 0 |
| | Hansen's Disease (Leprosy) | | 0 | 0 |
| | Hepatitis B | | 0 | 0 |
| | Hepatitis C | | 0 | 0 |
| | HIV/AIDS - See HIV/AIDS National Programme Report | | | |
| | Malaria (Imported) | | 0 | 0 |
| | Meningitis ( Clinically confirmed) | | 2 | 8 |
| EXOTIC/ UNUSUAL | Plague | | 0 | 0 |
| H IGH MORBIDIT/ MORTALIY | 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[2] | | 6 | 5 |
| | Ophthalmia Neonatorum | | 16 | 41 |
| | Pertussis-like syndrome | | 0 | 0 |
| | Rheumatic Fever | | 1 | 1 |
| | Tetanus | | 0 | 0 |
| | Tuberculosis | | 0 | 0 |
| | Yellow Fever | | 0 | 0 |
| | Chikungunya | | 0 | 0 |
| | Zika Virus | | 0 | 0 |

### Comments

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.

Pertussis-like syndrome and Tetanus are clinically confirmed classifications.

The TB case detection rate established by PAHO for Jamaica is at least 70% of their calculated estimate of cases in the island, this is 180 (of 200) cases per year.

*Data not available

**1 Dengue Hemorrhagic Fever data include Dengue related deaths;**

**2 Maternal Deaths include early and late deaths.**

NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

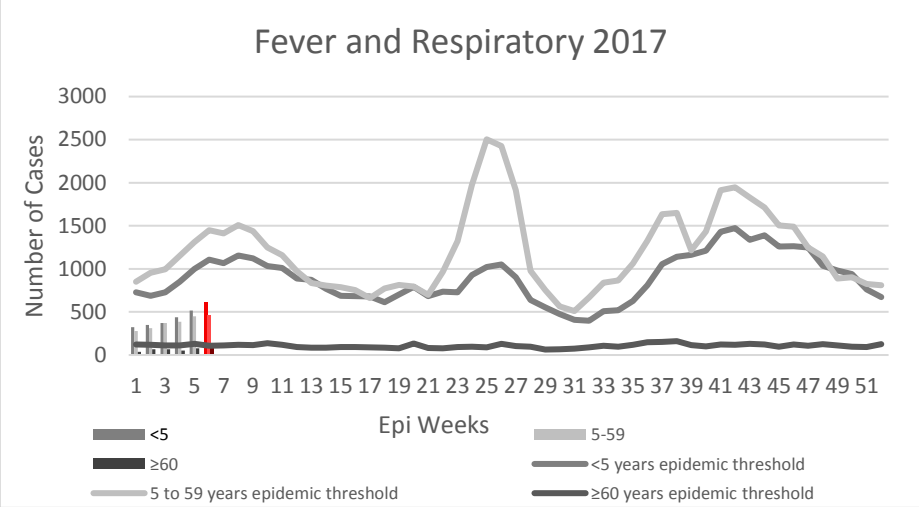
Released February 10, 2017 ISSN 0799-3927

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# *EW 6*

Feb 5-11, 2017 Epidemiology Week 6

| January 2017 | | |
|---|---|---|
| | *EW 6* | *YTD* |
| SARI cases | *15* | *67* |
| **Total Influenza positive Samples** | ***1*** | ***1*** |
| **Influenza A** | ***0*** | ***0*** |
| H3N2 | *0* | *0* |
| H1N1pdm09 | *0* | *0* |
| Not subtyped | *0* | *0* |
| **Influenza B** | *1* | ***1*** |
| **Other** | *0* | ***0*** |

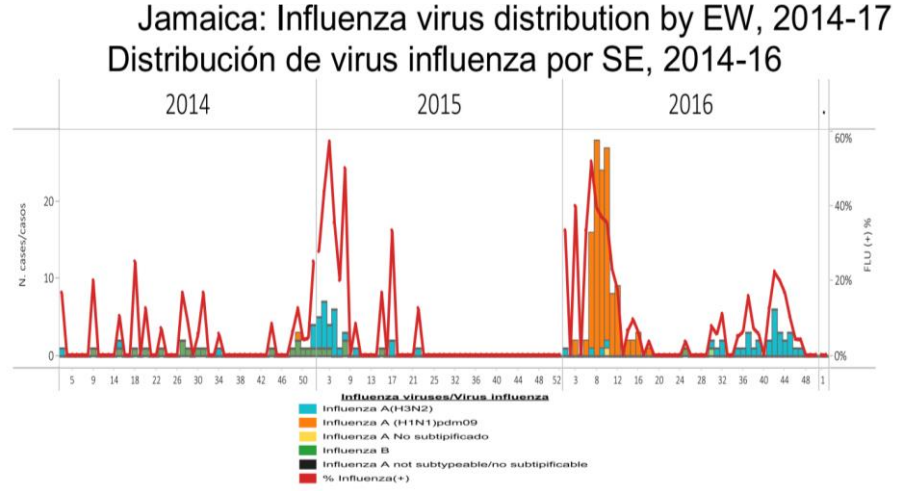



**Comments:**

During EW 5, SARI activity increased and peaked above the alert threshold. No SARI-related deaths were reported this week.

During EW 5, SARI cases were most frequently reported among adults aged from 15 to 49 years of age.

During EW 5, no influenza activity was reported.




## INDICATORS

**Burden**

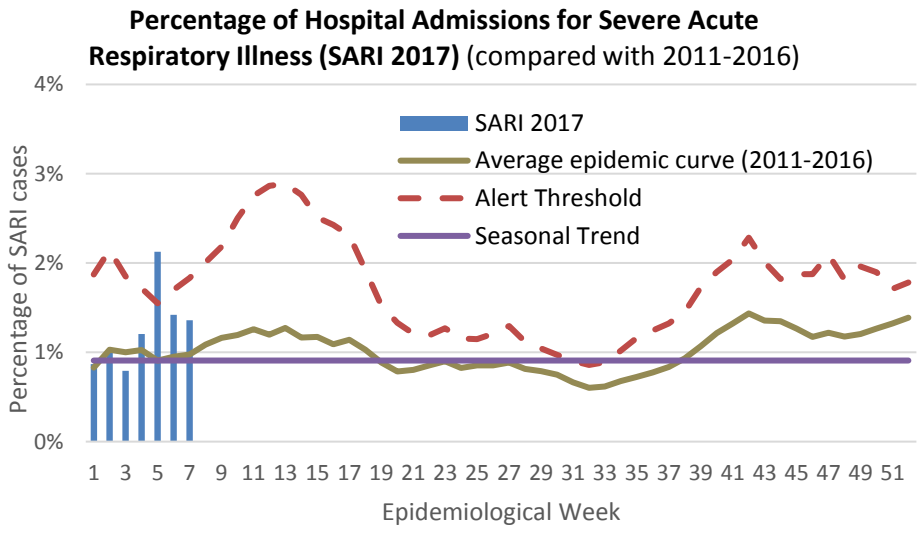
**Year to date, respiratory syndromes account for 3.3% of visits to health facilities.**

**Incidence**

**Cannot be calculated, as data sources do not collect all cases of Respiratory illness.**

**Prevalence**

**Not applicable to acute respiratory conditions.**




NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

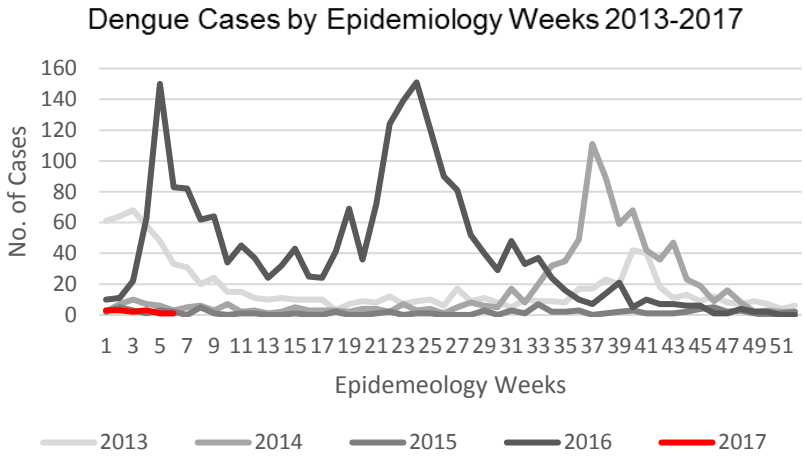
SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

Released February 10, 2017 ISSN 0799-3927

# Dengue Bulletin

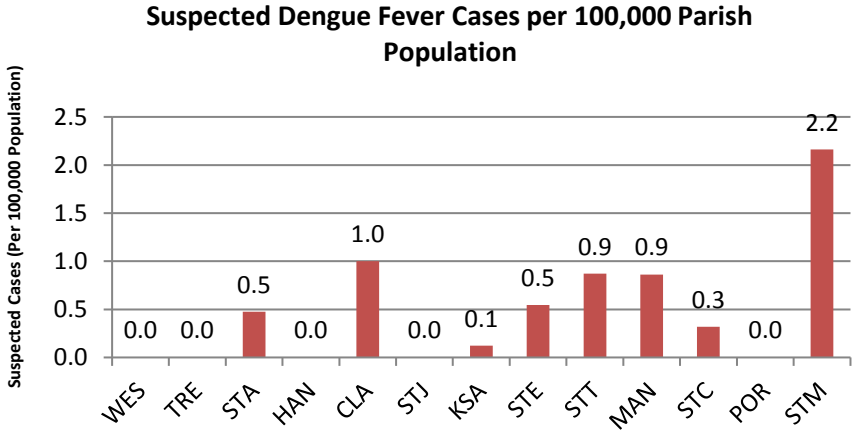
Feb 5-11, 2017 Epidemiology Week 6




## DISTRIBUTION

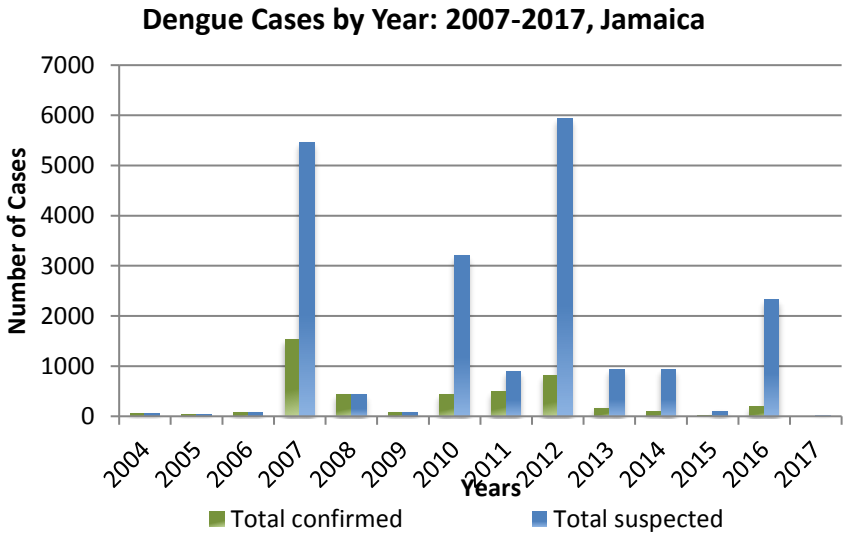
Year-to-Date Suspected Dengue Fever

| | M | F | Un-known | Total | % |
|---|---|---|---|---|---|
| <1 | 0 | 0 | 0 | 0 | 0 |
| 1-4 | 0 | 0 | 0 | 0 | 0 |
| 5-14 | 4 | 1 | 0 | 5 | 33 |
| 15-24 | 2 | 2 | 0 | 4 | 27 |
| 25-44 | 1 | 1 | 1 | 3 | 20 |
| 45-64 | 2 | 1 | 0 | 3 | 20 |
| ≥65 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| **TOTAL** | 9 | 5 | 1 | 15 | **100** |




## Weekly Breakdown of suspected and confirmed cases of DF,DHF,DSS,DRD

| | | 2017 | | 2016 YTD |
|---|---|---|---|---|
| | | EW 6 | YTD | |
| Total Suspected Dengue Cases | | 4 | 12 | 217 |
| Lab Confirmed Dengue cases | | 0 | 0 | 29 |
| CONFIRMED | DHF/DSS | 0 | 0 | 1 |
| | Dengue Related Deaths | 0 | 0 | 0 |




NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

Released February 10, 2017 ISSN 0799-3927

# Gastroenteritis Bulletin

EW 6

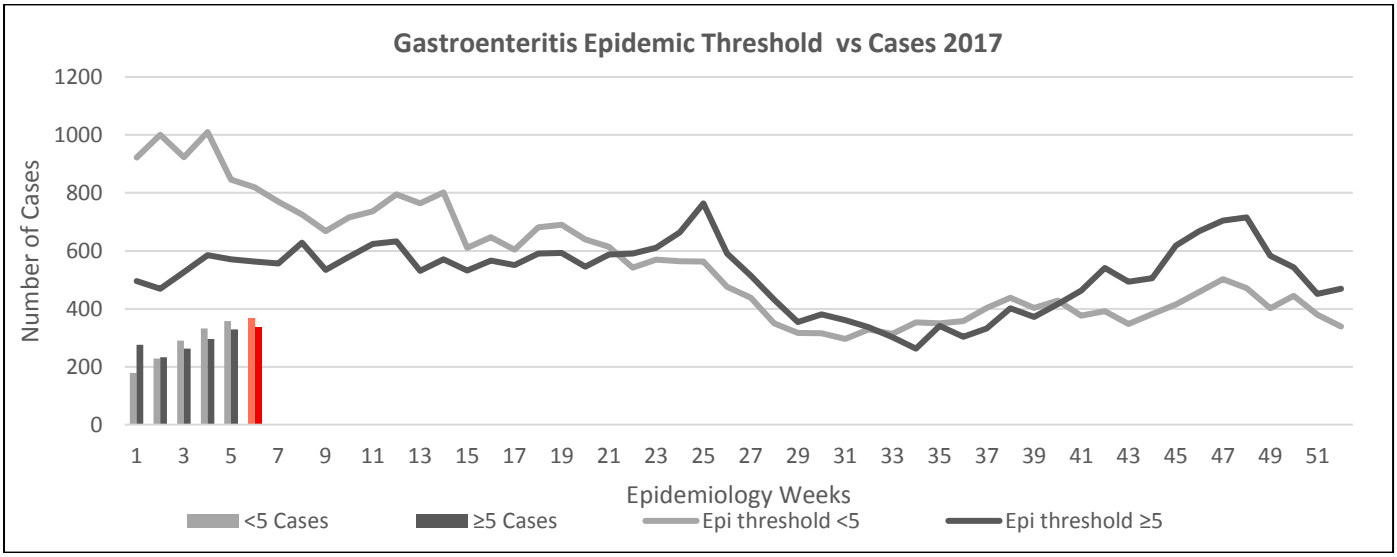
Feb 5-11, 2017 Epidemiology Week 6

## Weekly Breakdown of Gastroenteritis cases

| Year | EW 6 | | | YTD | | |
|---|---|---|---|---|---|---|
| | <5 | ≥5 | Total | <5 | ≥5 | Total |
| **2017** | 369 | 338 | 707 | 1,755 | 1,734 | 3,489 |
| **2016** | 179 | 223 | 402 | 1,007 | 1,353 | 2,360 |

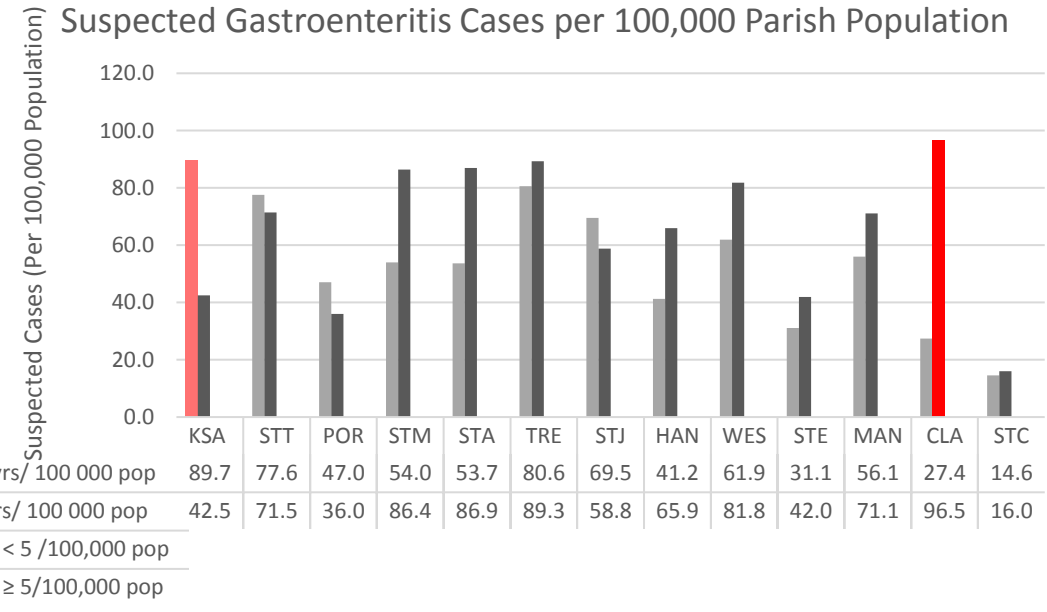
**Gastroenteritis:**
In Epidemiology Week 6, 2017, the total number of reported GE cases showed a 13% increase compared to EW 6 of the previous year.
The year to date figure showed an 17% increase in cases for the period.

**Figure 1: Total Gastroenteritis Cases Reported 2016-2017**




Clarendon reported the highest number of GE cases per 100,000 in their 5 years old and over population

KSA reported the highest number of GE cases per 100,000 in their under 5 years old population




| | KSA | STT | POR | STM | STA | TRE | STJ | HAN | WES | STE | MAN | CLA | STC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Suspected GE Cases < 5 yrs/ 100 000 pop | 89.7 | 77.6 | 47.0 | 54.0 | 53.7 | 80.6 | 69.5 | 41.2 | 61.9 | 31.1 | 56.1 | 27.4 | 14.6 |
| Suspected GE cases ≥5yrs/ 100 000 pop | 42.5 | 71.5 | 36.0 | 86.4 | 86.9 | 89.3 | 58.8 | 65.9 | 81.8 | 42.0 | 71.1 | 96.5 | 16.0 |

Highest number of cases < 5 /100,000 pop

Highest number of cases ≥ 5/100,000 pop

NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites*. Actively pursued

SENTINEL REPORT- 79 sites*. Automatic reporting

*Incidence/Prevalence cannot be calculated

Released February 10, 2017 ISSN 0799-3927

# RESEARCH PAPER

## HIV Case-Based Surveillance System Audit

*S. Whitbourne, Z. Miller*

**Objectives**: Evaluate the Public Health Surveillance System for HIV reporting, to help ensure that the data collected is accurate and useful for understanding epidemiological trends.

**Background:** Public health programmes focus on the monitoring, control and reduction in the incidence of target diseases, conditions or health events through various interventions and actions. The surveillance system is the primary mechanism through which specific disease information is collected and needs to be periodically assessed.

**Methodology:** In 2016, an audit was conducted of the HIV Case-Based Surveillance System in Jamaica. Laboratory records were reviewed from seven major health care facilities representing all four Regional Health Authorities. Cases with a positive HIV test in 2014 were noted and comparisons of positive cases were made with the cases that had been reported to the National Surveillance Unit. Qualitative data was also collected from key personnel in the form of questionnaires related to the processes involved in diagnosis, detection, investigation and reporting of HIV positive cases, but this paper will focus on the quantitative findings.

**Findings:** Preliminary data analysis reveals a high level of underreporting of HIV cases to the national level.

**Conclusions:** Audits and other forms of assessment need to be conducted on surveillance systems to ensure that the data supporting a public health programme is reliable and accurate, for effective delivery of services to target populations.

The Ministry of Health
24-26 Grenada Crescent
Kingston 5, Jamaica
Tele: (876) 633-7924
Email: surveillance@moh.gov.jm