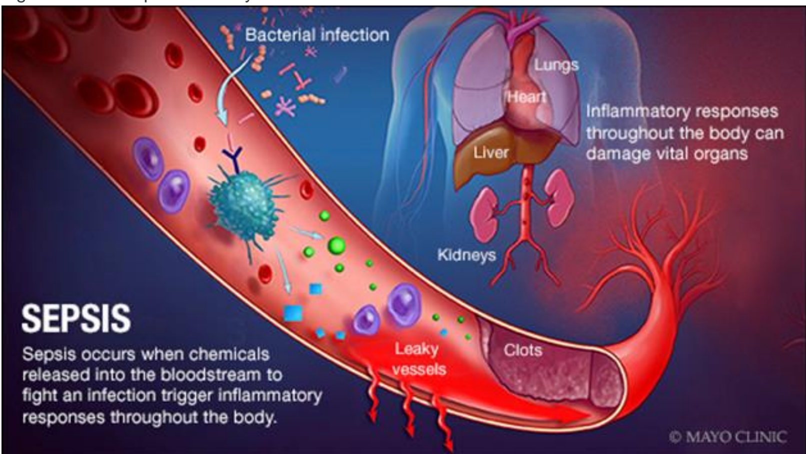
WEEKLY EPIDEMIOLOGY BULLETIN
NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

-Sepsis-

Background

Sepsis is a life-threatening organ dysfunction caused by a dysregulated host response to infection *(7)*. If not recognized early and managed promptly, it can lead to septic shock, multiple organ failure and death. Any type of infectious pathogen can potentially cause sepsis. Antimicrobial resistance is a major factor determining clinical unresponsiveness to treatment and rapid evolution to sepsis and septic shock. Sepsis patients with resistant pathogens have been found to have a higher risk of hospital mortality.



Key facts

- Sepsis arises when the body's response to an infection injures its own tissues and organs, potentially leading to death or significant morbidity.
- The global epidemiological burden of sepsis is difficult to ascertain. It is estimated to affect more than 30 million people worldwide every year, potentially leading to 6 million deaths (1). The burden of sepsis is most likely highest in low- and middle-income countries.
- It is estimated that 3 million newborns and 1.2 million children suffer from sepsis globally every year (2). Three out of every ten deaths due to neonatal sepsis are thought to be caused by resistant pathogens (3).
- One in ten deaths associated with pregnancy and childbirth is due to maternal sepsis with over 95% of deaths due to maternal sepsis occurring in low- and middle-income countries (4). One million newborn deaths are associated with maternal infection, such as maternal sepsis, each year (5).
- Sepsis can be the clinical manifestation of infections acquired both in the community setting or in health care facilities. Health care-associated infections are one of, if not the most frequent type of adverse event to occur during care delivery and affect hundreds of millions of patients worldwide every year (6). Since these infections are often resistant to antibiotics, they can rapidly lead to deteriorating clinical conditions.

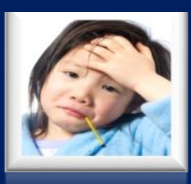
Who is at risk?

Anyone affected by an infection can progress to sepsis conditions but some vulnerable populations such as elderly people, pregnant women, neonates, hospitalized patients, and people with

HIV/AIDS, liver cirrhosis, cancer, kidney disease, autoimmune diseases and no spleen, are at higher risk (8).

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

EPI WEEK 43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SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica

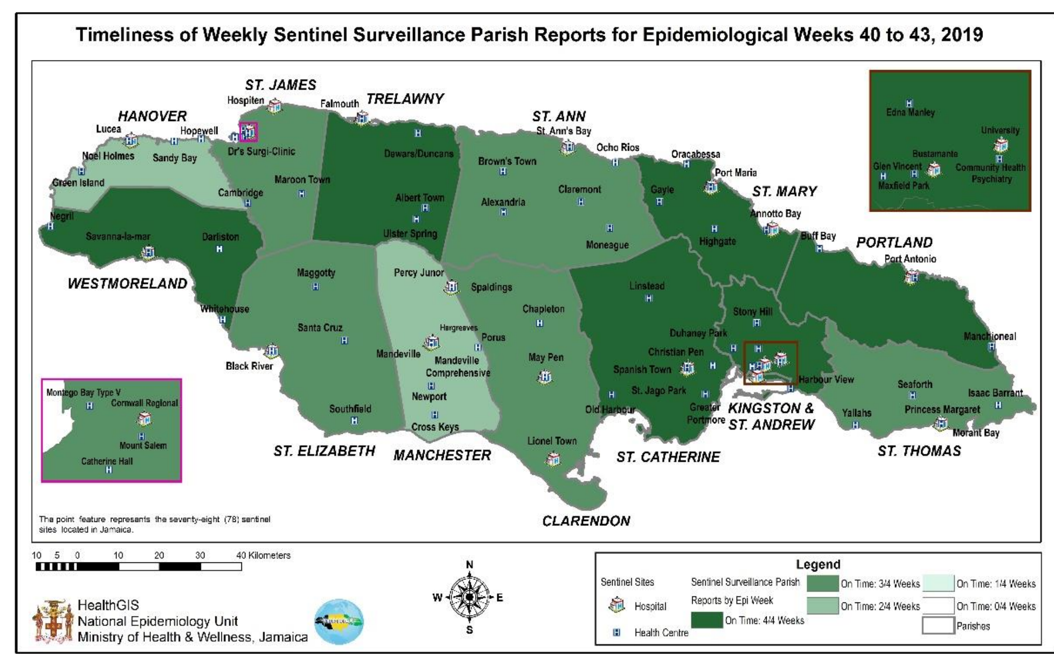
A syndromic surveillance system is good for early detection of and response to public health events.

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 40 to 43

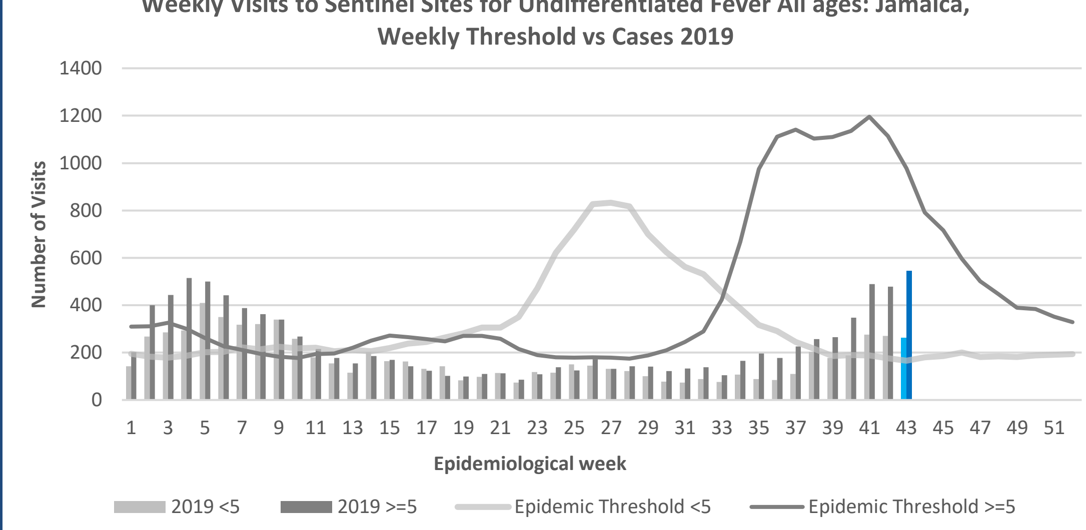
Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.



REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of >38°C /100.4°F (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

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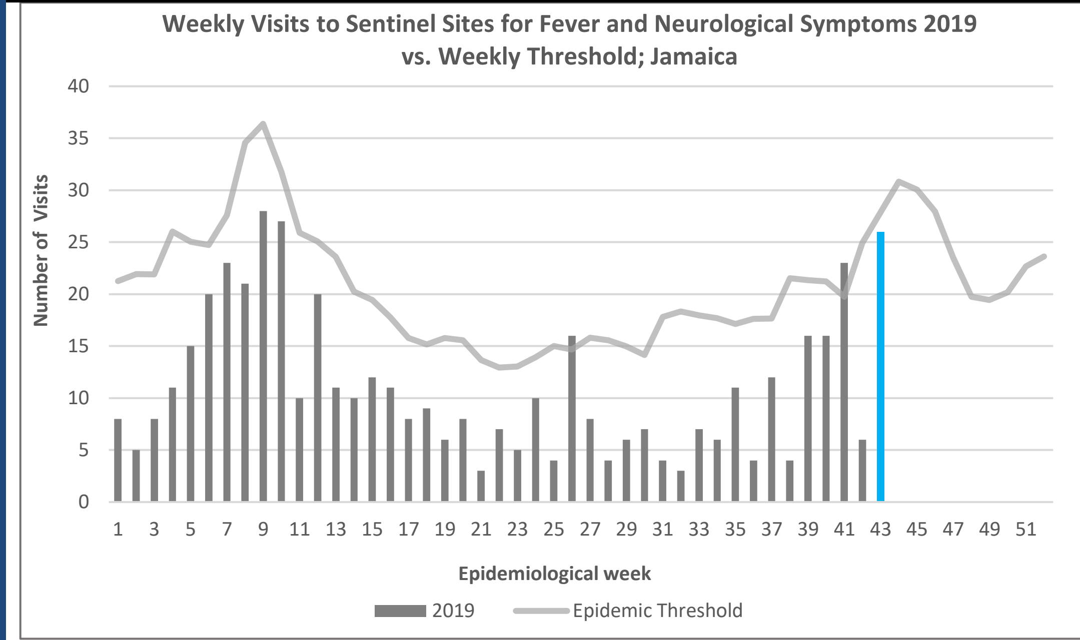
FEVER AND NEUROLOGICAL

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 >38⁰*C* /100.4⁰*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

Number of Visits

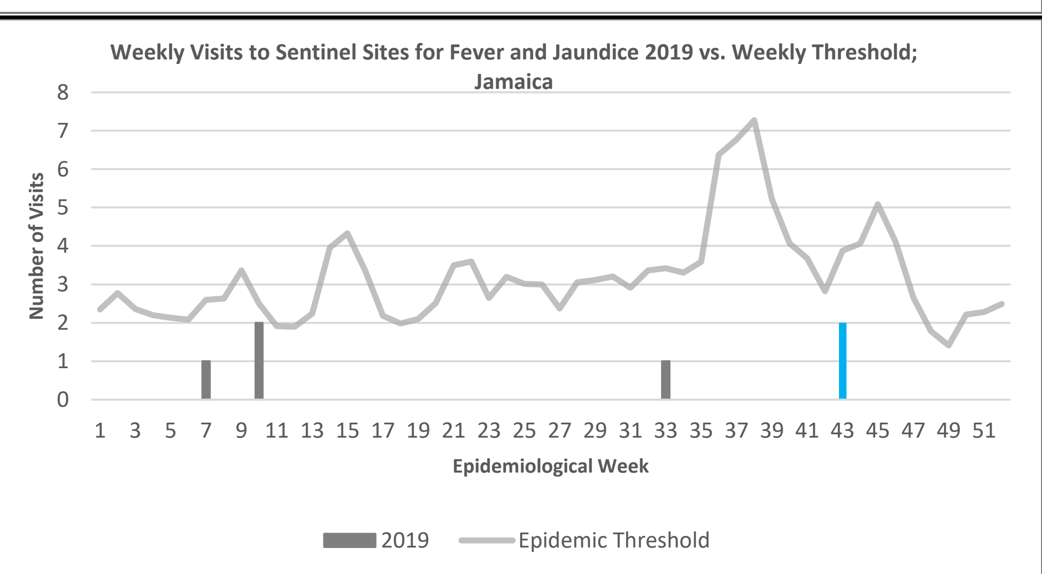
Epidemiological week

2019 Epidemic Threshold

FEVER AND JAUNDICE

Temperature of >38⁰*C* /100.4⁰*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.



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ACCIDENTS

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

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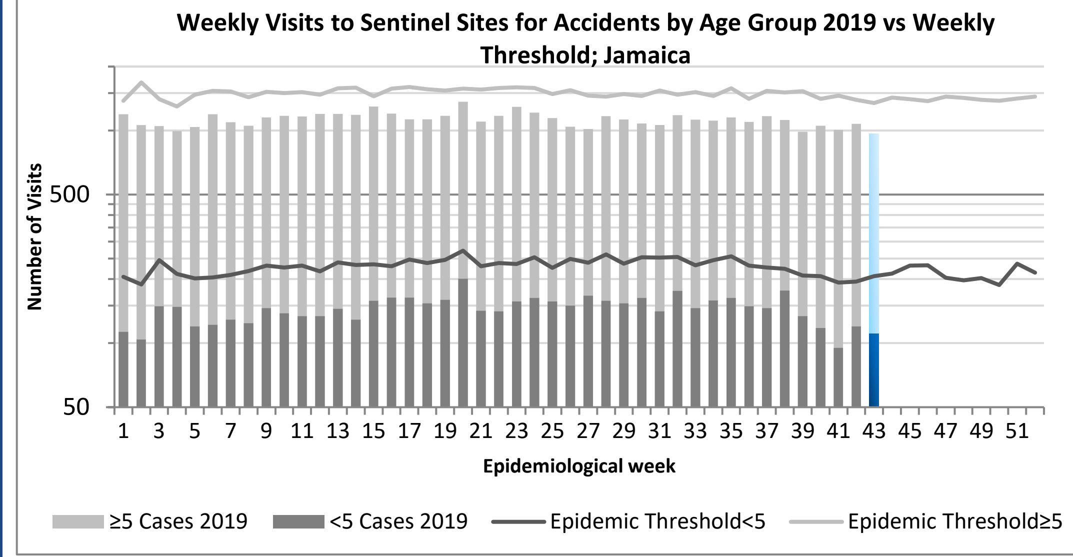
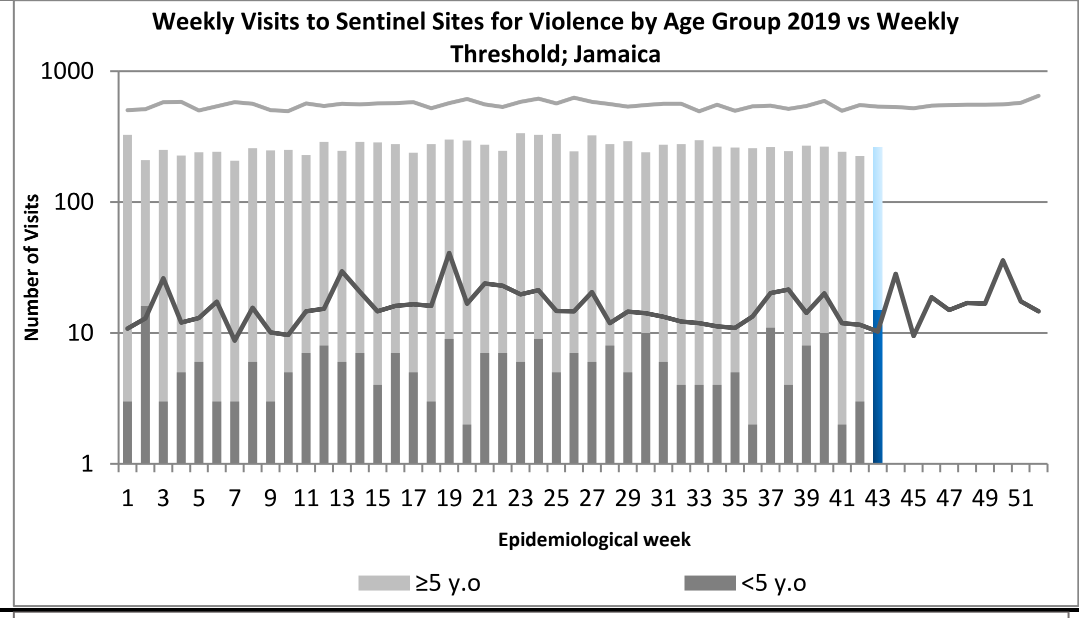


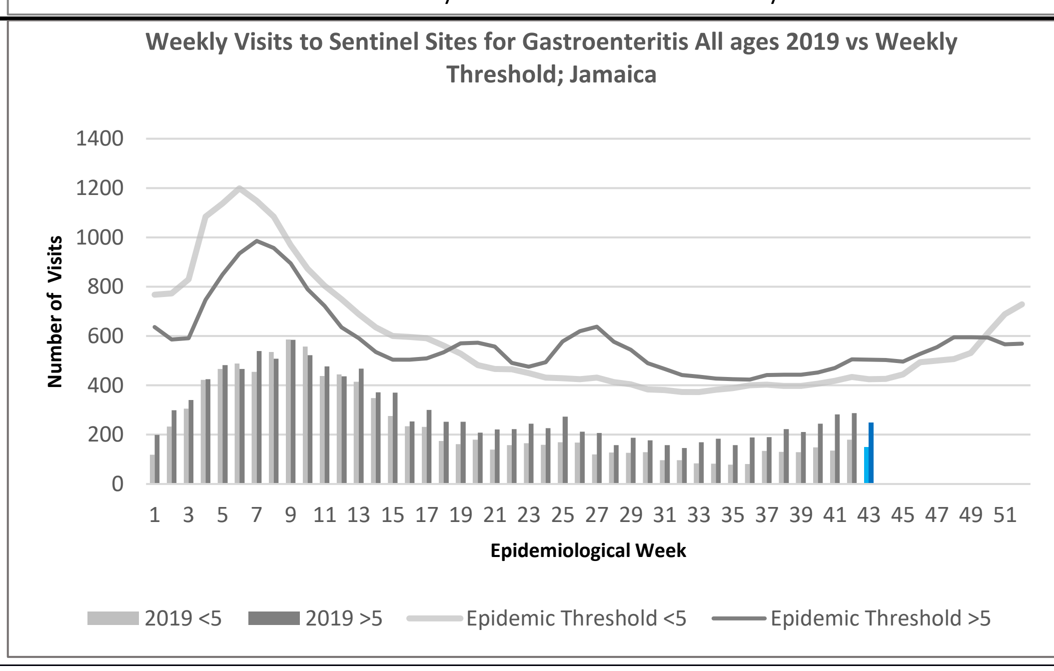
VIOLENCE

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	PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	60	169
	Cholera	0	0
	Dengue Hemorrhagic Fever*	NA	NA
	Hansen's Disease (Leprosy)	0	0
	Hepatitis B	23	84*****
	Hepatitis C	2	7
	HIV/AIDS	NA	NA
	Malaria (Imported)	0	2
	Meningitis (Clinically confirmed)	20	37
EXOTIC/ UNUSUAL	Plague	0	0
H IGH MORBIDIT/ 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
	Fever and Rash — Rubella	0	0
	Maternal Deaths**	52	54
	Ophthalmia Neonatorum	161	261
	Pertussis-like syndrome	0	0
	Rheumatic Fever	0	0
	Tetanus	0	0
	Tuberculosis	48	68
	Yellow Fever	0	0
	Chikungunya***	2	10
	Zika Virus****	0	1

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.

* Dengue Hemorrhagic Fever data include Dengue related deaths;

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

*** CHIKV IgM positive cases

**** Zika PCR positive cases

***** Late reports received

NA- Not Available

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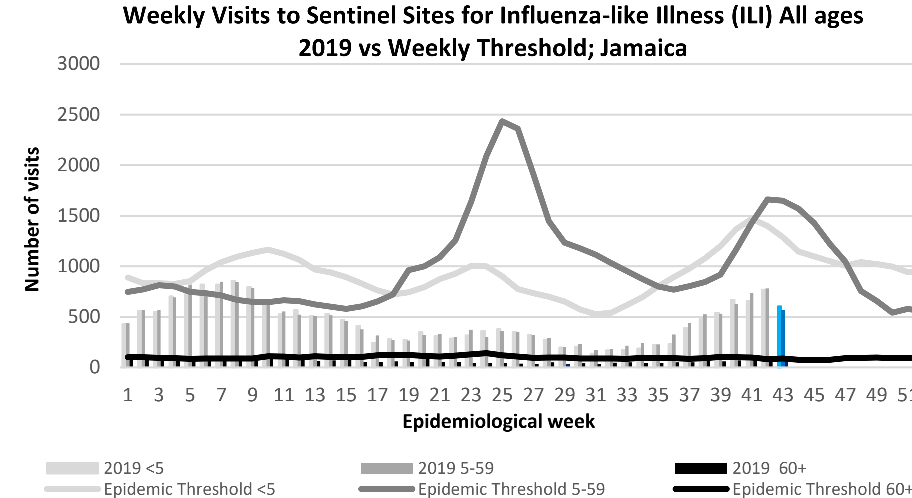
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 43

October 20– October 26, 2019 Epidemiological Week 43

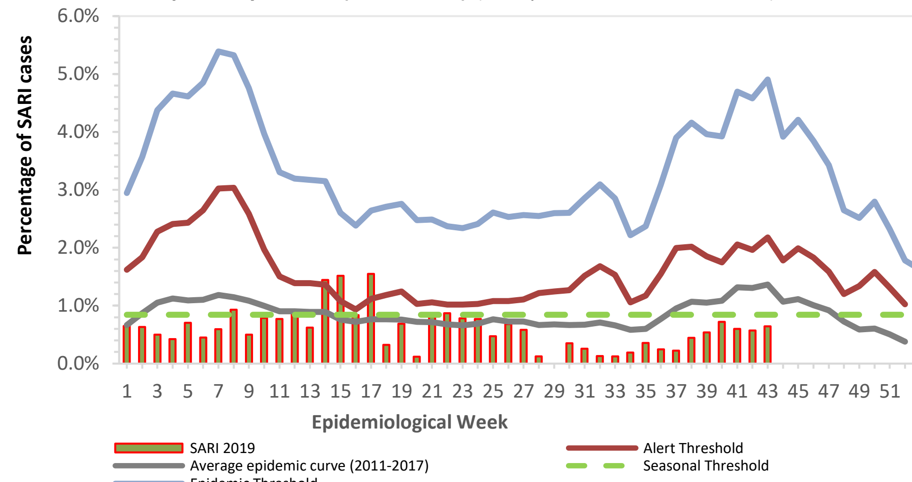
	EW 43	YTD
SARI cases	11	436
Total Influenza positive Samples	10	418
Influenza A	10	376
H3N2	8	140
H1N1pdm09	0	226
Not subtyped	2	7
Influenza B	0	42
Parainfluenza	0	7



Epi Week Summary

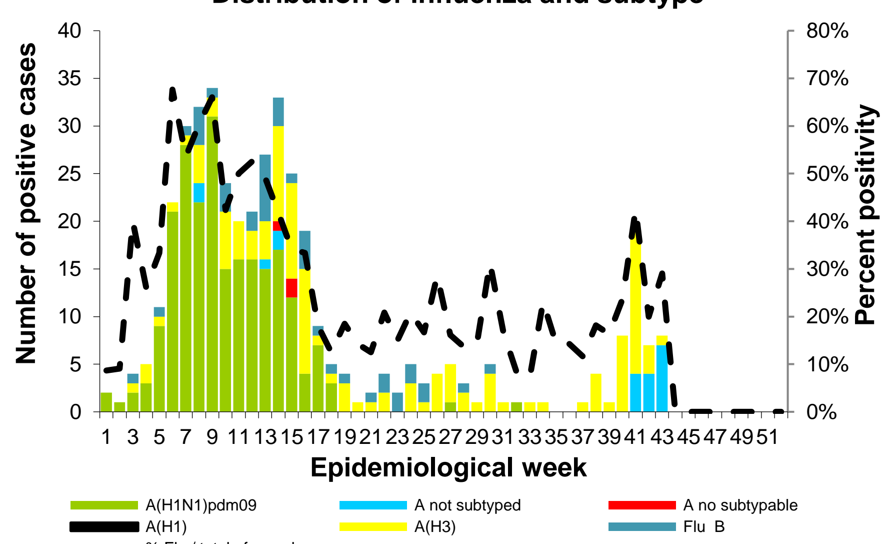
During EW 43, 10 cases of influenza were detected. Percent positivity is 19.6%.

DuringEW 43, 11 (eleven) SARI admissions were reported.



Caribbean Update EW 43

Influenza and SARI activity continued at inter-seasonal levels with influenza A(H3N2), A(H1N1)pdm09, and influenza B viruses co-circulating in the subregion. In Jamaica, influenza activity has increased in recent weeks with influenza A(H3N2) virus predominance; SARI cases remain low. Cuba recorded increased influenza activity in recent weeks with influenza A and B viruses co-circulating, and SARI cases at a moderate level of activity



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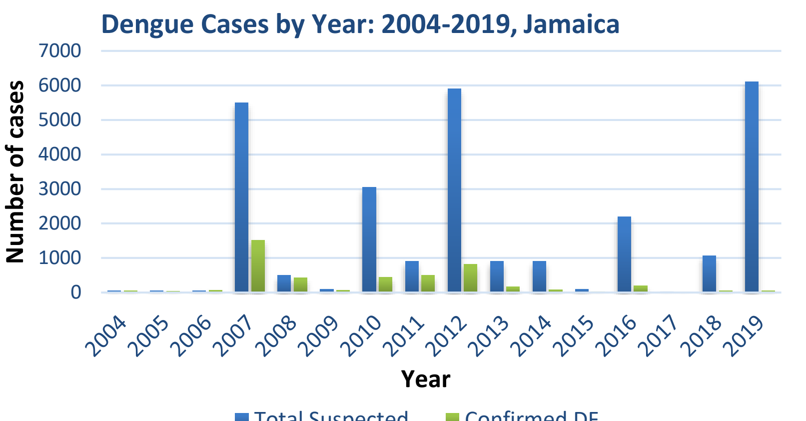
Dengue Bulletin

October 20– October 26, 2019 Epidemiological Week 43

Epidemiological Week 43



Reported suspected and confirmed dengue with symptom onset in weeks 1-43 2019

		2019		2018 YTD
		EW 43	YTD	
Total Suspected Dengue Cases		10	**6114	345
Lab Confirmed Dengue cases		0	**52	4
CONFIRMED	Dengue Related Deaths	0	**15	0

Symptoms of

Dengue fever

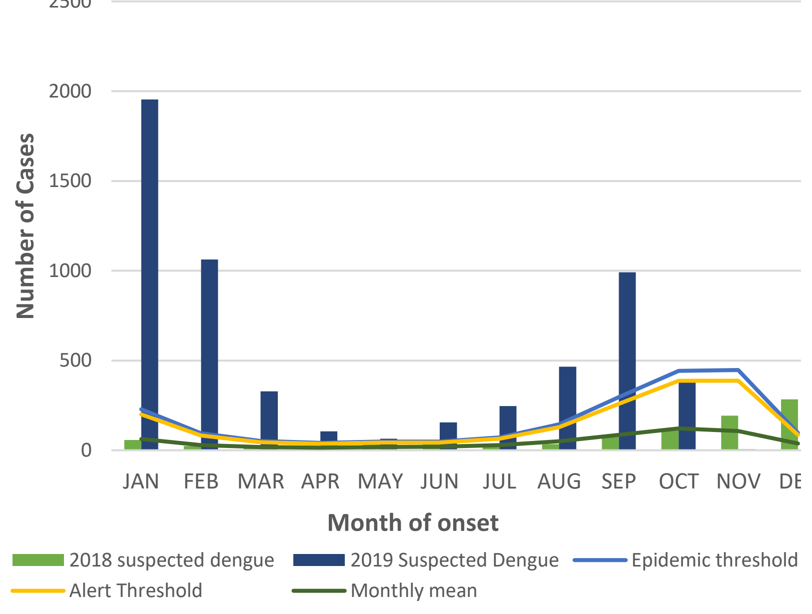
Febrile phase
- sudden-onset fever
- headache
- mouth and nose bleeding
- muscle and joint pains
- vomiting
- rash
- diarrhea

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 November 6, 2019
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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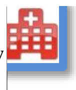

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RESEARCH PAPER

ABSTRACT

Knowledge, Attitudes, and Practices regarding screening for Cervical Cancer of Female Health Care Workers age 20-60 years employed to Manchester Health Services.

Thompson-Nelson K
Southern Regional Health Authority

Recent statistics highlighted that there is a problem of low compliance in cervical cancer screening among women of reproductive age in Manchester.

Objectives: To assess the knowledge, attitudes and practices of female health care workers regarding screening for cervical cancer, to assess level of compliance to the screening guidelines and to identify barriers to screening.

Methods: This study was a cross-sectional descriptive one, utilizing both quantitative and qualitative designs. Quantitative design was done using a researcher to administer the questionnaires. These study participants were selected using random sampling (N=150) and the staff lists were coded using numbers to ensure anonymity of subjects. The qualitative design included in-depth interviews of four participants who were not included in the quantitative phase of the study.

Results: There was a high awareness of cervical cancer and Pap smear among the group in that 99% and 100% respectively heard about cervical cancer and Pap smear. More than 50% scored, "poor to very poor." regarding knowledge of risk factors for the disease. Of the sample 55% were in compliance with the cervical cancer screening guidelines and 91% displayed a positive attitude to screening while 89% had ever done a Pap smear. Fear, comfort and privacy were the most outstanding barriers to screening mentioned, and the majority of the smears were done at private facilities.

Conclusion: This study has revealed information that will help Coordinators at the National and Local level to devise strategies necessary to strengthen the existing screening programme, educate re risk factors of the disease as well as to empower health care workers to improve compliance to the screening guidelines and uptake of screening in the public health care facilities.