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

Vector-Borne Diseases Series 1 of 10: Yellow Fever

Fact Sheet: 1. Yellow fever is an acute viral haemorrhagic disease transmitted by infected mosquitoes. The "yellow" in the name refers to the jaundice that affects some patients. 2. Symptoms of yellow fever include fever, headache, jaundice, muscle pain, nausea, vomiting and fatigue. 3. A small proportion of patients who contract the virus develop severe symptoms and approximately half of those die within 7 to 10 days. 4. The virus is endemic in tropical areas of Africa and Central and South America. 5. Large epidemics of yellow fever occur when infected people introduce the virus into heavily populated areas with high mosquito density and where most people have little or no immunity, due to lack of vaccination. In these conditions, infected mosquitoes of the Aedes aegypti specie transmit the virus from person to person. 6. Yellow fever is prevented by an extremely effective vaccine, which is safe and affordable. A single dose of yellow fever vaccine is sufficient to confer sustained immunity and life-long protection against yellow fever disease. A booster dose of the vaccine is not needed. The vaccine provides effective immunity within 10 days for 80-100% of people vaccinated, and within 30 days for more than 99% of people vaccinated. 7. Good supportive treatment in hospitals improves survival rates. There is currently no specific anti-viral drug for yellow fever. 8. The Eliminate Yellow fever Epidemics (EYE) Strategy launched in 2017 is an unprecedented initiative. With more than 50 partners involved, the EYE partnership supports 40 at-risk countries in Africa and the Americas to prevent, detect, and respond to yellow fever suspected cases and outbreaks. The partnership aims at protecting at-risk populations, preventing international spread, and containing outbreaks rapidly. By 2026, it is expected that more than 1 billion people will be protected against the disease.

Transmission: The yellow fever virus is an arbovirus of the flavivirus genus and is transmitted by mosquitoes, belonging to the Aedes and Haemogogus species. The different mosquito species live in different habitats - some breed around houses (domestic), others in the jungle (wild), and some in both habitats (semi-domestic). There are 3 types of transmission cycles: **1**. Sylvatic (or jungle) yellow fever: In tropical rainforests, monkeys, which are the primary reservoir of yellow fever, are bitten by wild mosquitoes of the Aedes and Haemogogus species, which pass the virus on to other monkeys. Occasionally humans working or travelling in the forest are bitten by infected mosquitoes and develop yellow fever. **2**. Intermediate yellow fever: In this type of transmission, semi-domestic mosquitoes (those that breed both in the wild and around households) infect both monkeys and people. Increased contact between people and infected mosquitoes leads to increased transmission and many separate villages in an area can develop outbreaks at the same time. This is the most common type of outbreak in Africa. **3**. Urban yellow fever: Large epidemics occur when infected people introduce the virus into heavily populated areas with high density of Aedes aegypti mosquitoes and where most people have little or no immunity, due to lack of vaccination or prior exposure to yellow fever. In these conditions, infected mosquitoes transmit the virus from person to person.





Released June 07, 2021

SENTINEL SYNDROMIC SURVEILLANCE Sentinel Surveillance in





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.



REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

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



KEY VARIATIONS OF **BLUE** SHOW CURRENT WEEK

sites



Epidemic Threshold <5

Epidemic Threshold >=5

2 NOTIFICATIONS-All clinical

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

2021 <5



2021 ≥5

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



Released June 07, 2021

FEVER AND NEUROLOGICAL

Temperature of >38°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).



FEVER AND HAEMORRHAGIC

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



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.





Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2020 and 2021 vs Weekly Threshold; Jamaica







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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CLASS ONE NOTIFIABLE EVENTS

- CLASS O	CLASS ONE NOTIFIABLE EVENTS				Comments
			Confirmed YTD^{α}		AFP Field Guides
	CLASS 1 EV	VENTS	CURRENT YEAR 2021	PREVIOUS YEAR 2020	from WHO indicate that for an effective
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		Οβ	43	detection rates for AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually.
	Cholera		0	0	
	Dengue Hemorrhagic Fever ^{γ}		See Dengue page below	See Dengue page below	
	Hansen's Disease (Leprosy)		0	0	
	Hepatitis B		0	0	Pertussis-like syndrome and Tetanus are clinically confirmed classifications. γ Pengue Hemorrhagic Fever data include Dengue related deaths;
	Hepatitis C		0	0	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		0	0	
	Meningitis (Clinically confirmed)		0	1	
EXOTIC/ UNUSUAL	Plague		0	0	
H IGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0	 ^δ Figures include all deaths associated with pregnancy reported for the period. ^ε CHIKV IgM positive cases ^θ Zika PCR positive cases
	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	$^{\beta}$ Updates made to prior weeks in 2020.
		Rubella	0	0	
	Maternal Deaths ^{δ}		7	15	^α Figures are cumulative totals for all epidemiological weeks year to date.
	Ophthalmia Neonatorum		0	38	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		0	14	-
	Yellow Fever		0	0	
	Chikungunya ^ɛ		0	0	
	Zika Virus ^θ		0	0	NA- Not Available
5 NOTIF All clin sites	ICATIONS-	INVESTIGATION REPORTS- Detailed up for all Class One E	Follow vents	SPITAL TVE VEILLANCE-	SENTINEL REPORT- 78 sites. Automatic reporting

30 sites. Actively pursued

ISSN 0799-3927

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 18

May 02, 2021 – May 08, 2021 Epidemiological Week 18



i NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



Dengue Bulletin

May 02, 2020 – May 08, 2021 Epidemiological Week 18

Epidemiological Week 18







Suspected Dengue Cases for 2020 and 2021 versus Monthly Mean, Alert, and Epidemic Thresholds (2007-2020)



Cases

cases

- *Figure as at May 06, 2021
- **Only PCR positive dengue cases** 0 are reported as confirmed.
- IgM positive cases are classified • as presumed dengue.





7 NOTIFICATIONS-All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



RESEARCH PAPER

ABSTRACT

Complementary and Alternative Therapies used by Patients with Hypertension and Type 2 Diabetes Mellitus in Western Jamaica

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Objective: This study examined prevalence and predictors of complementary and alternative medicine (CAM) use among clinic patients with Hypertension (HTN) and/or Type 2 Diabetes Mellitus (DM) in western Jamaica.

Methods: An investigator-administered questionnaire was used to collect data on sociodemographic factors, CAM use, and knowledge and perceptions of CAM.

Results: Of the 345 participants, 311 had HTN, 130 had Type 2 DM, and 96 had both; 79% of those with HTN and 65% with Type 2 DM reported current use of CAM. Multivariable logistic regression revealed that participants with HTN or Type 2 DM who reported none/poor knowledge of CAM were 67% less likely to use CAM compared to those who reported average/good/excellent CAM knowledge (HTN - AOR=0.33, 95% CI=0.13-0.87; Type 2 DM -AOR= 0.06, 95% CI=0.01-0.37). Patients with HTN who believed that CAM is a natural method for treating HTN were 3.9 times more likely to use CAM (AOR = 3.9, 95% CI=1.26-12.00) and patients with Type 2 DM who believed that it is acceptable to use both prescription medication and CAM simultaneously were 7.19 times more likely to use CAM (CI=1.34-38.52).

Conclusions: A high proportion of patients in western Jamaica use CAM for treating HTN and Type 2 DM and most do not discuss CAM use with healthcare providers. Several factors were found to be significantly associated with CAM use among the patients. These results can be used in designing patient and educational interventions to ensure proper use, and mitigation of harmful effects, of CAM.



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NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

