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

Oral health

WHAT PROBLEMS COULD POOR DENTAL HEALTH CAUSE?

Key facts

- Oral diseases are the most common noncommunicable diseases (NCDs) and affect people throughout their lifetime, causing pain, discomfort, disfigurement and even death.
- The Global Burden of Disease Study 2016 estimated that oral diseases affected half of the world's population (3.58 billion people) with dental caries (tooth decay) in permanent teeth being the most prevalent condition assessed.
- Severe periodontal (gum) disease, which may result in tooth loss, was estimated to be the 11th most prevalent disease globally.
- Severe tooth loss and edentulism (no natural tooth) was one of the leading ten causes of Years Lived with Disability (YLD) in some high-income countries
- In some Asian-Pacific countries, the incidence of oral cancer (cancer of the lip and oral cavity) is within the top 3 of all cancers.
- Dental treatment is costly, averaging 5% of total health expenditure and 20% of out-of-pocket health expenditure in most high-income countries.
- The oral health care demands are beyond the capacities of the health care systems in most low-and middle-income countries (LMICs).
- Oral health inequalities exist among and between different population groups around the world and through the entire life course. Social determinants have a strong impact on oral health.
- Behavioural risk factors for oral diseases are shared with other major NCDs, such as an unhealthy diet high in free sugars, tobacco use and harmful use of alcohol.
- Poor oral hygiene and inadequate exposure to fluoride have negative effects on oral health.

DENTAL CARE

Oral diseases and conditions

Seven oral diseases and conditions account for most of the oral disease burden. They include dental caries (tooth decay), periodontal (gum) diseases, oral cancers, oral manifestations of HIV, oro-dental trauma, cleft lip and palate, and noma. Almost all diseases and conditions are either largely preventable or can be treated in their early stages.

The Global Burden of Disease Study 2016 estimated that oral diseases affected at least 3.58 billion people worldwide, with caries of the permanent teeth being the most prevalent of all conditions assessed.2 Globally, it is estimated that 2.4 billion people suffer from caries of permanent teeth and 486 million children suffer from caries of primary teeth[2]

In most LMICs, with increasing urbanization and changes in living conditions, the prevalence of oral diseases continues to increase notably due to inadequate exposure to fluoride and poor access to primary oral health care services. Heavy marketing of sugars, tobacco and alcohol leads to growing consumption of unhealthy products.

For more information on oral health please visit: https://www.who.int/news-room/fact-sheets/detail/oral-health
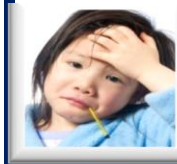
EPI WEEK 7

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 - 4 to 7 of 2020

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

Timeliness of Weekly Sentinel Surveillance Parish Reports for Epidemiological Weeks 04 of 2020 to 07 of 2020
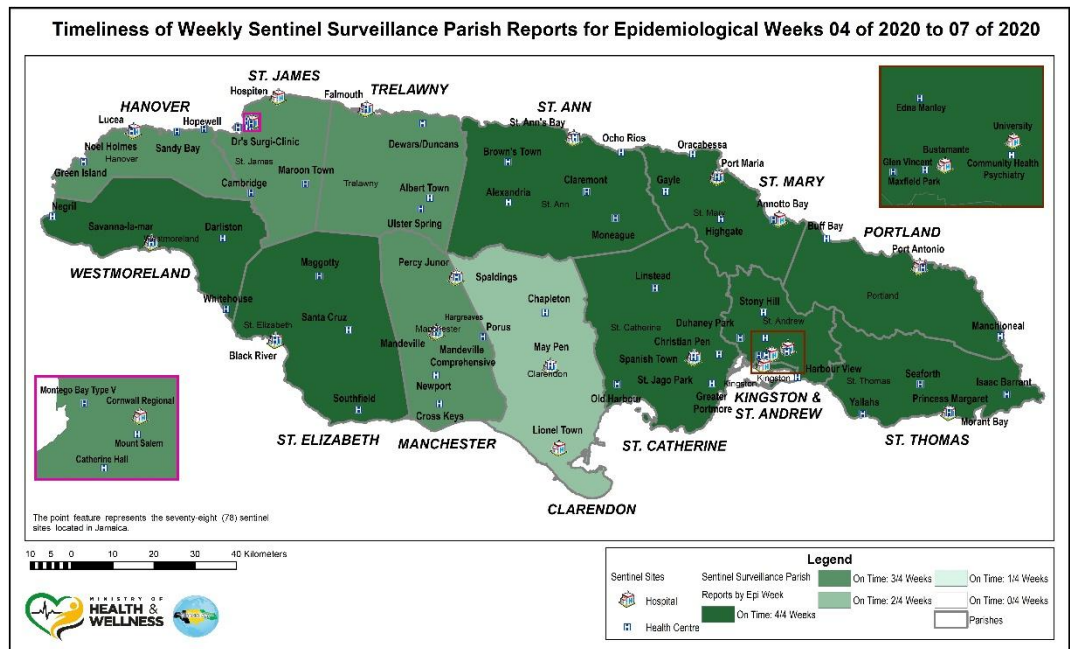
REPORTS FOR SYNDROMIC SURVEILLANCE

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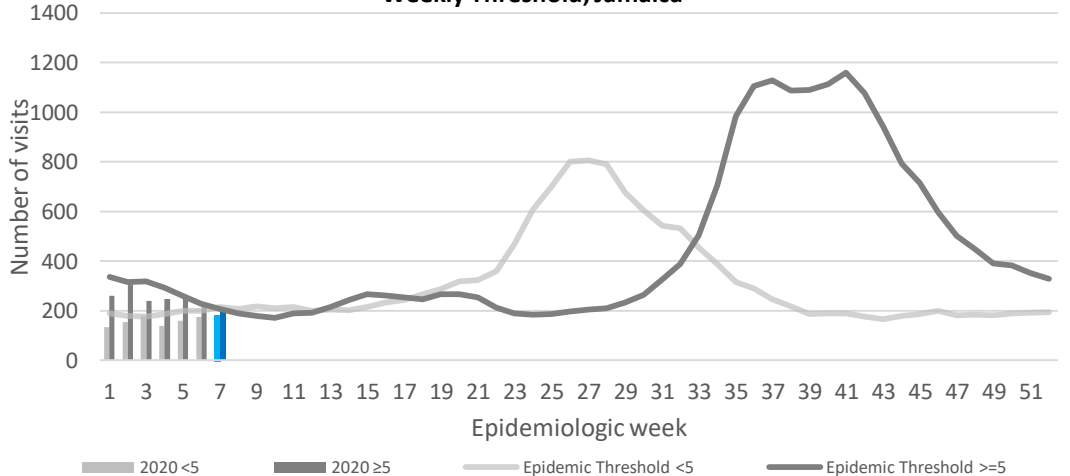
Temperature of >38^0C /100.4^0F (or recent history of fever) with or without an obvious diagnosis or focus of infection.

KEY
VARIATIONS OF BLUE SHOW CURRENT WEEK

Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages 2020 vs Weekly Threshold; Jamaica

2   NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

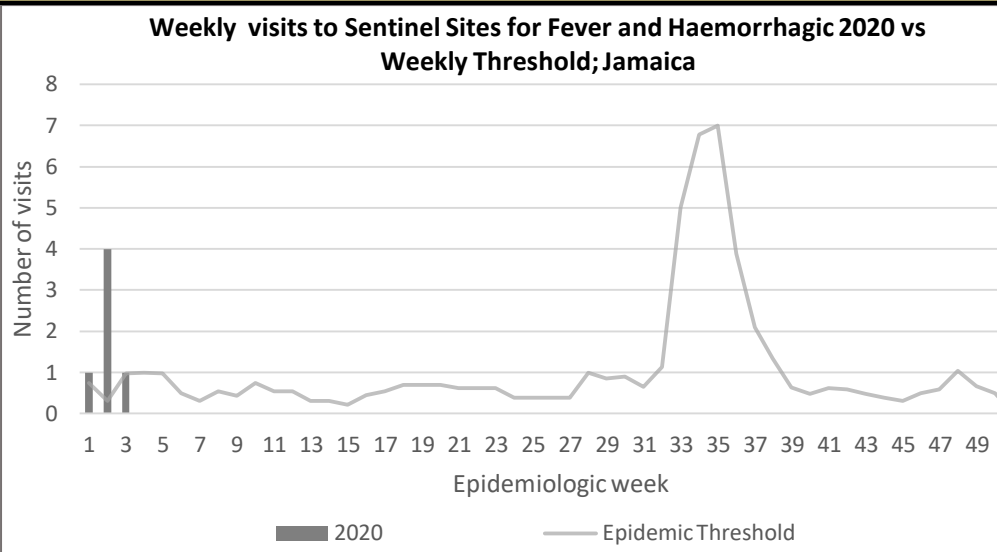SENTINEL REPORT- 78 sites. Automatic reporting

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).

Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2020 vs. Weekly Threshold: Jamaica
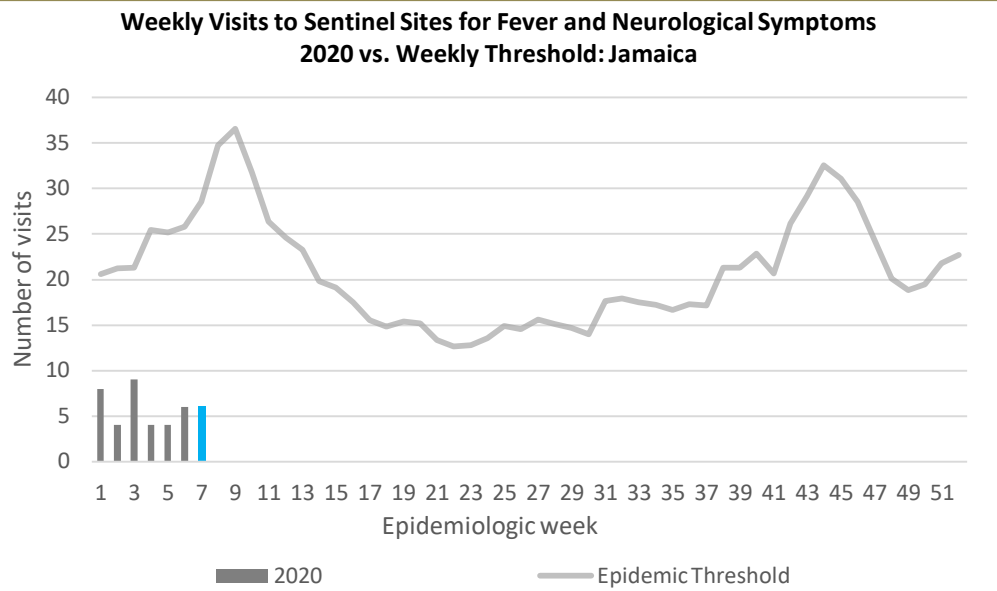
FEVER AND HAEMORRHAGIC

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.

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

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.

Weekly visits to Sentinel Sites for Fever and Jaundice 2020 vs Weekly Threshold: Jamaica
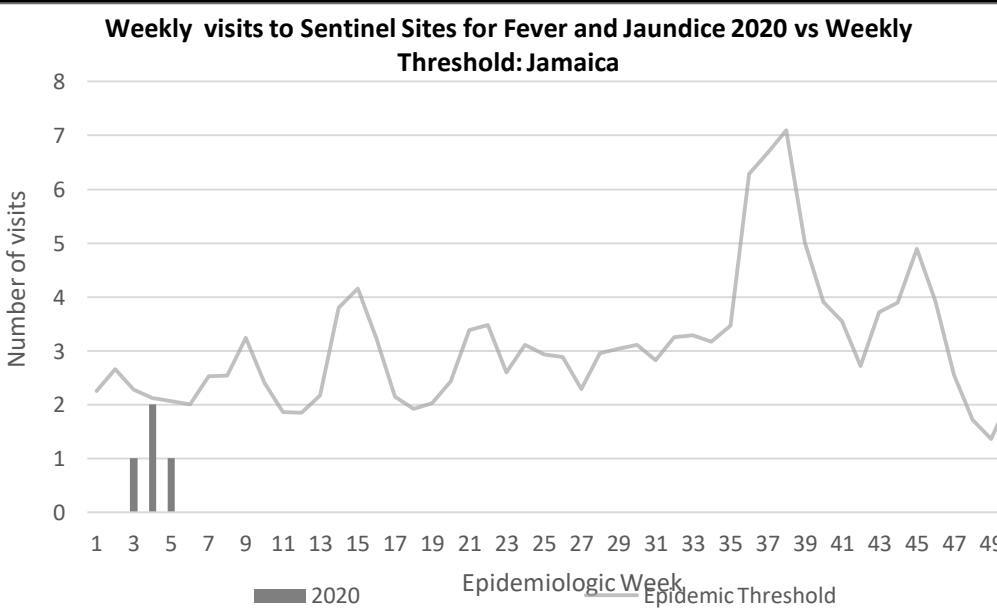
3 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

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

KEY
VARIATIONS Of BLUE SHOW CURRENT WEEK

Weekly visits to Sentinel Sites for Accidents by Age Group 2020 vs Weekly Threshold; Jamaica

Legend: ≥5 Cases 2020 · <5 Cases 2020 · Epidemic Threshold<5 · Epidemic Threshold≥5

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

Weekly visits to Sentinel Sites for Violence by Age Group 2020 vs Weekly Threshold; Jamaica

Legend: ≥5 y.o · <5 y.o · <5 Epidemic Threshold · ≥5 Epidemic Threshold

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

Weekly visits to Sentinel Sites for Gastroenteritis All ages 2020 vs Weekly Threshold; Jamaica

Legend: 2020 <5 · 2020 ≥5 · Epidemic Threshold <5 · Epidemic Threshold >5

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4 **NOTIFICATIONS-** All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

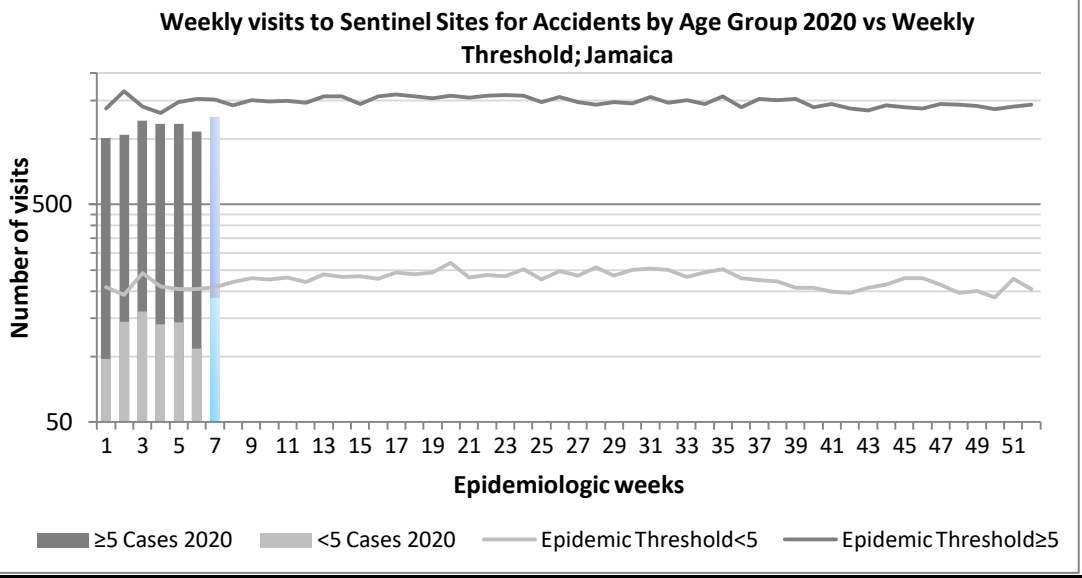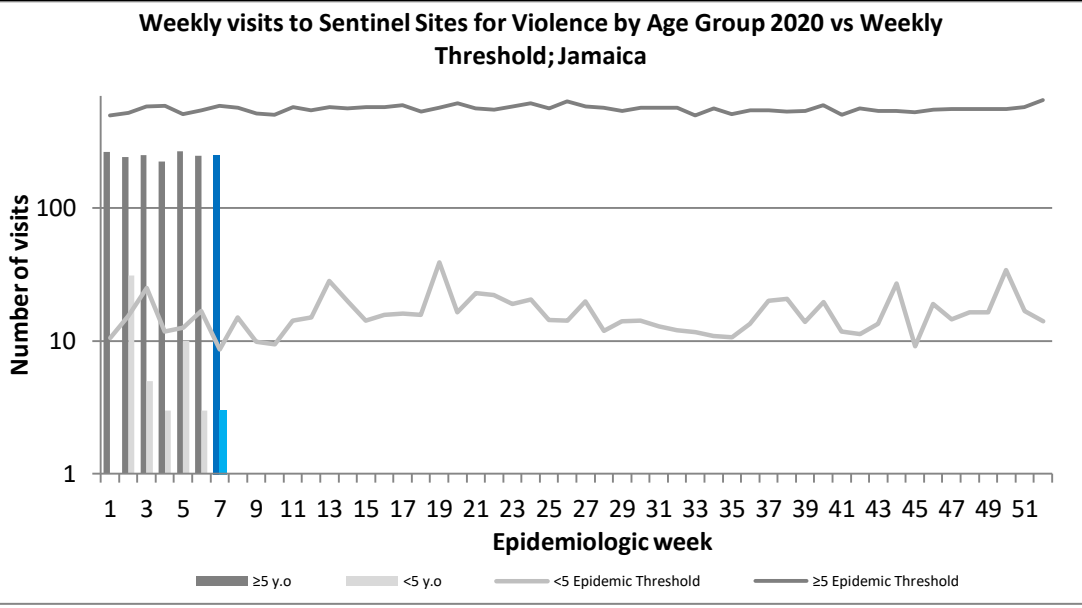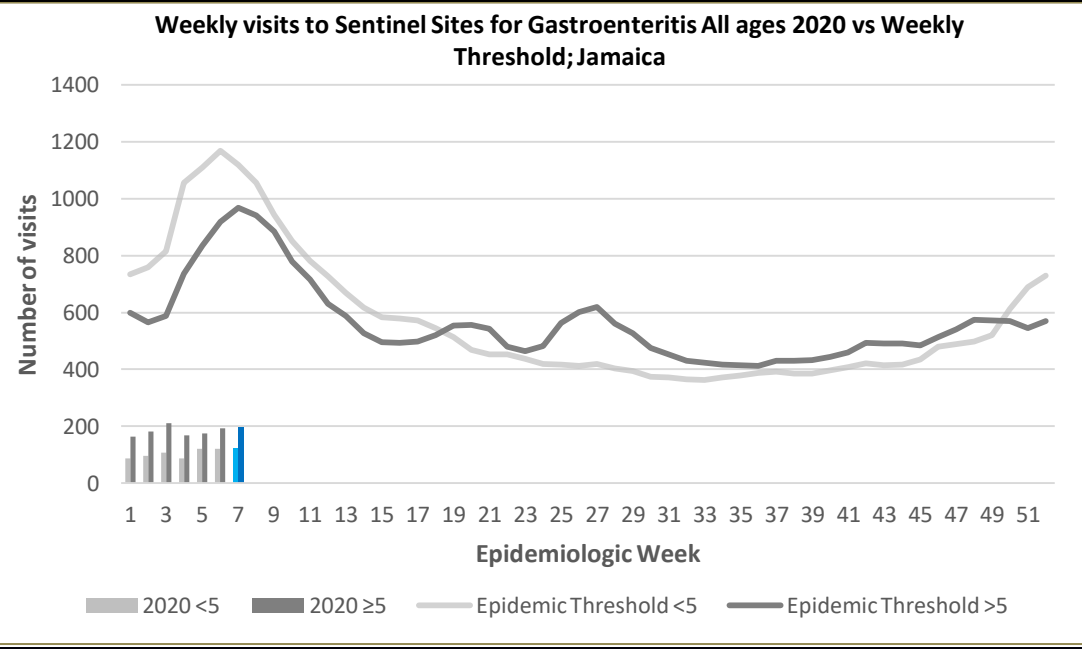**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued

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CLASS ONE NOTIFIABLE EVENTS   Comments

	CLASS 1 EVENTS	Confirmed YTD	
		CURRENT YEAR 2020	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)	1	1
EXOTIC/ UNUSUAL	Plague	0	0
HIGH 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
	Fever and Rash — Rubella	0	0
	Maternal Deaths**	3	8
	Ophthalmia Neonatorum	10	35
	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

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.

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Pertussis-like syndrome and Tetanus are clinically confirmed classifications.

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* 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

5 NOTIFICATIONS- All clinical sites

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NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 07

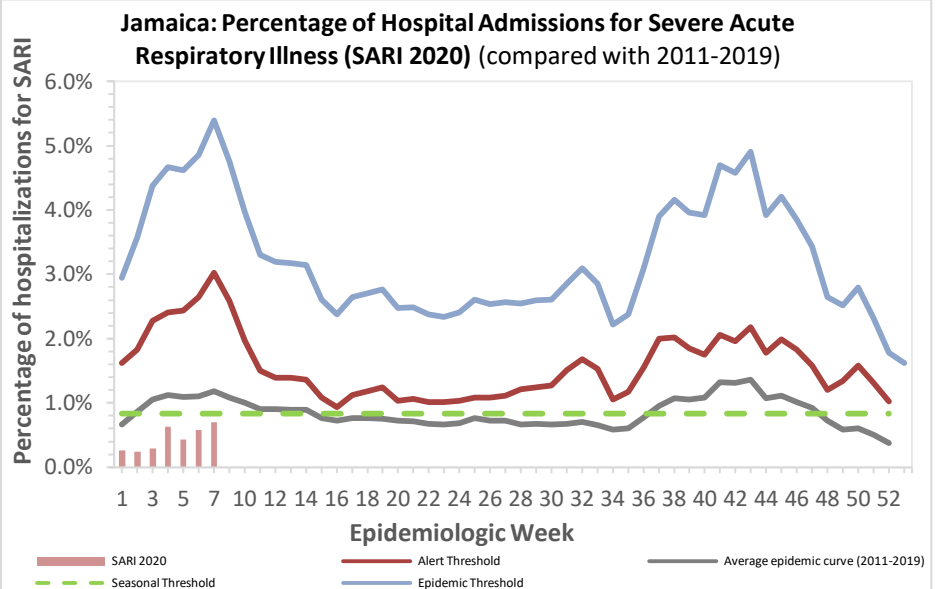February 9, 2020– February 15, 2020   Epidemiological Week 07

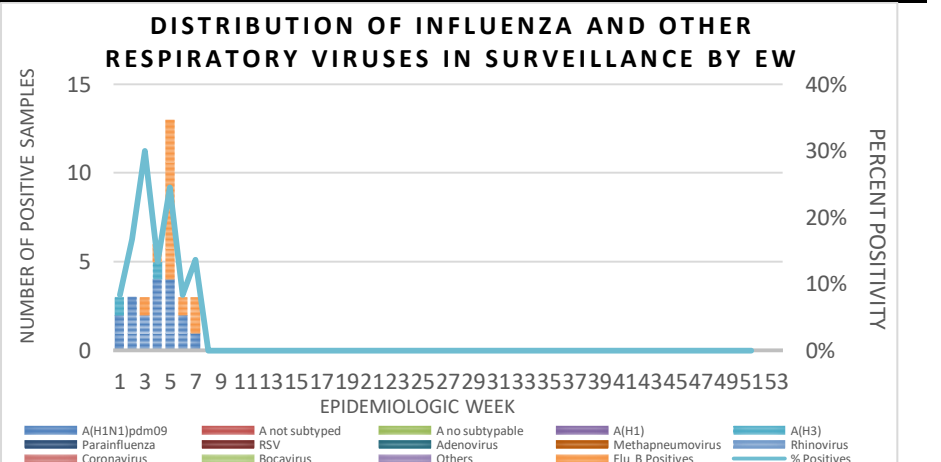|	EW 07	YTD
SARI cases	12	53
Total Influenza positive Samples	3	34
Influenza A	1	20
H3N2	0	2
H1N1pdm09	1	18
Not subtyped	0	0
Influenza B	2	14
Parainfluenza	0	0
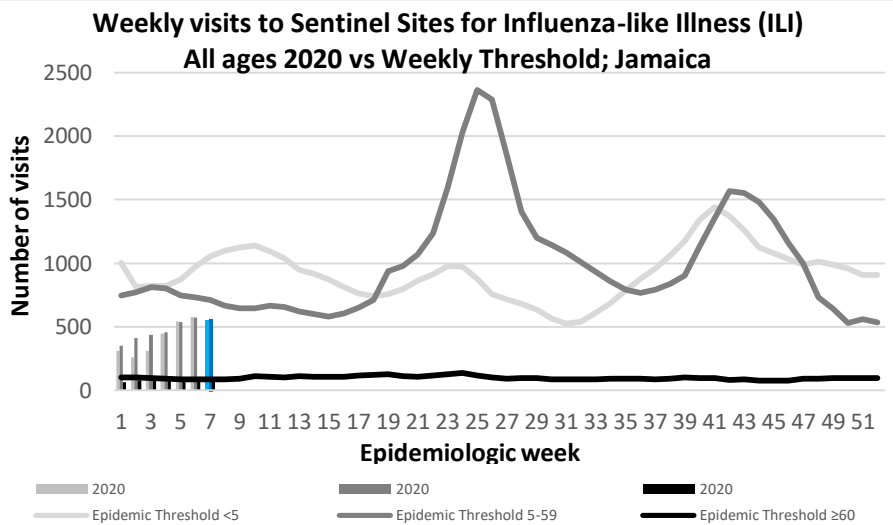
Epi Week Summary

During EW 07, 12 (twelve) SARI admissions were reported.

13.6% positivity for EW 07

Caribbean Update EW 07

Overall, influenza activity is moderate in the sub-region. Influenza activity slightly increased in Belize with influenza A(H1N1)pdm09 and influenza B viruses co-circulating. In the French Territories influenza-like illness is above the epidemic threshold with influenza A(H1N1)pdm09, and B/Victoria viruses co-circulating. In Jamaica, influenza activity continued increased with influenza B/Victoria predominance and influenza A(H1N1)pdm09 co-circulating.

Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2020 vs Weekly Threshold; Jamaica

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2020) (compared with 2011-2019)

DISTRIBUTION OF INFLUENZA AND OTHER RESPIRATORY VIRUSES IN SURVEILLANCE BY EW

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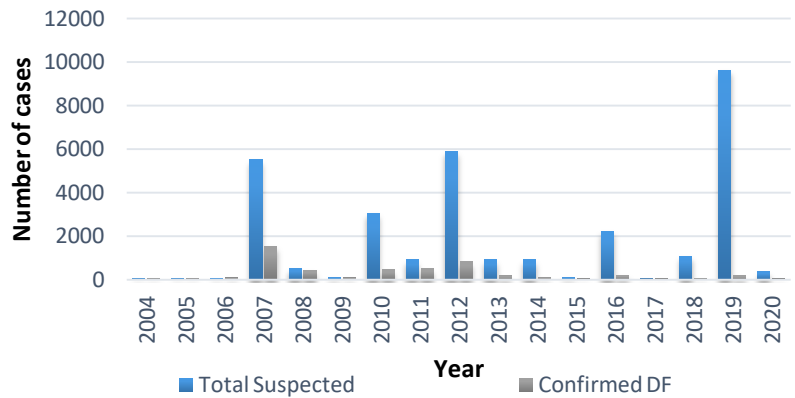
SENTINEL REPORT- 78 sites. Automatic reporting

Dengue Bulletin

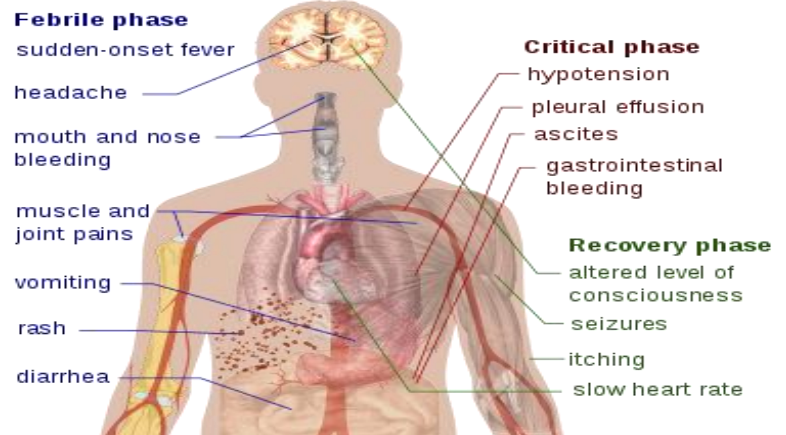February 9– February 15, 2020 Epidemiological Week 07 | Epidemiological Week 07

Dengue Cases by Year: 2004-2020, Jamaica

Reported suspected and confirmed dengue with symptom onset in week 7 of 2020

	2020	
	EW 7	**YTD**
Total Suspected Dengue Cases	0**	357**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**

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
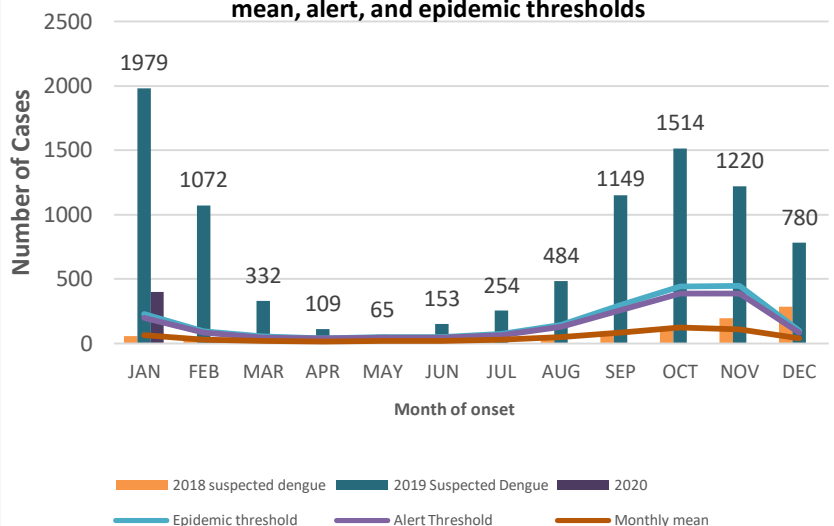
Points to note:

- **** figure as at February 20, 2020**

- **Only PCR positive dengue cases are reported as confirmed.**

- **IgM positive cases are classified as presumed dengue.**

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

RESEARCH PAPER

ABSTRACT

Validating Tobacco and Marijuana Smoking in Jamaican Adults with Sickle Cell Disease Using Biochemical Tests

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2. The Caribbean Institute for Health Research (CAIHR). Sickle Cell Unit. The University of the West Indies. Mona Campus. Jamaica. WI.

3. School of Nursing. Duke University. Durham. North Carolina. USA.

Aim: Assess smoking prevalence and validate self-reported tobacco and marijuana smoking using biochemical measurements in adults with sickle cell disease.

Methods: A cross-sectional study was conducted at the sickle cell clinics during May-July 2019. Data collection tools included: socio-demographic instrument and a modified WHO Stepwise Approach to chronic disease risk factor surveillance (STEPS). Self-reported smoking and exposure were validated by carbon monoxide (CO) Breathalyzer (cutoff 6ppm), urine cotinine measures (cutoff 200ng/ml) and Tetrahydrocannobinoid (THC) tests (cutoff 50ng/ml). Data were analyzed using SPSS version 20.

Results: The sample of 220 adults consisted of 129 (58.6%) females. The majority had urban residence (51.4%); were employed (66.4%) and the mean age (34 ±11.76). Smoking prevalence was 15%. Self-reported tobacco 'vs' marijuana smoking was (10.9% 'vs' 10.5%) and concomitant tobacco and marijuana smoking (9.1%; $\chi^2$65.965 p<0.001). Men had higher smoking (72.7% 'vs' 27.3%, Fisher's Exact <0.001). There were higher occasional tobacco and occasional marijuana smoker (7.3% vs 6.8%) than daily smokers (3.6%). Only one smoker reportedly vaped tobacco. Regression analysis for current smoker revealed that only male gender was significant (OR 3.78, p=0.002). Comparison between self-reported smoking and urine tests revealed that the majority of tobacco smokers had positive cotinine results (88.9%; p<0.001); while (66.7%; p<0.001) of marijuana smokers had positive THC results. One positive THC tester disclosed using marijuana sublingual medication for pain. Mean carbon monoxide: Smokers 'vs' non-smokers were [13.63±7.88 'vs' 8.9±3.45; p=0.002].

Conclusion: Males with SCD had high smoking prevalence. Cotinine and THC tests are reliable tests to assess smoking in SCD, but CO test is not.

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