

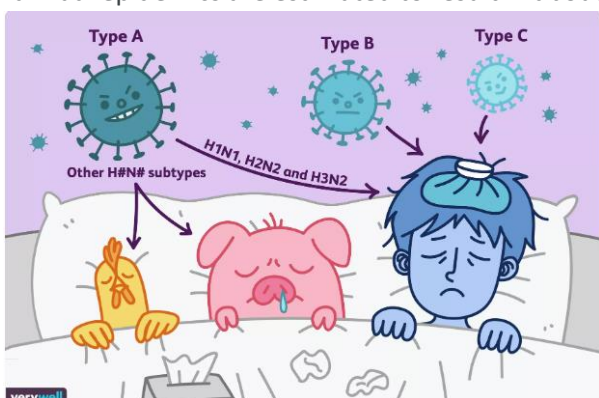
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Influenza

Seasonal influenza is characterized by a sudden onset of fever, cough (usually dry), headache, muscle and joint pain, severe malaise (feeling unwell), sore throat and a runny nose. The cough can be severe and can last 2 or more weeks. Most people recover from fever and other symptoms within a week without requiring medical attention. But influenza can cause severe illness or death especially in people at high risk (see below).

Illnesses range from mild to severe and even death. Hospitalization and death occur mainly among high risk groups. Worldwide, these annual epidemics are estimated to result in about 3 to 5 million cases



of severe illness, and about 290 000 to 650 000 respiratory deaths.

The effects of seasonal influenza epidemics in developing countries are not

fully known, but research estimates that 99% of deaths in children under 5 years of age with influenza related lower respiratory tract infections are found in developing countries

All age groups can be affected but there are groups that are more at risk than others.

In terms of transmission, seasonal influenza spreads easily, with rapid transmission in crowded areas including schools and nursing homes. When an infected person coughs or sneezes, droplets containing viruses (infectious droplets) are dispersed into the air and can spread up to one meter, and infect persons in close proximity who breathe these droplets in. The virus can also be spread by hands contaminated with influenza viruses. To prevent transmission, people should cover their mouth and nose with a tissue when coughing, and wash their

hands regularly.

The most effective to prevent the disease is vaccination. Safe and effective vaccines are available and have been used for more than 60 years. Immunity from vaccination wanes over time so annual vaccination is recommended to protect against influenza. Injected inactivated influenza vaccines are most commonly used throughout the world.

Source: [https://www.who.int/en/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/en/news-room/fact-sheets/detail/influenza-(seasonal))

EPI WEEK 1

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REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

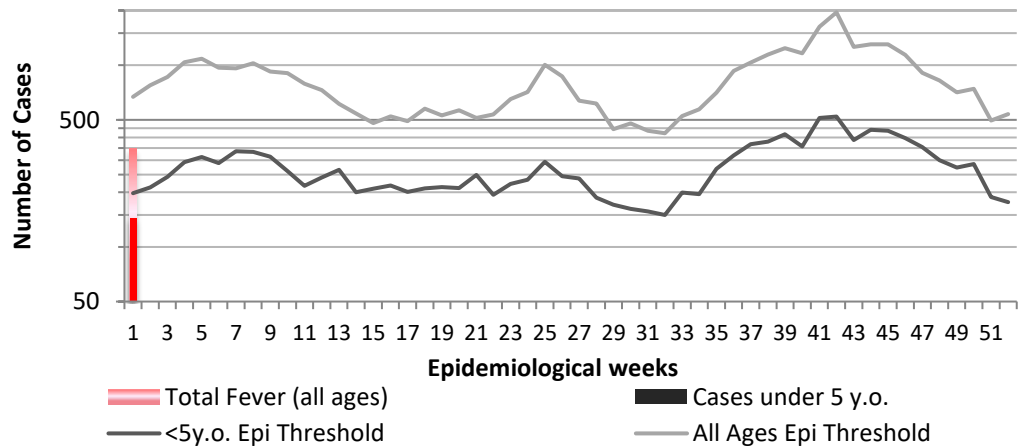
Temperature of $>38^{\circ}\text{C}$ / 100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



KEY

RED CURRENT WEEK

Fever in Under 5y.o. and Total Fever vs Epidemic Thresholds, Jamaica
Epidemiological Week 1, 2019

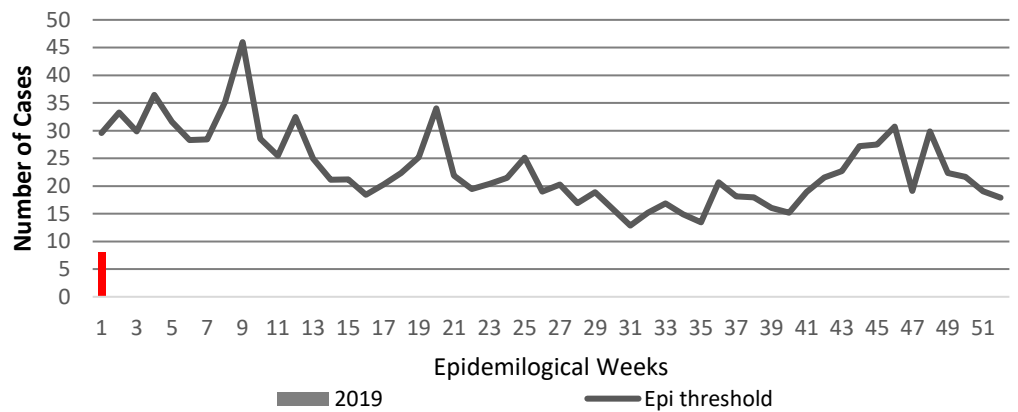


FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 1, 2019

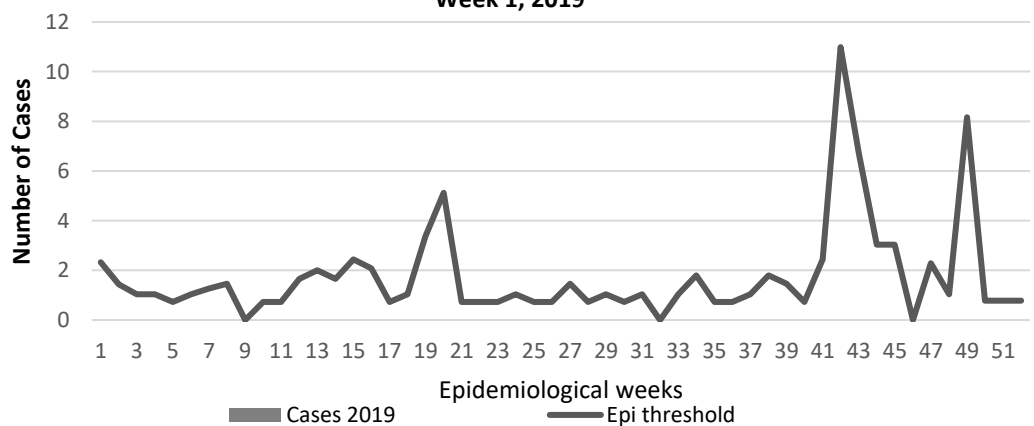


FEVER AND HAEMORRHAGIC

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 1, 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- 79 sites. Automatic reporting

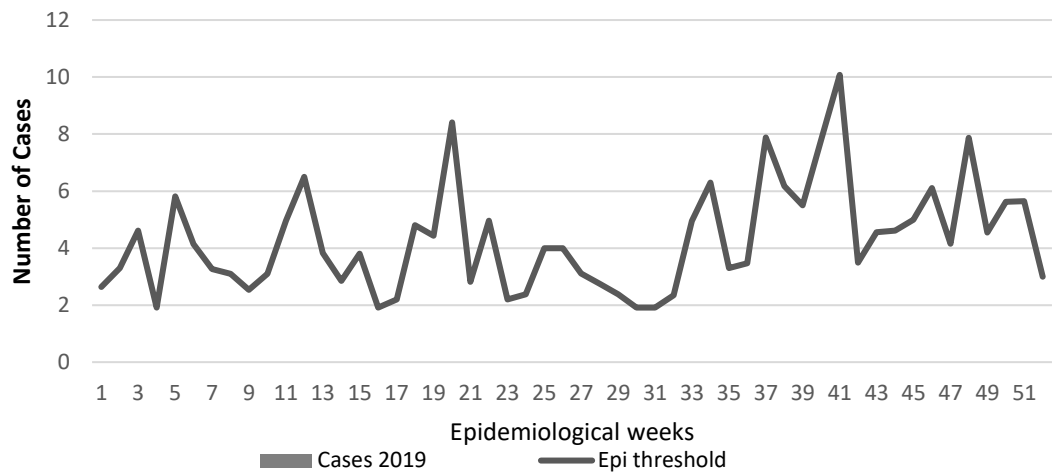
FEVER AND JAUNDICE

Temperature of $>38^{\circ}C$ / $100.4^{\circ}F$ (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 1, 2019



ACCIDENTS

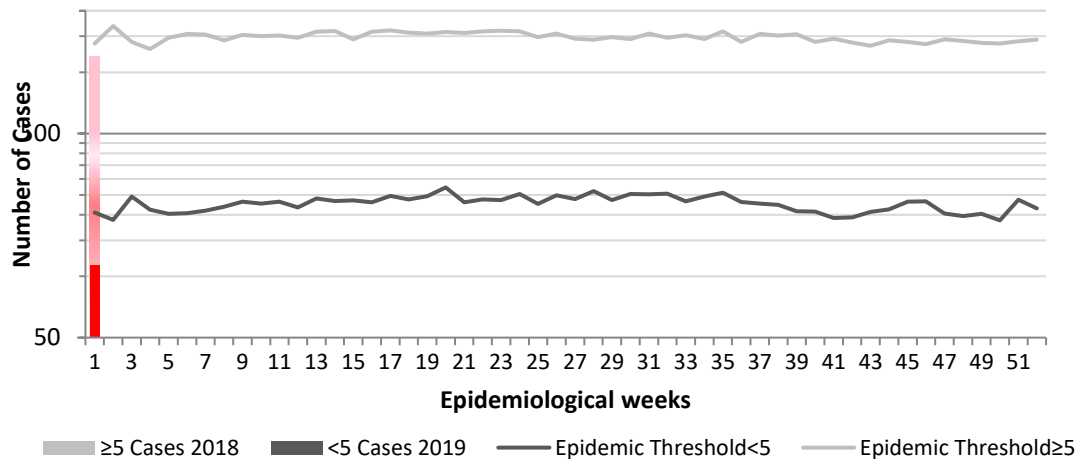
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

KEY

RED CURRENT WEEK



Accidents by Age Group Versus Epidemic Thresholds, Jamaica: Week 1, 2019

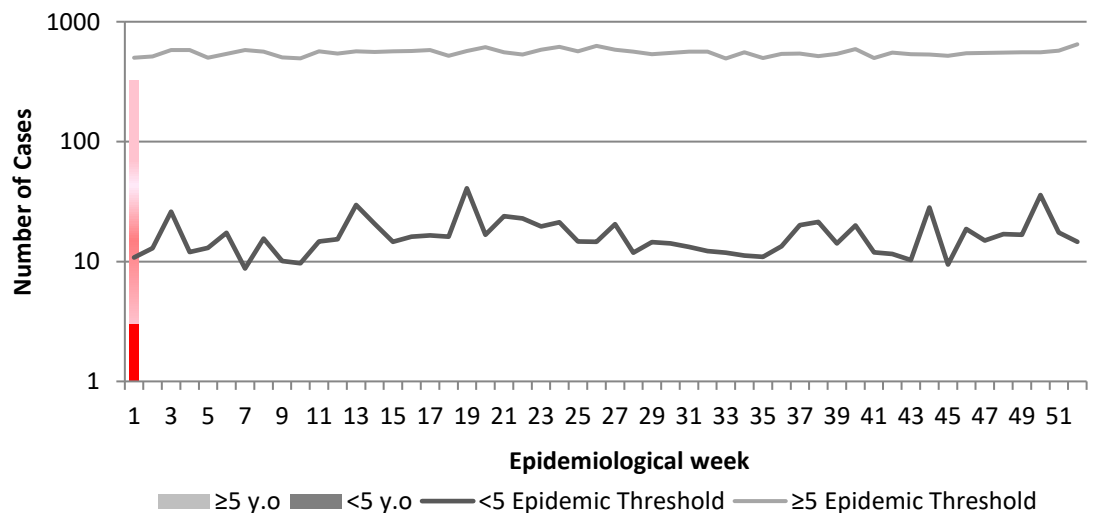


VIOLENCE

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



Violence by Age Group Versus Epidemic Thresholds, Jamaica: Week 1, 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- 79 sites. Automatic reporting

| CLASS ONE NOTIFIABLE EVENTS | | | Comments | |
|----------------------------------|---------------------------------------|---------|---------------|---------------|
| | | | CONFIRMED YTD | |
| | CLASS 1 EVENTS | | CURRENT YEAR | PREVIOUS YEAR |
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning ¹ | | 0 | 0 |
| | Cholera | | 0 | 0 |
| | Dengue Hemorrhagic Fever ² | | 0 | 0 |
| | Hansen's Disease (Leprosy) | | 0 | 0 |
| | Hepatitis B | | 0 | 0 |
| | Hepatitis C | | 0 | 0 |
| | HIV/AIDS | | NA | NA |
| | Malaria (Imported) | | 0 | 0 |
| | Meningitis (Clinically confirmed) | | 1 | 1 |
| EXOTIC/ UNUSUAL | Plague | | 0 | 0 |
| 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 ³ | | 3 | 3 |
| | Ophthalmia Neonatorum | | 0 | 0 |
| | Pertussis-like syndrome | | 0 | 0 |
| | Rheumatic Fever | | 0 | 0 |
| | Tetanus | | 0 | 0 |
| | Tuberculosis | | 0 | 0 |
| | Yellow Fever | | 0 | 0 |
| Chikungunya ⁴ | | 0 | 0 | |
| Zika Virus ⁵ | | 0 | 0 | |

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.

¹ Numbers in brackets indicate combined suspected and confirmed Accidental Poisoning cases

² Dengue Hemorrhagic Fever data include Dengue related deaths;


³ Figures include all deaths associated with pregnancy reported for the period.

⁴ CHIKV IgM positive cases

⁵ Zika PCR positive cases



NA- Not Available

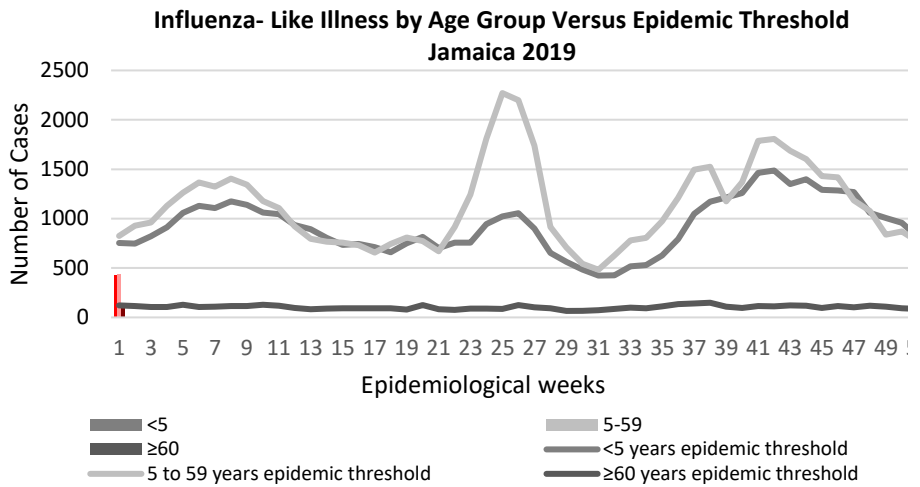
| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>4 NOTIFICATIONS- All clinical sites</p> |  <p>INVESTIGATION REPORTS- Detailed Follow up for all Class One Events</p> |  <p>HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued</p> |  <p>SENTINEL REPORT- 79 sites. Automatic reporting</p> |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

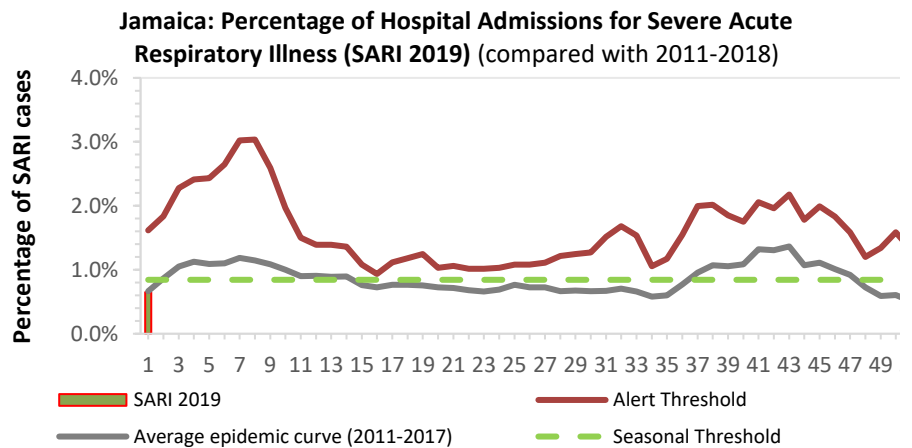
EW 1

Dec. 30, 2018 to January 5, 2019 Epidemiological Week 1

| December 2019 | | |
|-----------------------------------------|----------|----------|
| | EW 1 | YTD |
| SARI cases | 10 | 10 |
| Total Influenza positive Samples | 2 | 2 |
| Influenza A | 2 | 2 |
| H3N2 | 0 | 0 |
| H1N1pdm09 | 2 | 2 |
| Not subtyped | 0 | 0 |
| Influenza B | 0 | 0 |
| Parainfluenza | 0 | 0 |



Comments:
During EW 1 SARI activity remained below the seasonal threshold, similar to the previous seasons for the same period. Decreased influenza activity was reported; with influenza A(H1N1)pdm09 predominating in previous weeks

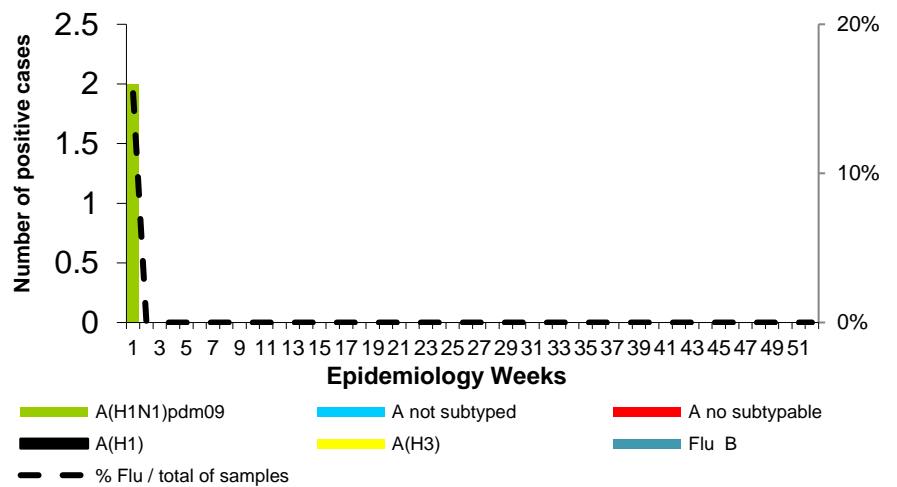


GLOBAL AND REGIONAL UPDATES

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

Caribbean: Influenza activity decreased and RSV activity was reported in most of the subregion. In Cuba and Haiti, the greatest activity of SARI was associated with influenza A (H1N1) pdm09.

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- 79 sites. Automatic reporting

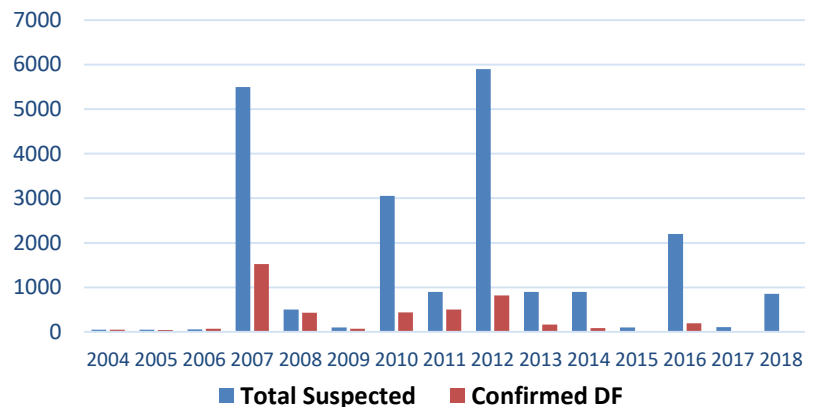
Dengue Bulletin

Dec. 30, 2018 to January 5, 2019

Epidemiological Week 1



Dengue Cases by Year: 2007-2018, Jamaica



Reported suspected and confirmed dengue with symptom onset in week 1, 2019

| | | 2019 | | 2018 YTD |
|------------------------------|-----------------------|------|-----|----------|
| | | EW 1 | YTD | |
| CONFIRMED | *DHF/DSS | 0 | 0 | 0 |
| | Dengue Related Deaths | 0 | 0 | 0 |
| Total Suspected Dengue Cases | | 165 | 165 | 12 |
| Lab Confirmed Dengue cases | | 4 | 4 | 0 |

DENGUE FEVER

- Symptoms**
 - High Fever
 - Headache
 - Nausea
 - Stomach Ache
 - Vomiting
 - Muscle Pain
 - Rashes
 - Diarrhea
 - Mild Bleeding gums
- Diagnoses**
 - Antibody detection
 - Antigen detection
 - RNA detection
 - Viral isolation
- Prevention**
 - Cover containers
 - Use mosquito nets, sprays.
 - Wear full sleeves
 - Fumigation
- Treatment**
 - There is no specific treatment for dengue or dengue hemorrhagic fever. Only symptomatic treatment is given.

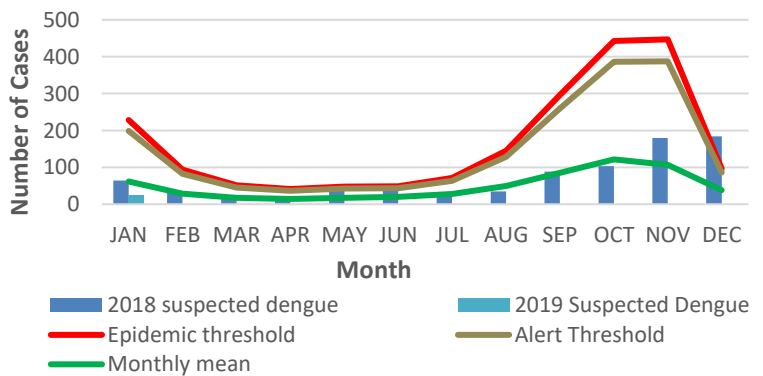


*DHF/DSS: Dengue Haemorrhagic Fever/ Dengue Shock Syndrome

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



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 79 sites. Automatic reporting

Gastroenteritis (GE) Bulletin

EW
1

Dec. 30, 2018 to January 5, 2019

Epidemiological Week 1

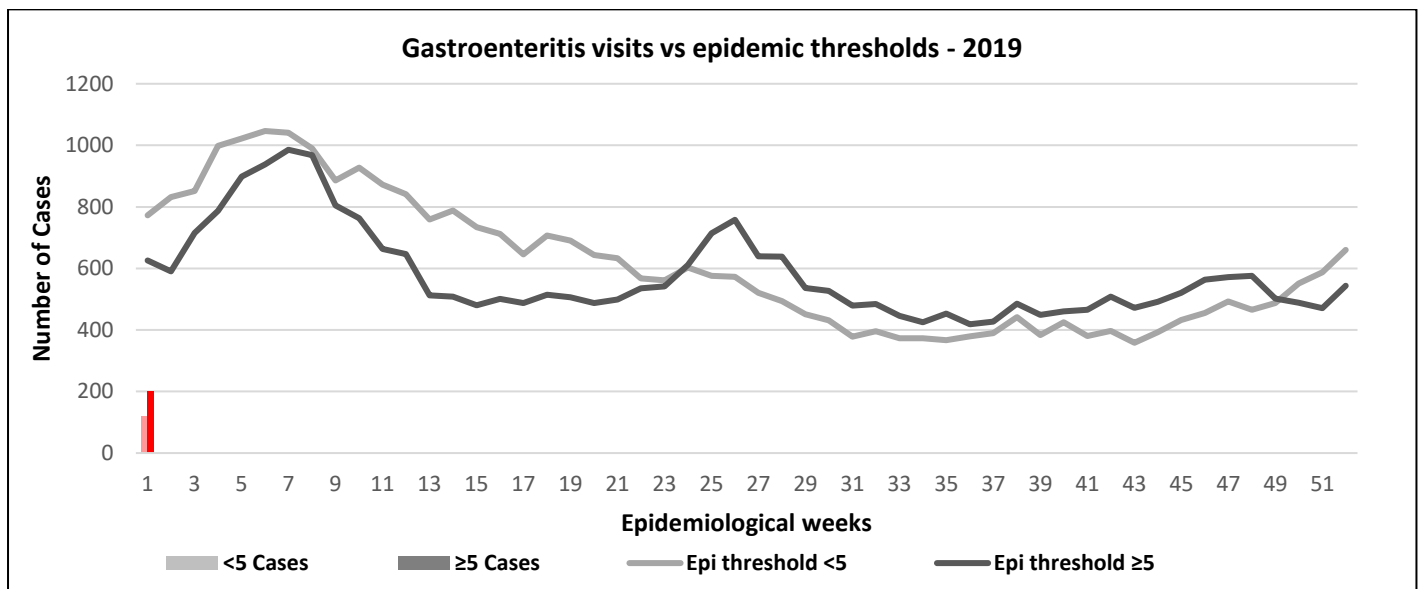
Table: GE visits to sentinel sites: current week and year-to-

| Year | EW 1 | | | YTD | | |
|------|------|-----|-------|-----|-----|-------|
| | <5 | ≥5 | Total | <5 | ≥5 | Total |
| 2019 | 118 | 199 | 317 | 118 | 199 | 317 |
| 2018 | 157 | 216 | 373 | 157 | 216 | 373 |

Gastroenteritis:

In epidemiological week 1, 2019, the total number of reported GE cases (all ages) showed a 15% decrease compared to EW 1 of 2018

Chart: Weekly GE visits versus epidemic threshold, by age group – Jamaica, 2019



Cumulative total of GE visits by parish as at Week 1, 2019

| Parishes | KSA | STT | POR | STM | STA | TRE | STJ | HAN | WES | STE | MAN | CLA | STC |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <5 | 21 | 3 | 1 | 5 | 10 | 3 | 17 | 1 | 2 | 7 | 26 | 17 | 5 |
| ≥5 | 35 | 6 | 4 | 16 | 23 | 10 | 13 | 3 | 8 | 5 | 34 | 27 | 15 |



7 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

RESEARCH PAPER

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*

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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
SURVEILLANCE-
30 sites. Actively
pursued



SENTINEL
REPORT- 79 sites.
Automatic reporting