## 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



 $\rm HIV/AIDS,$  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



SYNDROMES

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# SENTINEL SYNDROMIC SURVEILLANCE



ETI

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.

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.



Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica,

Weekly Threshold vs Cases 2019

## **REPORTS FOR SYNDROMIC SURVEILLANCE**

#### **FEVER**

Temperature of >38°C /100.4<sup>o</sup>*F* (or recent history of fever) with or without an obvious diagnosis or focus of

1400

1200



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FEVER AND NEUROLOGICAL

Temperature of >38°C /100.4<sup>o</sup>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** 

date.

HAEMORRHAGIC

Temperature of >38°C

/100.4°F (or recent history of

fever) in a previously healthy

(bleeding) manifestation with

or without jaundice. Visits for

symptoms were reported in

person presenting with at

least one haemorrhagic

Fever and Haemorrhagic

weeks 4 to 8 only, year to

**FEVER AND JAUNDICE** 

previously healthy person presenting with jaundice.

Temperature of  $>38^{\circ}C/100.4^{\circ}F$ 

(or recent history of fever) in a

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

were reported in weeks 7 and 10

per week plus 2 standard

deviations. Visits to sentinel

sites for Fever and Jaundice

### ISSN 0799-3927 Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs. Weekly Threshold; Jamaica









All clinical

sites

only, year to date.

NOTIFICATIONS-

**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued





#### ISSN 0799-3927

### CLASS ONE NOTIFIABLE EVENTS

#### Comments

			Confirmed YTD		AFP Field Guides
	CLASS 1 EV	/ENTS	CURRENT YEAR	PREVIOUS YEAR	from WHO indicate that for an effective
T	Accidental Poisoning		60	169	detection rates for
NO	Cholera		0	0	AFP should be
IRNATI EST	Dengue Hemorrhagic Fever*		NA	NA	population under 15 years old (6 to 7) cases annually.
	Hansen's Disease (Leprosy)		0	0	
IER	Hepatitis B		23	84****	
NL /I	Hepatitis C		2	7	Pertussis-like
ATIONA	HIV/AIDS		NA	NA	syndrome and Tetanus are
	Malaria (Imported)		0	2	clinically confirmed
Z	Meningitis (Clinically confirmed)		20	37	classifications.
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever
λI	Meningococcal Meningitis		0	0	data include Dengue
GH	Neonatal Tetanus		0	0	related deaths;
H I ORI ORI	Typhoid Fev	er	0	0	** Figures include
ΣΣ	Meningitis H/Flu		0	0	all deaths associated with pregnancy reported for the period.
	AFP/Polio		0	0	
	Congenital Rubella Syndrome		0	0	
$\sim$	Congenital S	yphilis	0	0	*** CHIKV IgM
IME	Fever and	Measles	0	0	cases
RAM	Rash	Rubella	0	0	**** Zika
SPECIAL PROG	Maternal Deaths**		52	54	***** Late reports
	Ophthalmia Neonatorum		161	261	received
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		48	68	
	Yellow Fever		0	0	
	Chikungunya	a***	2	10	
	Zika Virus <sup>***</sup>	*	0	1	NA- Not Available



All clinical sites



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### NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

October 20– October 26, 2019 Epidemiological Week 43

	<i>EW 43</i>	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.



Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2019) (compared with 2011-2018)

2019 5-59

Epidemic Threshold 5-59



#### 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 cocirculating, and SARI cases at a moderate level of activity



NOTIFICATIONS-All clinical sites INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

2019 <5

Epidemic Threshold <5

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued SENTINEL REPORT- 78 sites. Automatic reporting

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2019 60+

Epidemic Threshold 60+

*EW 43* 

# Dengue Bulletin

October 20- October 26, 2019 Epidemiological Week 43

#### Epidemiological Week 43





with symptom onset in weeks 1-43 2019							
	2019						
	EW 43	YTD	YTD				
Total Suspecto Case	10	**6114	345				
Lab Confirme case	0	**52	4				
CONFIRMED	Dengue Related Deaths	0	**15	0			

### **Points to note:**

- **\*\*figure as at November** 6,2019
- **Only PCR positive dengue** 0 cases are reported as confirmed.
- IgM positive cases are 0 classified as presumed dengue.



#### Suspected dengue cases for 2018 and 2019 versus monthly mean, alert, and epidemic thresholds



- All clinical sites

NOTIFICATIONS-

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HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



# **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.



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All clinical sites



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HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

