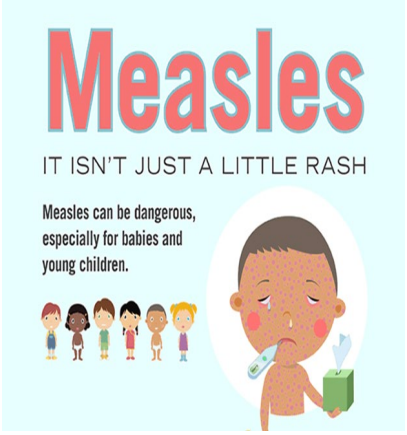
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

MEASLES



Measles is a highly contagious, serious disease caused by a virus. Before the introduction of measles vaccine in 1963 and widespread vaccination, major epidemics occurred approximately every 2–3 years and measles caused an estimated 2.6 million deaths each year.

Measles is caused by a virus in the paramyxovirus family and it is normally passed through direct contact and through the air. The virus infects the respiratory tract, then spreads throughout the body.

Measles is a human disease and is not known to occur in animals. It is spread by coughing and sneezing, close personal contact or direct contact with infected nasal or throat secretions. The virus remains active and contagious in the air or on infected surfaces for up to 2 hours. It can be transmitted by an infected person from 4 days prior to the onset of the rash to 4 days after the rash erupts.

The first sign of measles is usually a high fever, which begins about 10 to 12 days after exposure to the virus, and lasts 4 to 7 days. A runny nose, a cough, red and watery eyes, and small white spots inside the cheeks can develop in the initial stage. After several days, a rash erupts, usually on the face and upper neck. Over about 3 days, the rash spreads, eventually reaching the hands and feet. The rash lasts for 5 to 6 days, and then fades. On average, the rash occurs 14 days after exposure to the virus (within a range of 7 to 18 days).

Unvaccinated young children are at highest risk of measles and its complications, including death. Unvaccinated pregnant women are also at risk. Any non-immune person (who has not been vaccinated or was vaccinated but did not develop immunity) can become infected.

Measles outbreaks can result in epidemics that cause many deaths, especially among young, malnourished children. In countries where measles has been largely eliminated, cases imported from other countries remain an important source of infection.

No specific antiviral treatment exists for measles virus.

Routine measles vaccination for children, combined with mass immunization campaigns in countries with high case and death rates, are key public health strategies to reduce global measles deaths. The measles vaccine has been in use for over 50 years. It is safe, effective and inexpensive. It costs approximately one US dollar to immunize a child against measles.

The measles vaccine is often incorporated with rubella and/or mumps vaccines. It is equally safe and effective in the single or combined form. Adding rubella to measles vaccine increases the cost only slightly, and allows for shared delivery and administration costs.

Source: https://www.who.int/news-room/fact-sheets/detail/measles

EPI WEEK 13

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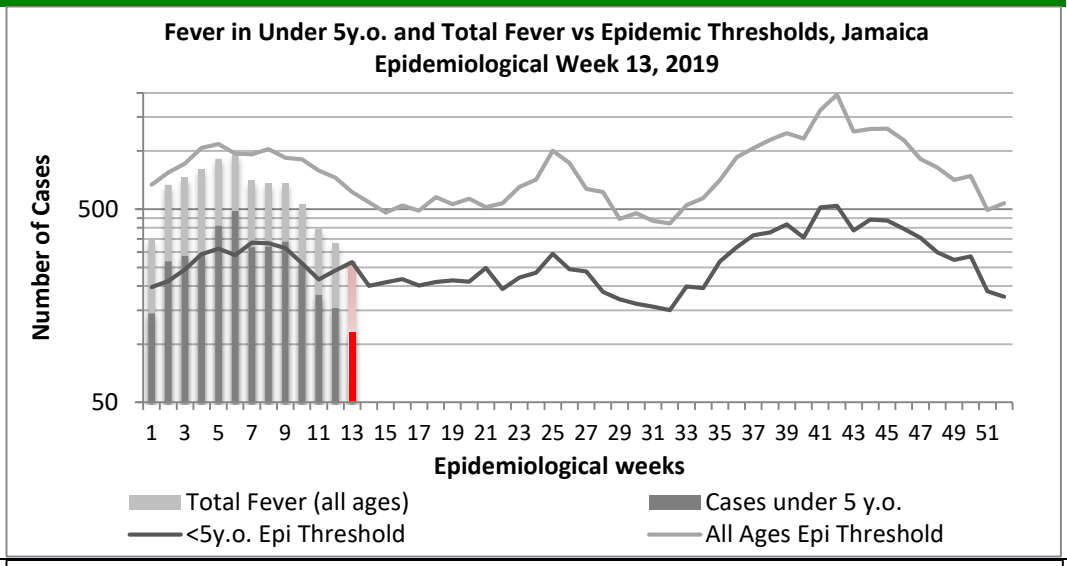
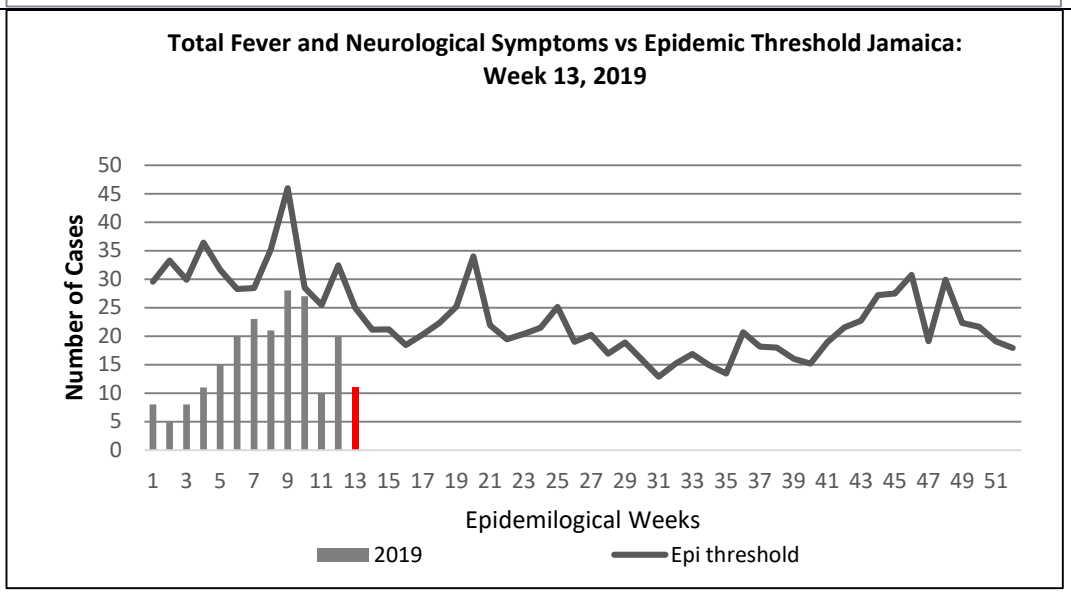
REPORTS FOR SYNDROMIC SURVEILLANCE

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

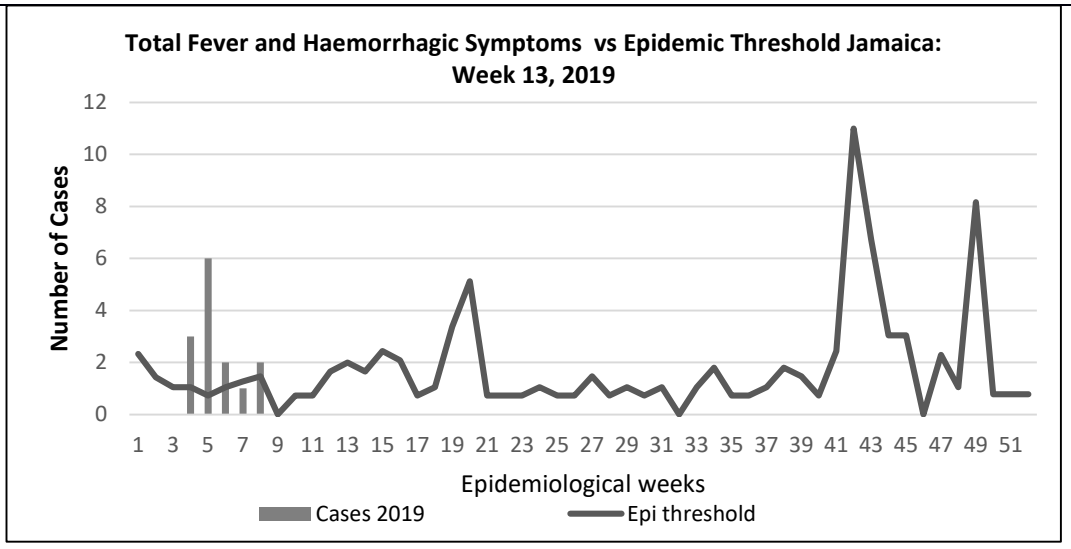
KEY
RED CURRENT WEEK



FEVER AND NEUROLOGICAL
Temperature of >38^{0}C /100.4^{0}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).



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.



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

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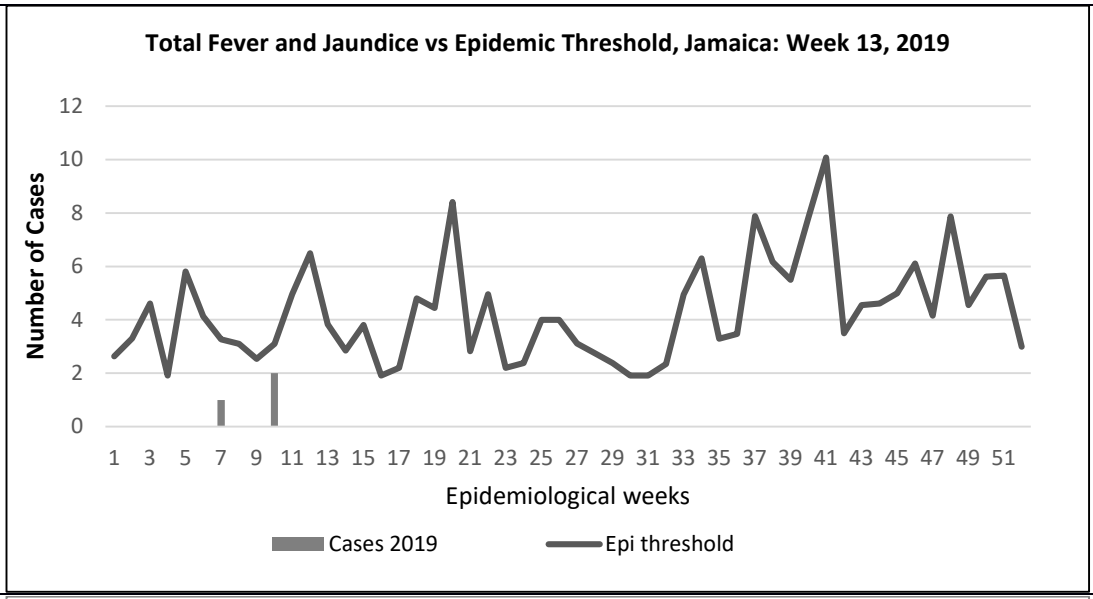
FEVER AND JAUNDICE

Temperature of $>38^0C$ /100.4^0F (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.

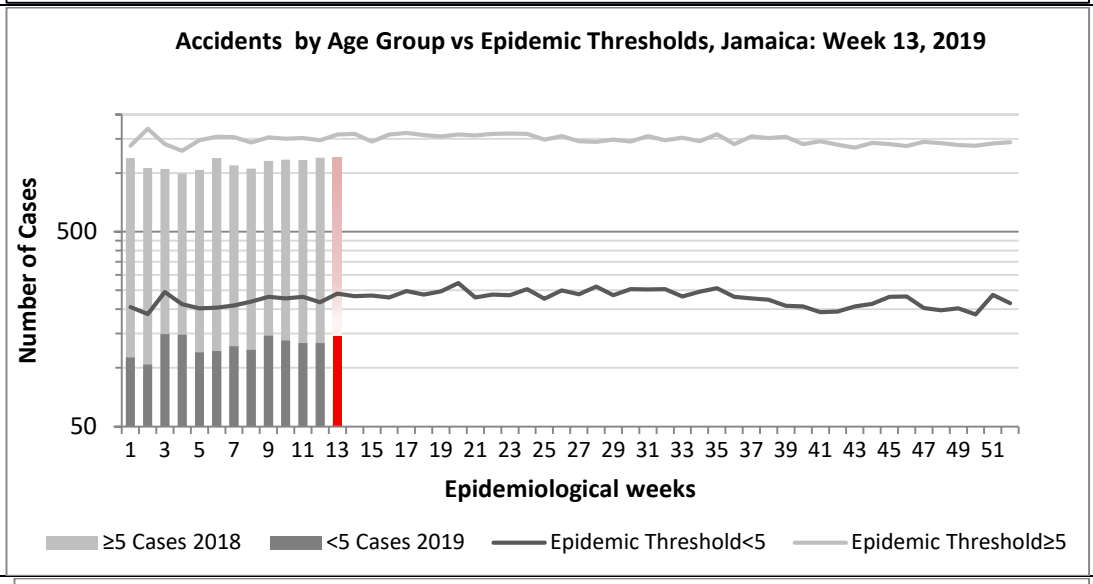


ACCIDENTS

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

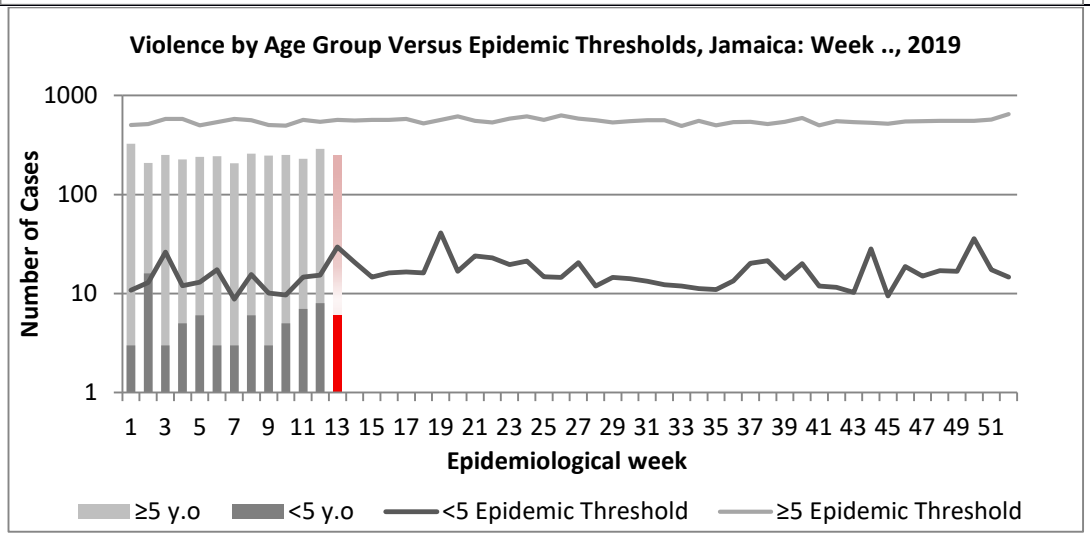
KEY

RED CURRENT WEEK



VIOLENCE

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



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CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS		CONFIRMED YTD CURRENT YEAR	CONFIRMED YTD PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning[1]		6	40
	Cholera		0	0
	Dengue Hemorrhagic Fever[2]		0	0
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		1	6
	Hepatitis C		1	1
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis (Clinically confirmed)		1	21
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[3]		14	33
	Ophthalmia Neonatorum		45	82
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		5	8
	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

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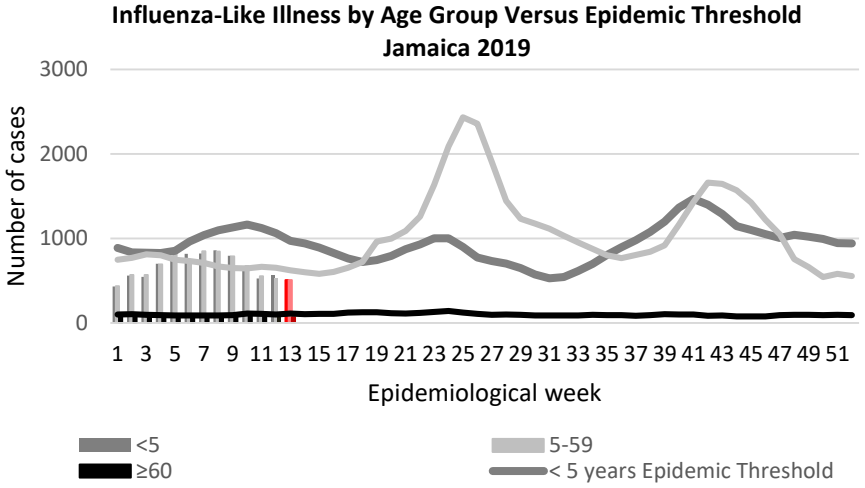
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 13

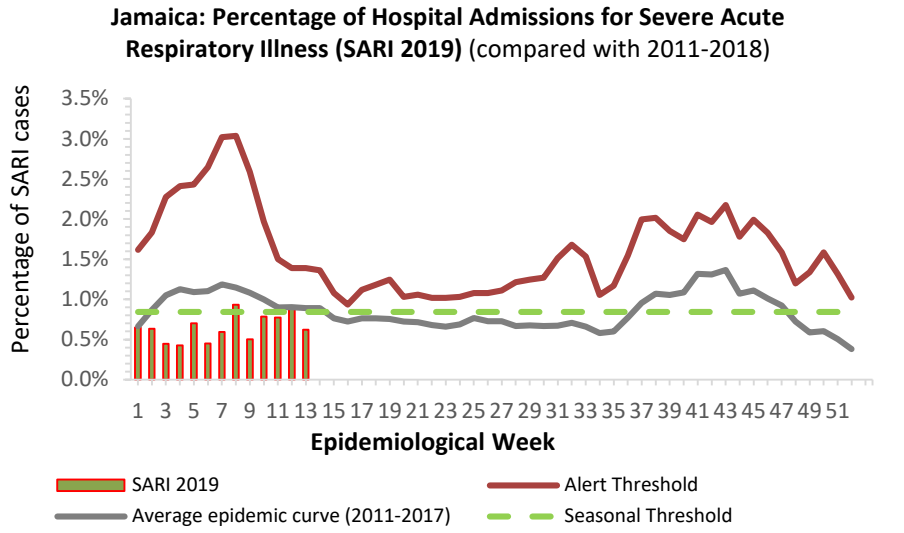
March 24-30, 2019 Epidemiological Week 13

February 2019	*EW 13*	*YTD*
SARI cases	*11*	*150*
Total Influenza positive Samples	***3***	***196***
Influenza A	***2***	***184***
H3N2	***0***	***15***
H1N1pdm09	***1***	***126***
Not subtyped	***1***	***43***
Influenza B	***1***	***12***
Parainfluenza	***0***	***2***



Comments:
Swine flu is a respiratory disease caused by the influenza virus (Influenza A H1N1 and H3N2) that infect the respiratory tract of pigs and result in a barking cough, decreased appetite, nasal secretions and listless behaviour. Occasionally, it may be transmitted to humans in very close contact.
In 2009, the new Influenza A (H1N1) virus that emerged and led to a pandemic was designated as Influenza A (H1N1) pdm09 virus to distinguish it from the seasonal Influenza A (H1N1).

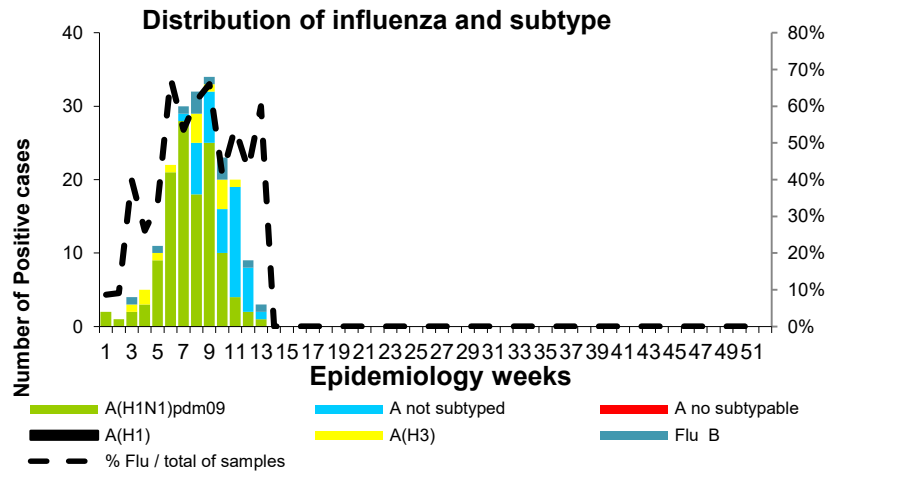
During EW 13 SARI activity remained below the seasonal threshold, similar to the previous seasons for the same period. Decreased influenza activity was reported; with influenza A(H1N1)pdm09 predominating in previous weeks



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



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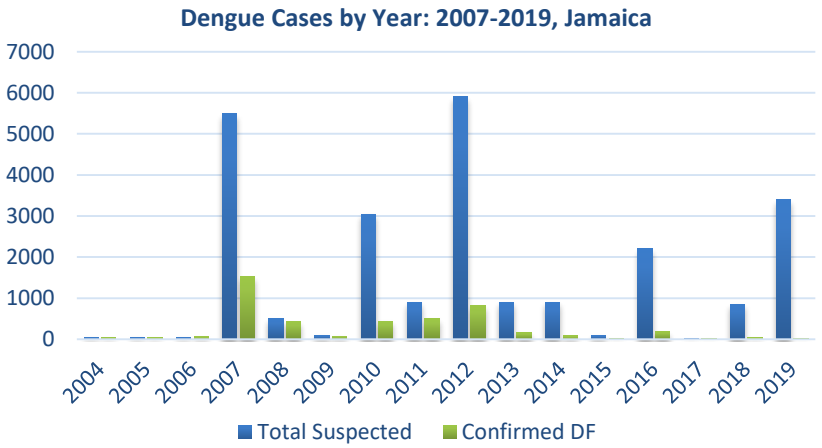
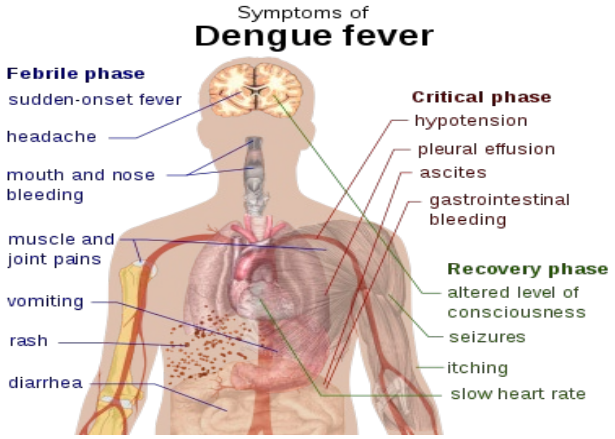
Dengue Bulletin

March 24-30, 2019 Epidemiological Week 13 | Epidemiological Week 13



Reported suspected and confirmed dengue with symptom onset in weeks 1-11, 2019

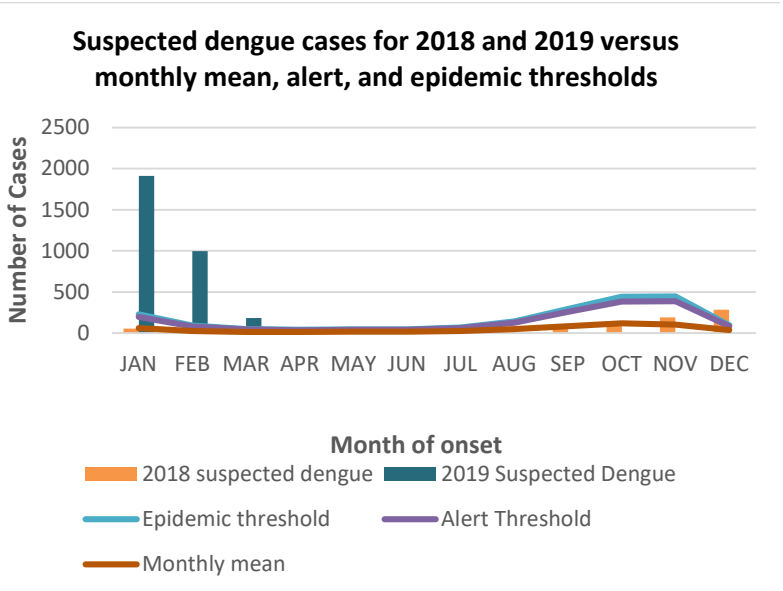
		2019		2018 YTD
		EW 13	YTD	
Total Suspected Dengue Cases		1	3297	1292
Lab Confirmed Dengue cases		0	16	0
CONFIRMED	*DHF/DSS	0	0	0
	Dengue Related Deaths	1	2	1



***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.**



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Gastroenteritis Bulletin

March 24-30, 2019 Epidemiological Week 13 | Epidemiological Week 13

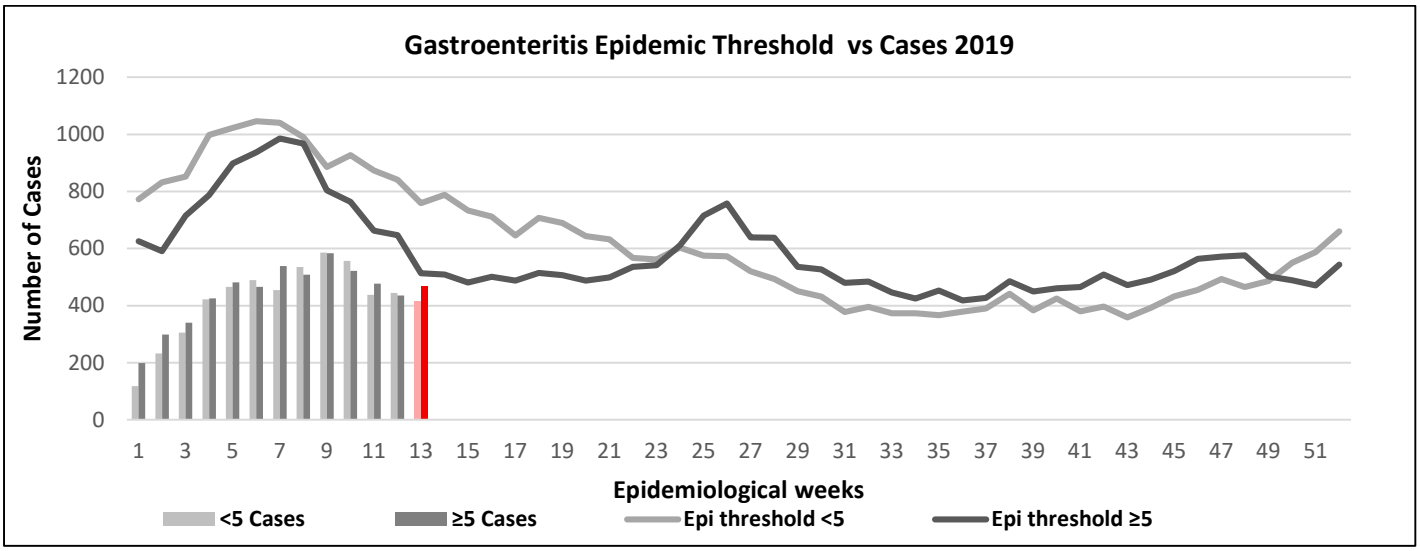
EW 13

Weekly Breakdown of Gastroenteritis cases

Year	EW 13			YTD		
	<5	≥5	Total	<5	≥5	Total
2019	415	468	883	5,465	5,745	11,210
2018	129	207	336	2,442	3,359	5,801

Gastroenteritis:
In epidemiological week 13, 2019, the total number of reported GE cases showed a 163% increase compared to EW 13 of the previous year.
The year to date figures showed a 93% increase in cases for the period.

Figure 1: Total Gastroenteritis Cases Reported 2018-2019



Total number of GE cases per parish up to Week 13 , 2019

Parishes	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC
<5	2151	154	67	263	439	315	425	115	247	178	547	259	305
≥5	1411	268	118	408	631	307	412	142	289	238	656	473	392

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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*

Corresponding Author / Presenter: *Dr Iyanna Wellington* at 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.