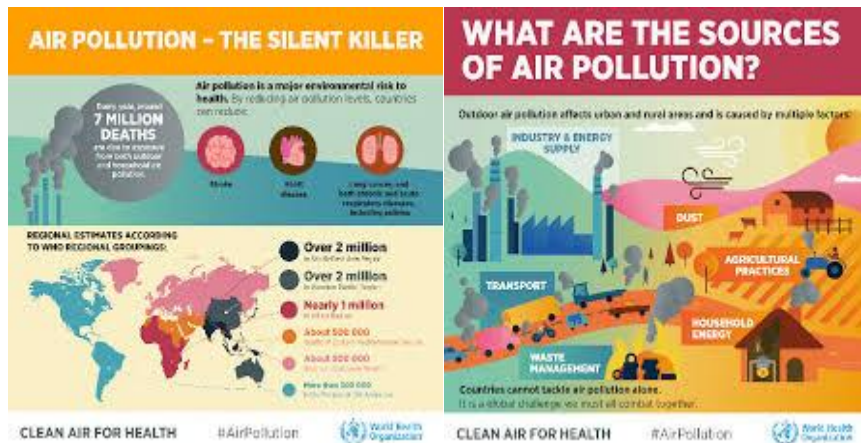


WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Air Quality

In 2016 alone, according to the World Health Organization (WHO), some 249 thousand premature deaths were attributable to outdoor air pollution and another 83 thousand premature deaths were attributable to the use of solid fuels for household energy (household air pollution) in the Americas. In addition, short-lived climate pollutants such as black carbon are powerful climate forcers with potential negative consequences on global warming and its associated health impact. Everyone can be exposed to air pollution. However, exposure may vary significantly among different population groups and geographic areas. People living near busy roads or industrial sites, for example, often are exposed to higher levels of outdoor air pollution than others, while those who live in households that rely on solid fuels for energy often bear the brunt of exposure to household air pollution. In some instances, exposure differences among population groups may be linked with inequities in the development, implementation, and enforcement of environmental laws, regulations, and policies.



Key facts

- Air pollution is the largest environmental risk for public health in the Americas.
- Worldwide near 7 million premature deaths are attributable to air pollution in 2016. About 88% of these deaths occurs in low and middle-income countries.
- + 150 million people in Latin America and the Caribbean live in cities with levels of air pollution exceeding WHO air quality guidelines.
- Exposure to high levels of air pollution can cause a variety of adverse health outcomes. It increases the risk of respiratory infections, heart disease, stroke and lung cancer. Such effects affects largely the most vulnerable population, children, the elderly and women.
- Household air pollution (HAP) is associated to the inefficient combustion of solid fuels and kerosene is the one of leading environmental risk factor for death and disability in the world.

<https://www.paho.org/en/topics/air-quality>

EPI WEEK 14

SYNDROMES



PAGE 2

CLASS 1 DISEASES



PAGE 4

INFLUENZA



PAGE 5

DENGUE FEVER



PAGE 6

GASTROENTERITIS



PAGE 7

RESEARCH PAPER



PAGE 8

SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica



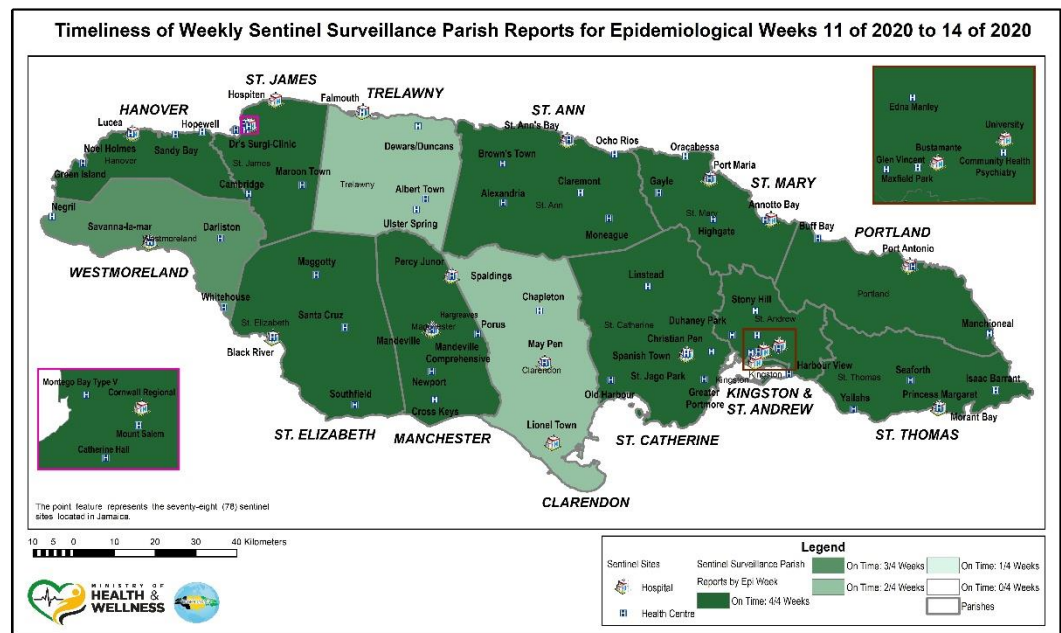
A syndromic surveillance system is good for early detection of and response to public health events.

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 - 11 to 14 of 2020

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



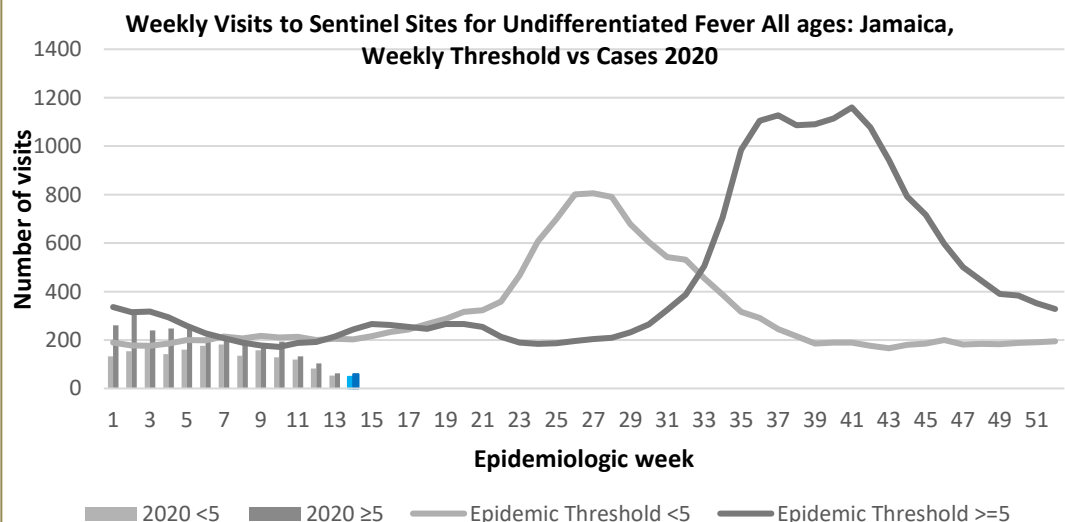
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

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

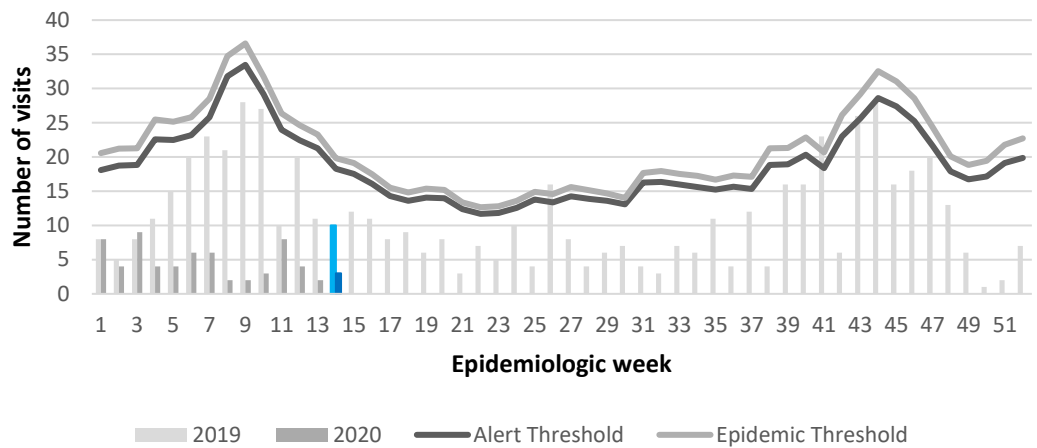
SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL

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



Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 and 2020 vs. Weekly Threshold: Jamaica

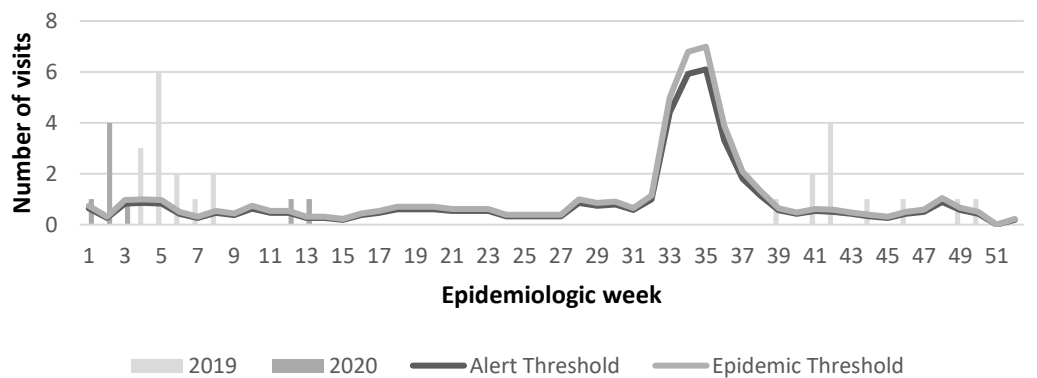


FEVER AND HAEMORRHAGIC

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



Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2019 and 2020 vs Weekly Threshold; Jamaica



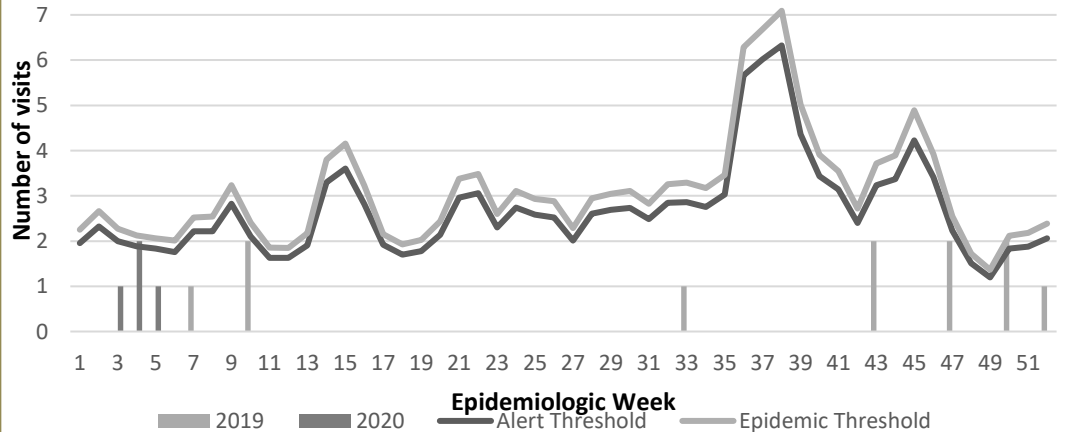
FEVER AND JAUNDICE

Temperature of $>38^{\circ}\text{C}$ / 100.4°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.



Fever and Jaundice cases: Jamaica, Weekly Threshold vs Cases 2019 and 2020



3 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



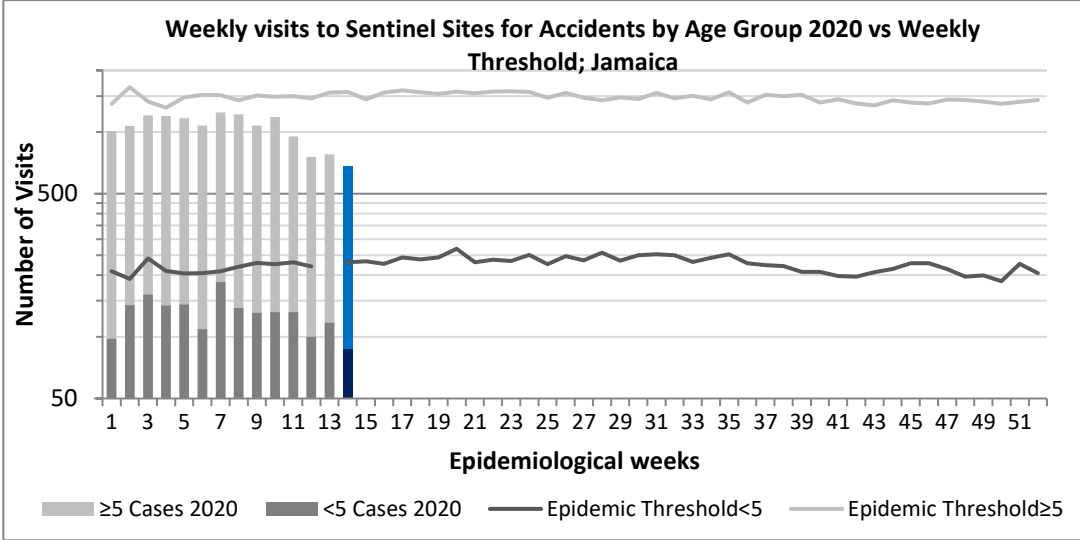
SENTINEL REPORT- 78 sites. Automatic reporting

ACCIDENTS

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

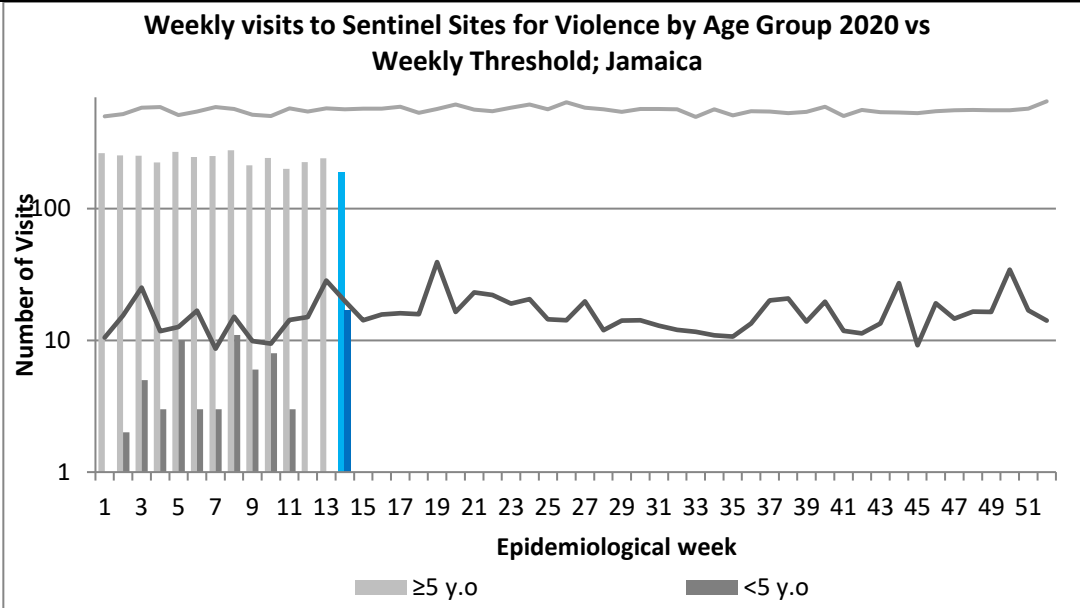
KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK



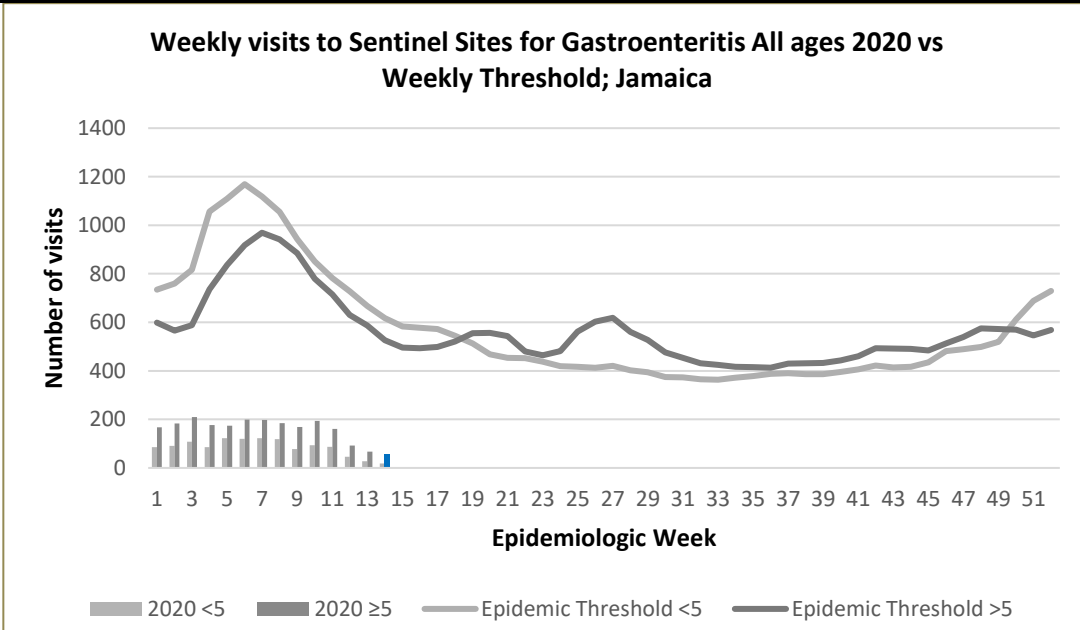
VIOLENCE

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.



4 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

CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD		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.	
		CURRENT YEAR 2020	PREVIOUS YEAR 2019		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	5	6	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.	
	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	* Dengue Hemorrhagic Fever data include Dengue related deaths;	
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis	0	0	** Figures include all deaths associated with pregnancy reported for the period. * 2019 YTD figure was updated.	
	Neonatal Tetanus	0	0		
	Typhoid Fever	0	0		
	Meningitis H/Flu	0	0		
SPECIAL PROGRAMMES	AFP/Polio	0	0	*** CHIKV IgM positive cases  **** Zika PCR positive cases	
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0		0
		Rubella	0		0
	Maternal Deaths**	13	15		
	Ophthalmia Neonatorum	23	53		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	0	11		
Yellow Fever	0	0			
	Chikungunya***	0	0		
	Zika Virus****	0	0	NA- Not Available	

 5 NOTIFICATIONS- All clinical sites

 INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

 HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

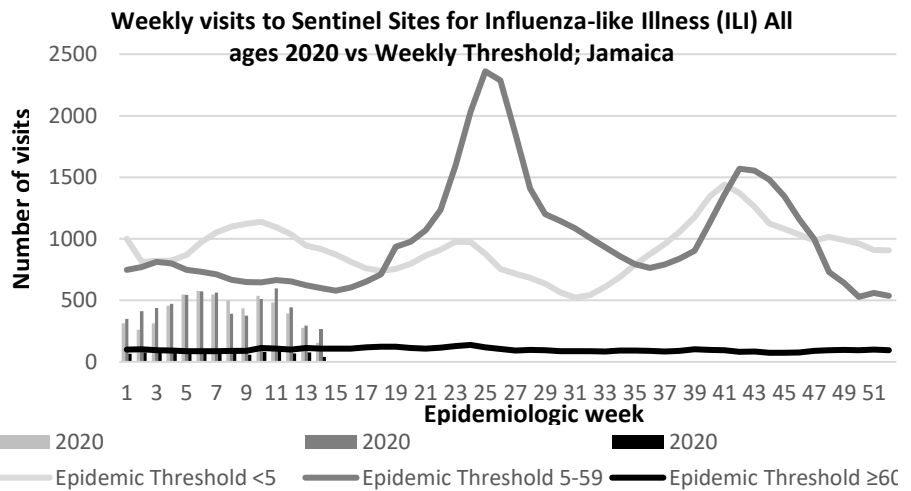
 SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 14

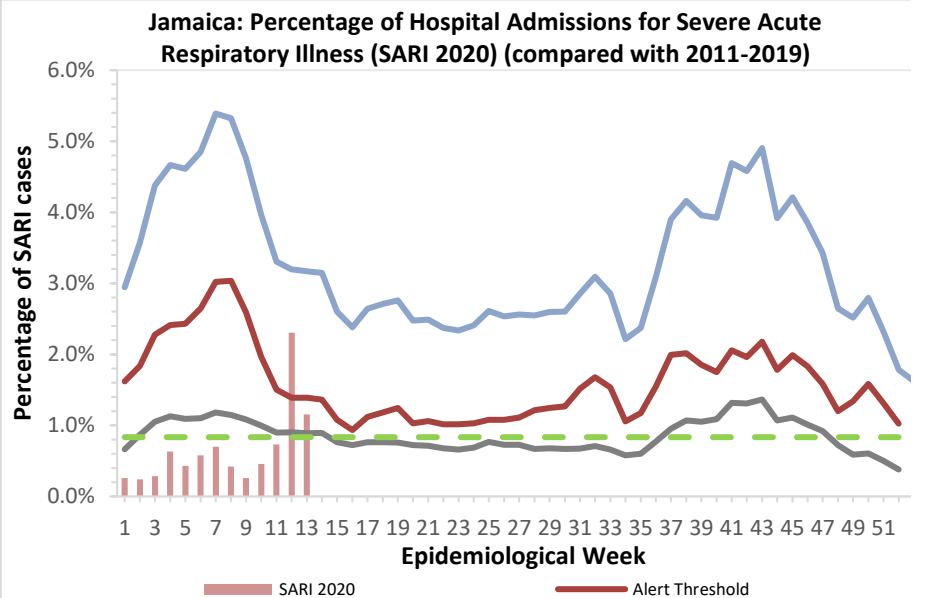
March 29, 2020-April 04, 2020 Epidemiological Week 14

	EW 14	YTD
SARI cases	31	146
Total Influenza positive Samples	0	68
Influenza A	0	44
H3N2	0	3
H1N1pdm09	0	38
Not subtyped	0	3
Influenza B	0	23
Parainfluenza	0	0



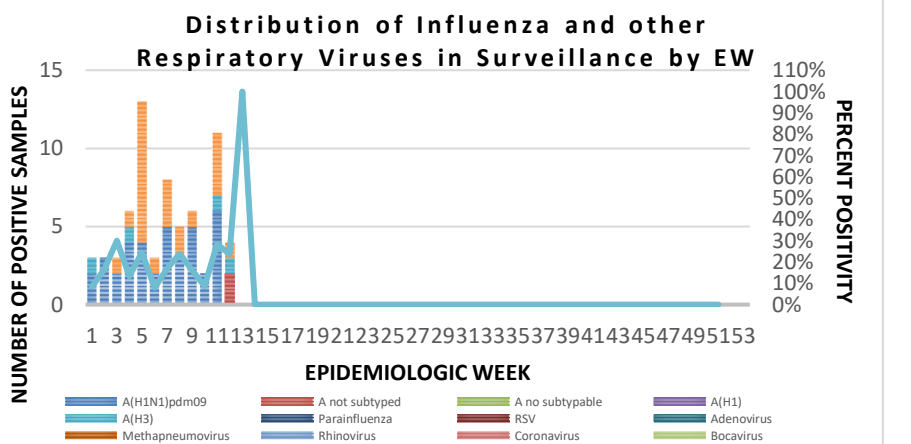
Epi Week Summary

During EW 14, 31 (thirty one) SARI admissions were reported.



Caribbean Update EW 14

Caribbean: Overall, influenza activity was elevated in the sub-region. In Cuba, influenza activity increased with influenza A and B viruses co-circulating. Influenza activity decreased in Belize with influenza A(H1N1)pdm09 and influenza B viruses co-circulating. All the French Territories are in the epidemic phase with a continued increase in influenza activity observed in Guadeloupe and Martinique. In Saint-Barthélemy influenza activity was stable. In the Dominican Republic, influenza activity slightly decreased with influenza A(H1N1)pdm09 predominance and influenza B/Yamagata co-circulating. In Saint Lucia, influenza-like illness was above the epidemic threshold with influenza A(H1N1)pdm09 virus circulating in recent weeks.



6 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

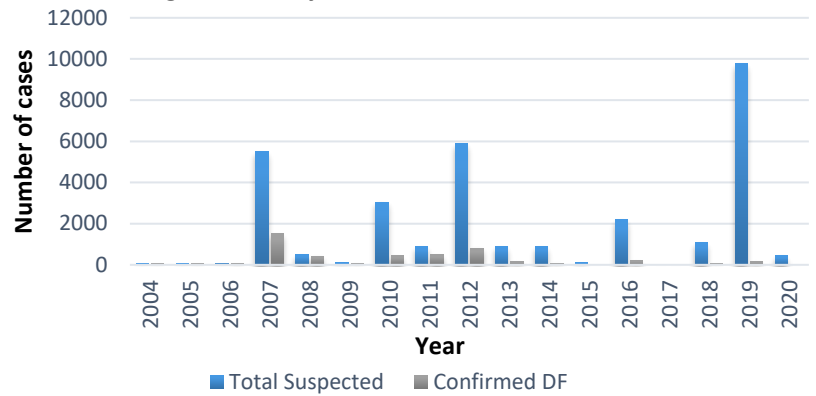
Dengue Bulletin

March 29, 2020-April 04, 2020 Epidemiological Week 14

Epidemiological Week 14

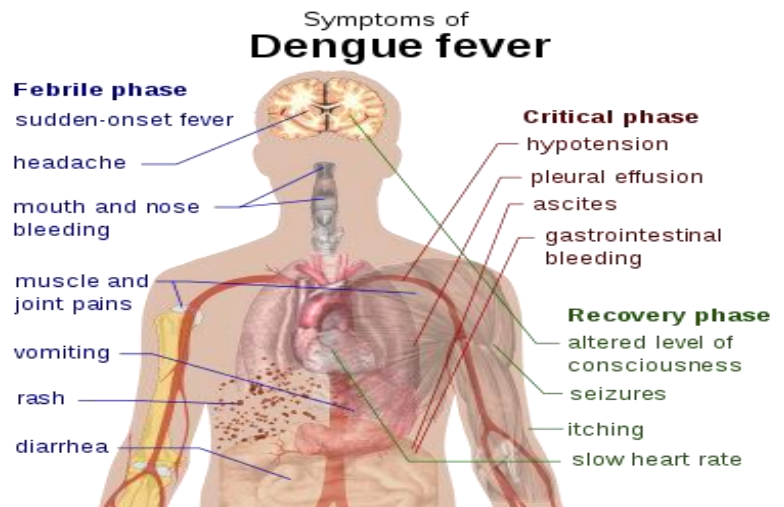


Dengue Cases by Year: 2004-2020, Jamaica



Reported suspected and confirmed dengue with symptom onset in week 14 of 2020

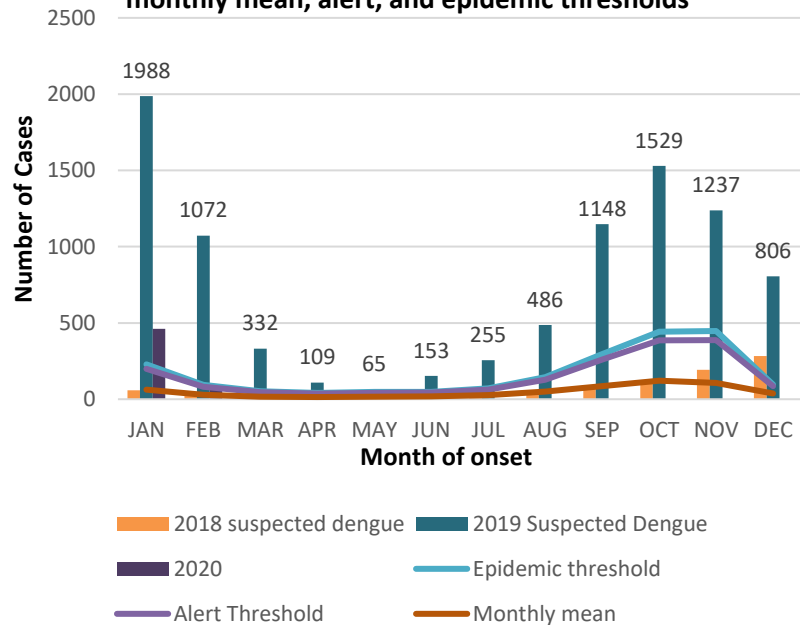
	2020	
	EW 14	YTD
Total Suspected Dengue Cases	0**	583**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**



Points to note:

- ** figure as at April 7, 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



7 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

RESEARCH PAPER

ABSTRACT

Using the Beck Depression Inventory to Identify Depressive Symptoms in Jamaican Youths

Ms. Denise Simpson – Citizen Security and Justice Programme, Ministry of National Security
(dendenson@gmail.com)

Mr. Kenneth Barnes - Citizen Security and Justice Programme, Ministry of National Security

Objectives:

This study examined the prevalence of depressive symptoms in youths and seeks to find the symptoms that tend to occur most frequently within this sample. The assessments were done at a treatment site within the Central Region of the Citizen, Security and Justice Program (CSJP) under the Ministry of National Security (MNS).

Methods:

Participants ages 18 to 30 years completed the Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996), over the period January 2017 to December 2018. Other measures of socio-demographic background were also collected. Data gathered from the 21 categories of the BDI-II instrument were then entered into SPSS for analysis.

Results:

A wide cross-section of at risk youths from four (4) parishes in rural Jamaica were sampled (n=154; 61% male, 39% females; mean age =22.7. An analysis of the data showed that approximately seven in every ten participant (71.4%) reported some symptoms of depression with 16.9% reporting mild symptoms; 22.7% reporting moderate symptoms and 31.8% reporting severe symptoms of depression. Symptoms that were most prevalent in this sample included sadness (73.9%); punishment feelings (70.7%); and guilty feelings (67.5%)

Results also show that there were significant differences in gender in their prevalence of depressive symptoms. Females were more likely to report depressive symptoms than males (p=.004). Additionally, the analysis revealed significant differences in educational levels for depressive symptoms. Participants who reported having primary/all age as the highest level of education were more likely to report depressive symptoms than those who reported having secondary/high school education (p=.024).

Conclusion:

The use of the Beck Depression Inventory II (BDI-II) to assess depressive symptoms in youths in Jamaica is an effective way to identify prevalent symptoms that impact mental health for that population. Gender differences in depression scores are consistent with studies in other countries (Lowe, 2005). In comparison to previous studies (Beck 1967) this sample had a higher percentage of youths scoring in the “none to minimal” depressive and severely depressed ranges.

These findings warrant closer examination of the contributing factors of depression among Jamaican youths. This information should be useful for practitioners working with similar populations.



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8 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



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