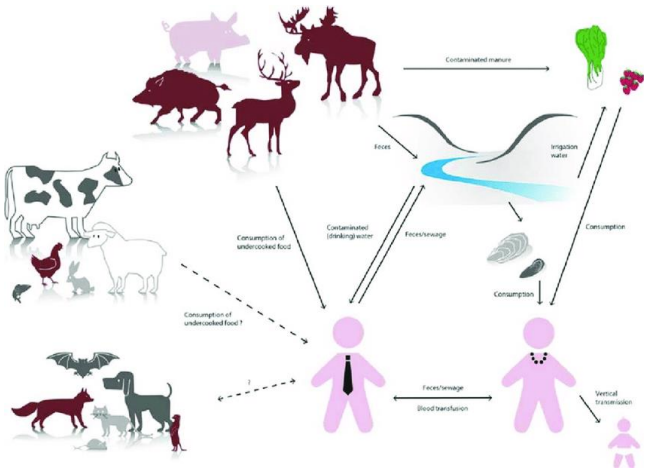
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Hepatitis E (Series 5 of 5)



Key facts

- Hepatitis E is a liver disease caused by infection with a virus known as hepatitis E virus (HEV).
- Every year, there are an estimated 20 million HEV infections worldwide, leading to an estimated 3.3 million symptomatic cases of hepatitis E (1).
- WHO estimates that hepatitis E caused approximately 44 000 deaths in 2015 (accounting for 3.3% of the mortality due to viral hepatitis).
- The virus is transmitted via the fecal-oral route, principally via contaminated water.
- Hepatitis E is found worldwide, but the disease is most common in East and South Asia.
- A vaccine to prevent hepatitis E virus infection has been developed and is licensed in China, but is not yet available elsewhere.

Transmission

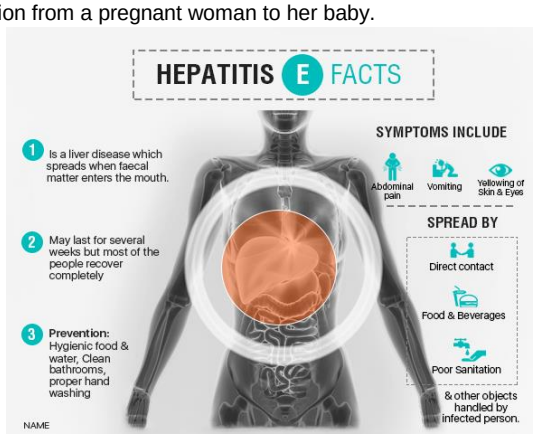
The hepatitis E virus is transmitted mainly through the fecal-oral route due to fecal contamination of drinking water. This route accounts for a very large proportion of clinical cases with this disease. The risk factors for hepatitis E are related to poor sanitation, allowing virus excreted in the faeces of infected people to reach drinking water supplies.

Other routes of transmission have been identified, but appear to account for a much smaller number of clinical cases. These routes of transmission include:

- ingestion of undercooked meat or meat products derived from infected animals (e.g. pork liver);
- transfusion of infected blood products; and
- vertical transmission from a pregnant woman to her baby.

Treatment

There is no specific treatment capable of altering the course of acute hepatitis E. As the disease is usually self-limiting, hospitalization is generally not required. Most important is the avoidance of unnecessary medications.



Acetaminophen/Paracetamol and medication against vomiting should not be given. However, hospitalization is required for people with fulminant hepatitis, and should also be considered for symptomatic pregnant women.

Immunosuppressed people with chronic hepatitis E benefit from specific treatment using ribavirin, an antiviral drug. In some specific situations, interferon has also been used successfully.

For more information on Hepatitis E please visit: https://www.who.int/news-room/fact-sheets/detail/hepatitis-e

EPI WEEK 5

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SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica

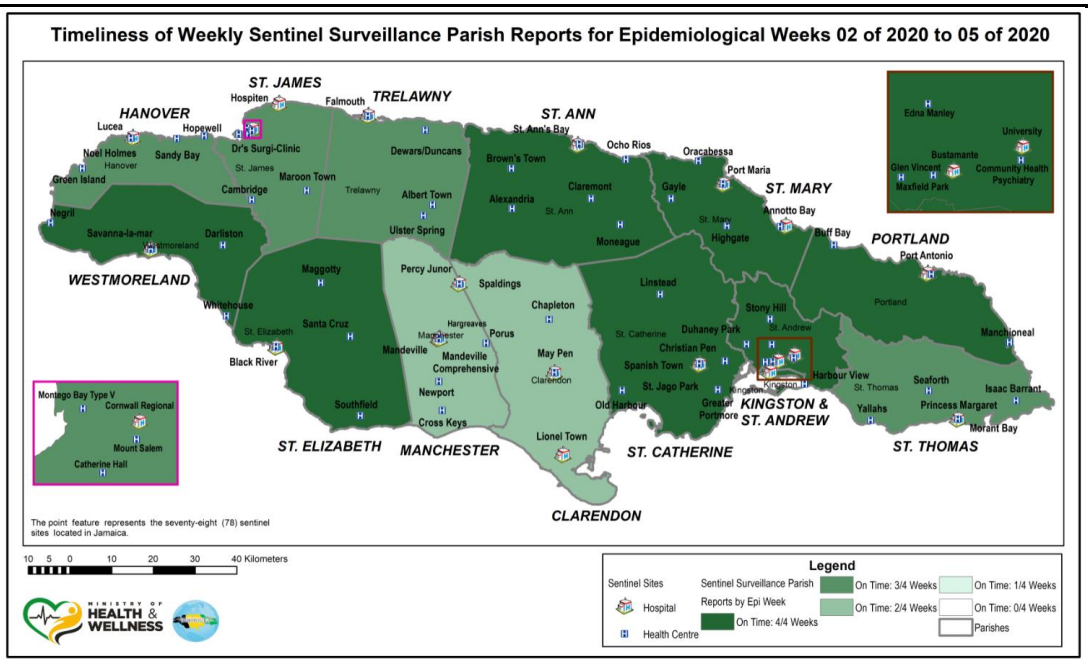
A syndromic surveillance system is good for early detection of and response to public health events.

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 2 to 5 of 2020

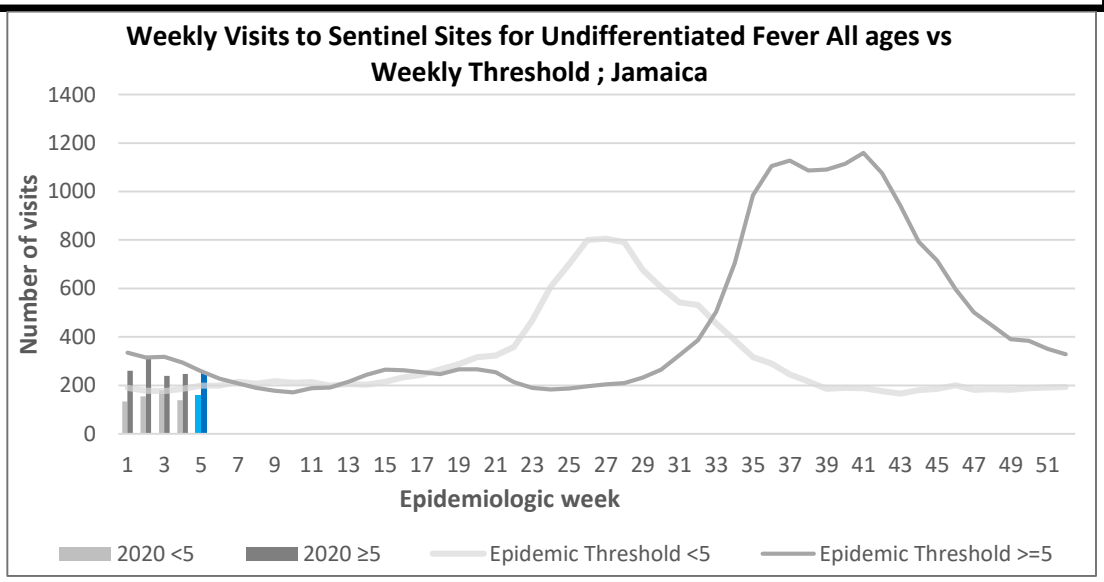
Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.



REPORTS FOR SYNDROMIC SURVEILLANCE

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

KEY
VARIATIONS OF BLUE SHOW CURRENT WEEK



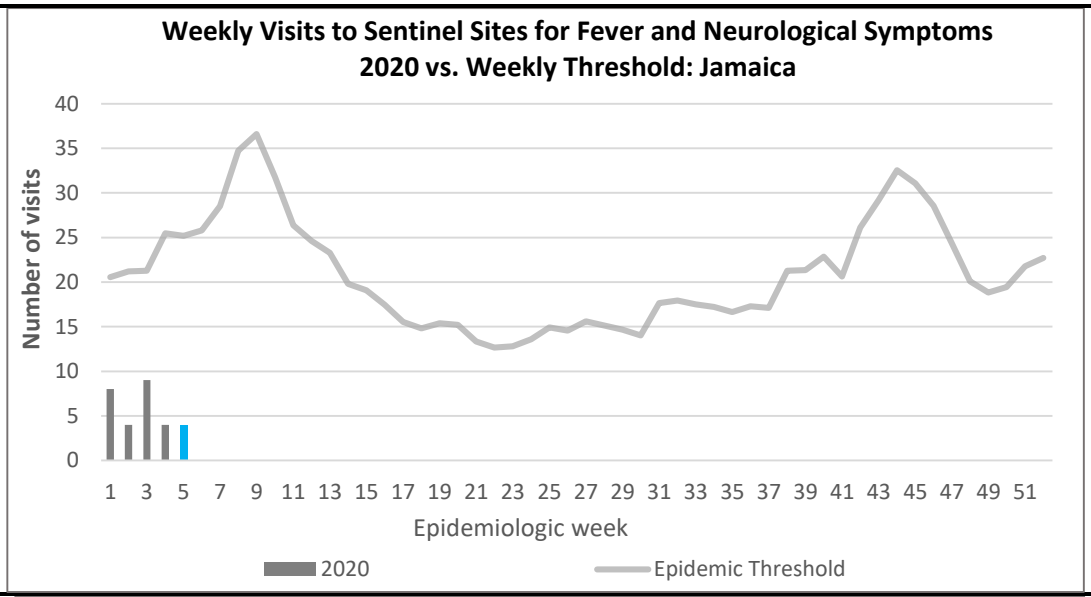
2 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

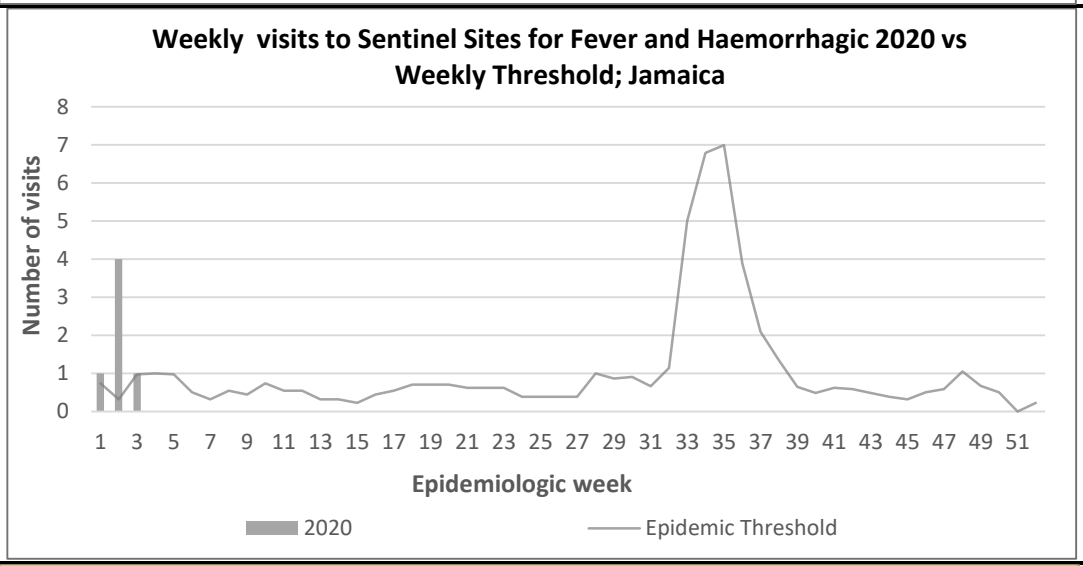
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL
Temperature of >38^{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).

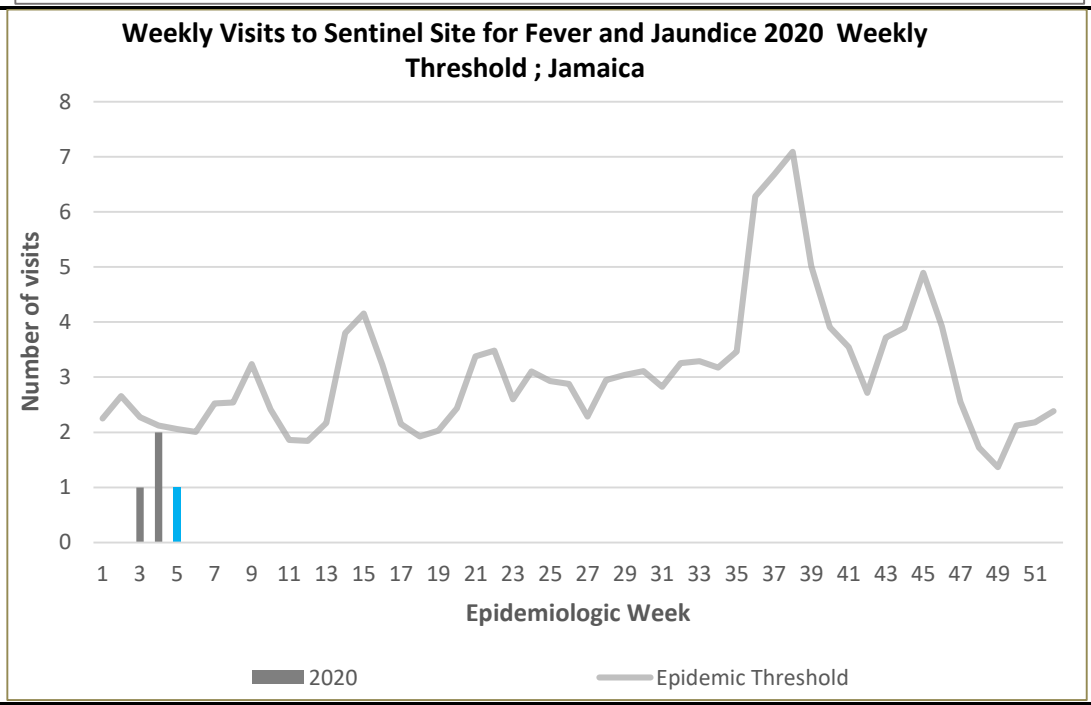


FEVER AND HAEMORRHAGIC
Temperature of >38^0*C* /100.4^0*F* (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE
Temperature of >38^0*C* /100.4^0*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.



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ACCIDENTS

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

KEY

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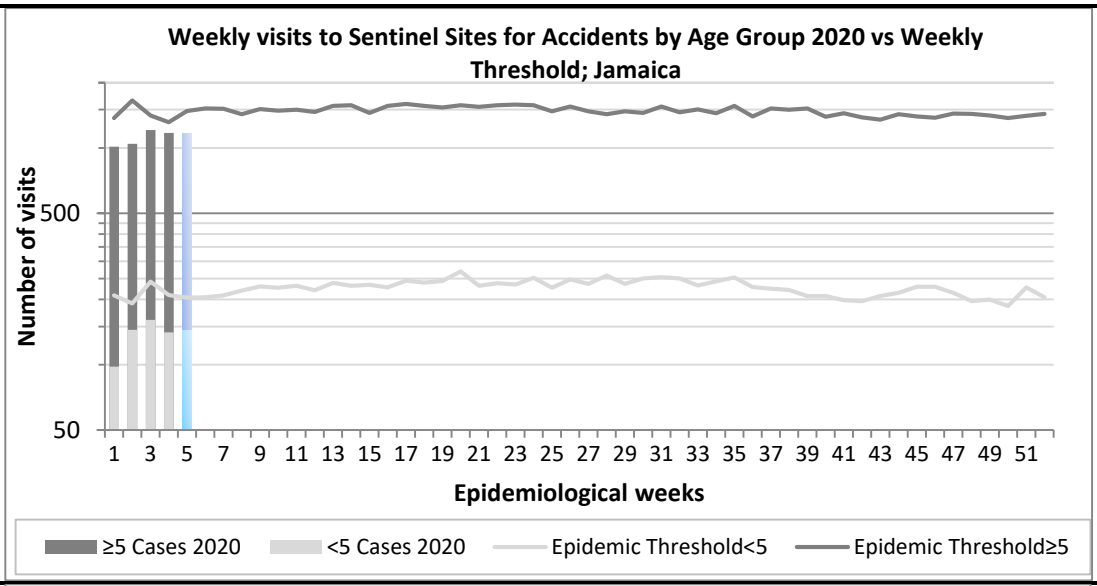
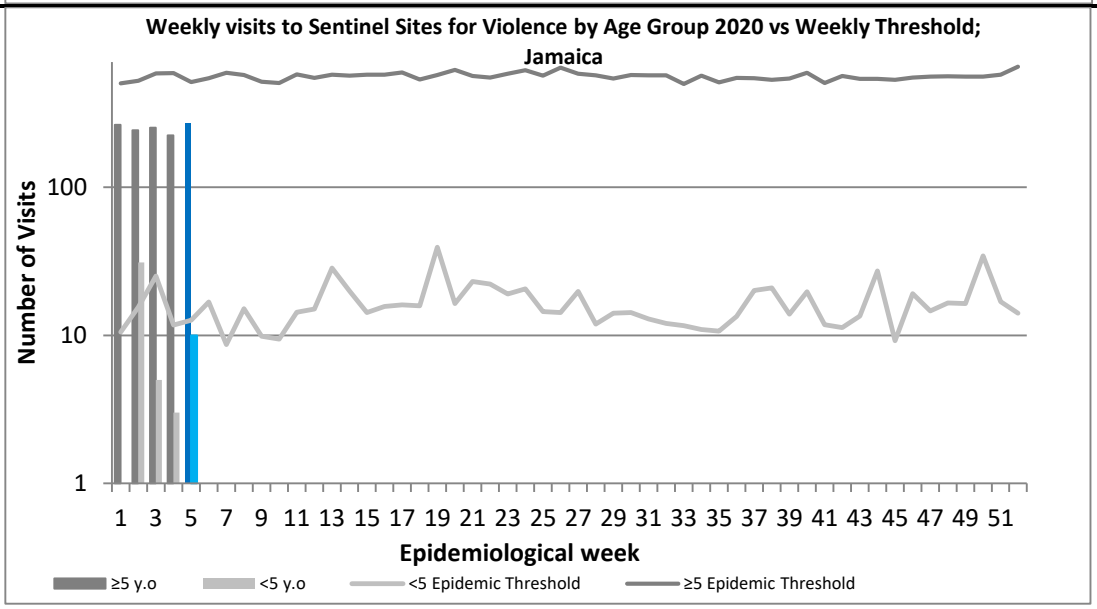


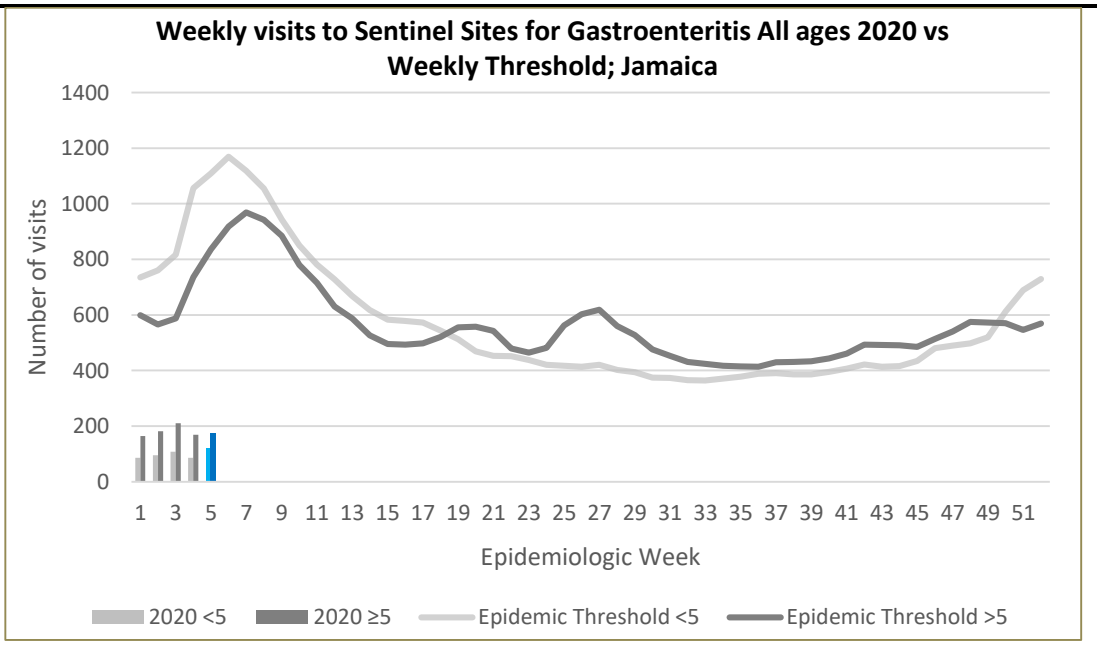
VIOLENCE

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



GASTROENTERITIS

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



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- CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS		Confirmed YTD CURRENT YEAR 2020	Confirmed YTD PREVIOUS YEAR 2019
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		5	6
	Cholera		0	0
	Dengue Hemorrhagic Fever*		NA	NA
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		0	1
	Hepatitis C		0	1
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis (Clinically confirmed)		0	1
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	4
	Ophthalmia Neonatorum		1	15
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		0	5
	Yellow Fever		0	0
	Chikungunya***		0	0
	Zika Virus****		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.

* Dengue Hemorrhagic Fever data include Dengue related deaths;

** Figures include all deaths associated with pregnancy reported for the period. * 2019 YTD figure was updated.

*** CHIKV IgM positive cases

**** Zika PCR positive cases

NA- Not Available

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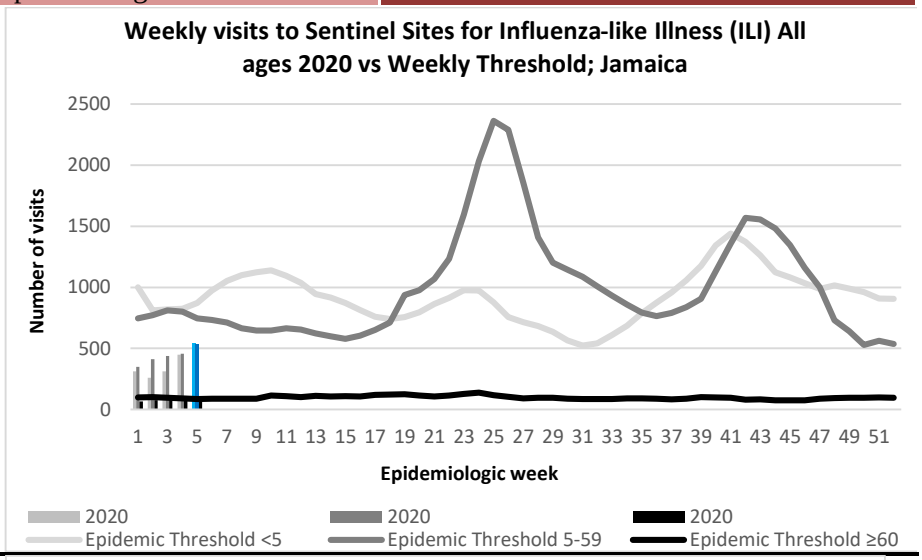
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 05

January 26, 2020– February 1, 2020 Epidemiological Week 05

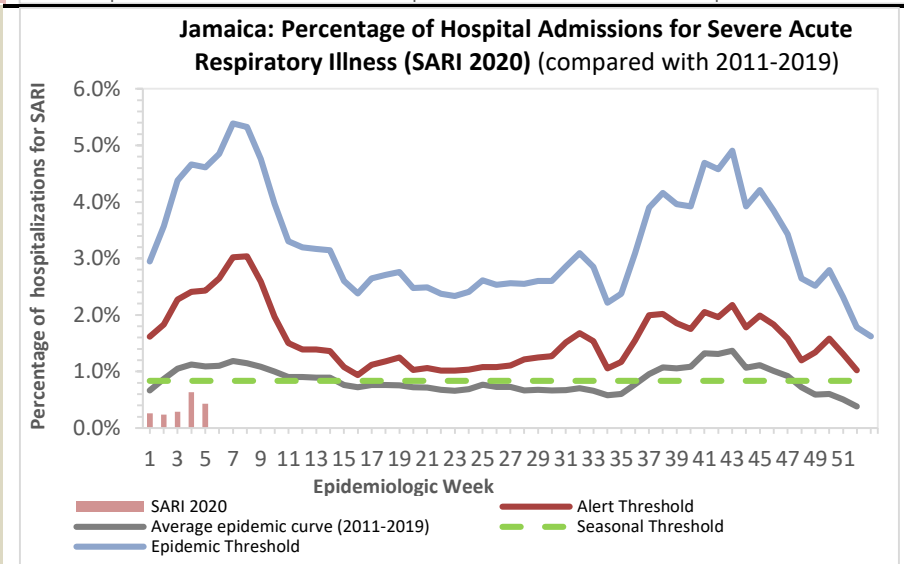
	EW 05	*YTD*
SARI cases	*7*	*31*
Total Influenza positive Samples	*11*	*26*
Influenza A	*3*	*16*
H3N2	*0*	*1*
H1N1pdm09	*0*	*9*
Not subtyped	*3*	*6*
Influenza B	*8*	*10*
Parainfluenza	*0*	*0*



Epi Week Summary

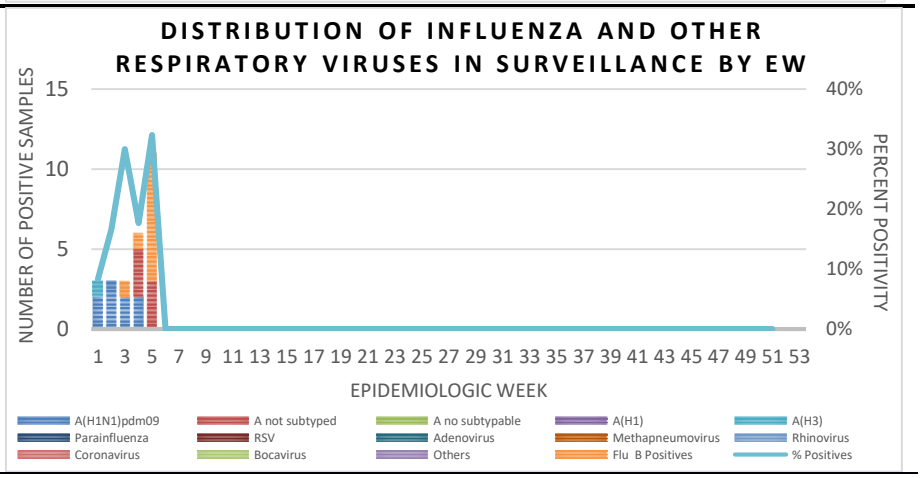
During EW 05, 7 (seven) SARI admissions were reported.

32.4% positivity for EW 05



Caribbean Update EW 05

Overall, influenza activity is moderate in the sub-region. In Puerto Rico, influenza-like illness (ILI) activity remained high. In Jamaica, Influenza B and Influenza viruses are co-circulating; severity indicators remained low.



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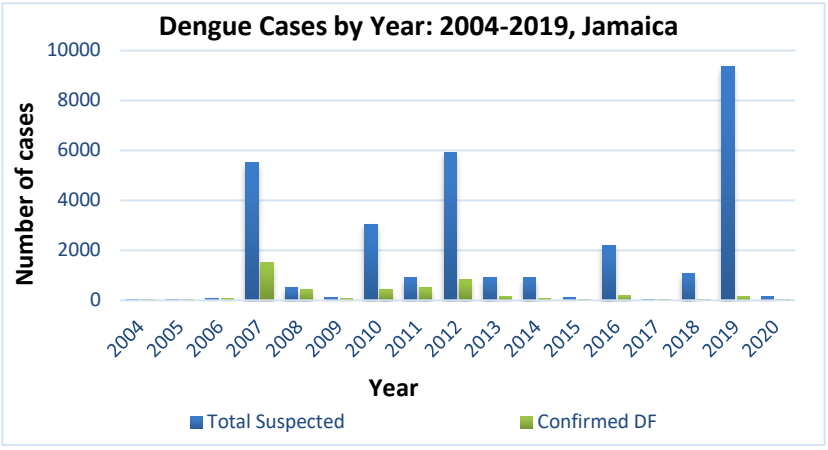
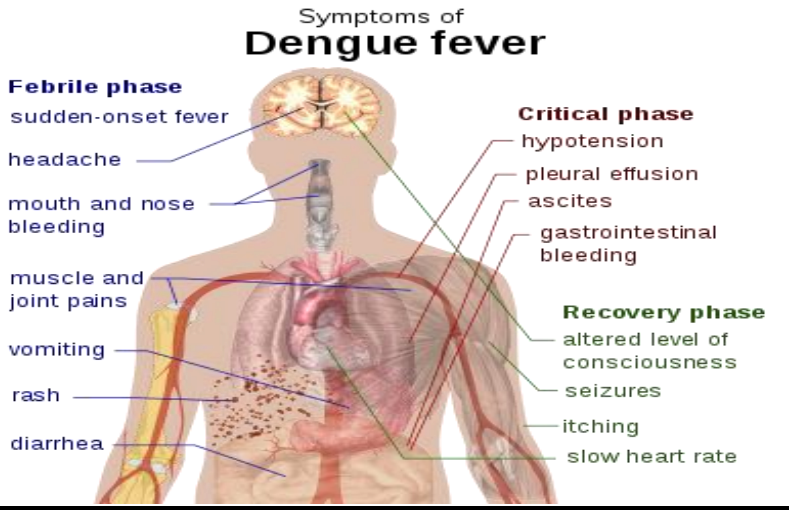
Dengue Bulletin

January 26– February 1, 2020 Epidemiological Week 05 | Epidemiological Week 05



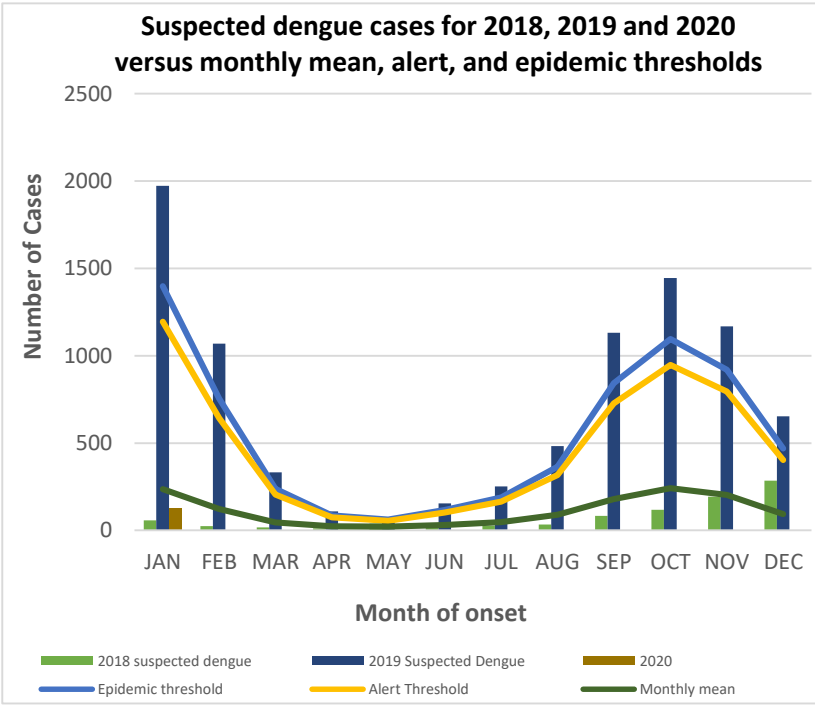
Reported suspected and confirmed dengue with symptom onset in week 5 of 2020

	2020	
	EW 5	YTD
Total Suspected Dengue Cases	1**	133**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**



Points to note:

- ** figure as at February 6, 2020
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

ABSTRACT

A comparison of body composition and muscle quality as correlates of performance in junior elite track and field athletes.

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Background: Investigating correlates of performance specific to the junior athletic demographic, may improve training adaptability thereby reducing the high incidence of sports injuries.

Objective: To compare changes in body composition and muscle quality as correlates of performance in elite junior track and field athletes.

Method: Fifty-four (54) junior elite track and field athletes participated in the study. Body composition was assessed using the two-compartment model. Muscle thickness (MT) and echo intensity (EI) were used to assess muscle quality. Measurements were taken at two phases of the track and field season: preparative training phase (preseason) and in-season phase (pre-competition and peak competition). Scoring points of the International Association of Athletics Federation (IAAF) were used as an individual measure of performance.

Results: Approximately 54.50% of the athletes had improved performance, 45.50% did not. Change in waist MT significantly correlated (r=-0.43) with performance. A significant positive correlation between improvement in performance and favorable changes in thigh MT was observed for both jump (r=0.49) and middle distance (r= -0.833) athletes. Improvement in thigh EI significantly correlated (r= -0.82,) with performance in middle distance athletes. Body composition variables significantly correlated with physiological fitness, however no statistical correlation was observed with competition performance.

Conclusion: Improvements in performance was predominantly associated with muscle quality. It may then be assumed that changes in muscle quality over an athletic season may greater influence athletic performance over changes in body composition. As such, coaches should consider the incorporation of these measures in training regimes for performance assessment and evaluation of training adaptability in junior elite athletes.

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