

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 - 16 to 19 of 2020

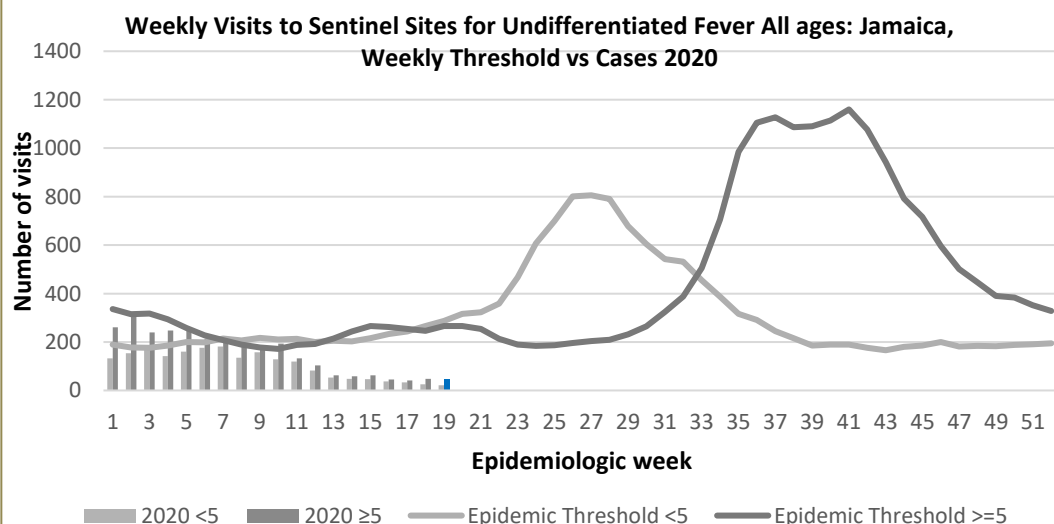
Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

**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



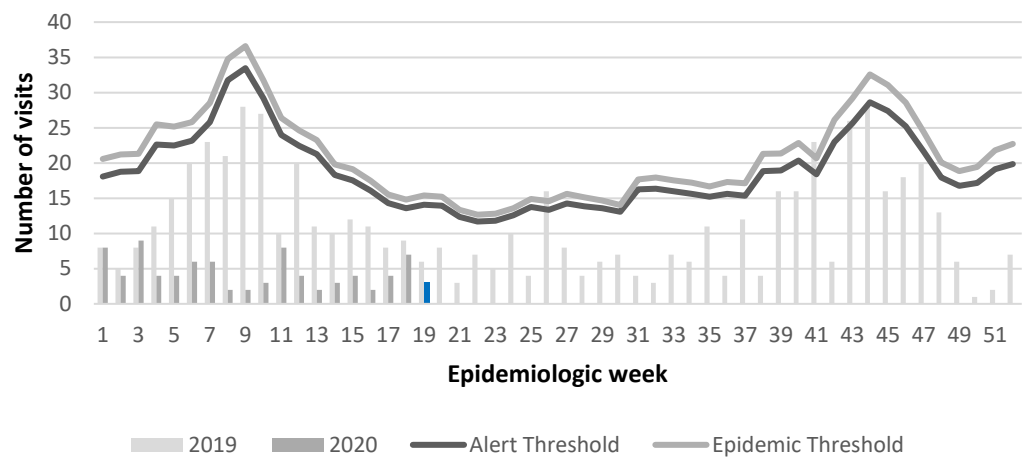
SENTINEL REPORT- 78 sites. Automatic reporting

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).



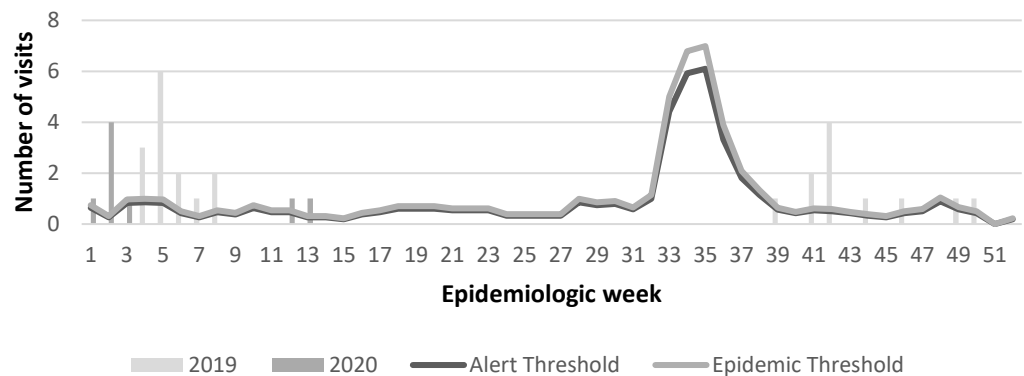
**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms
2019 and 2020 vs. Weekly Threshold: Jamaica**

**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

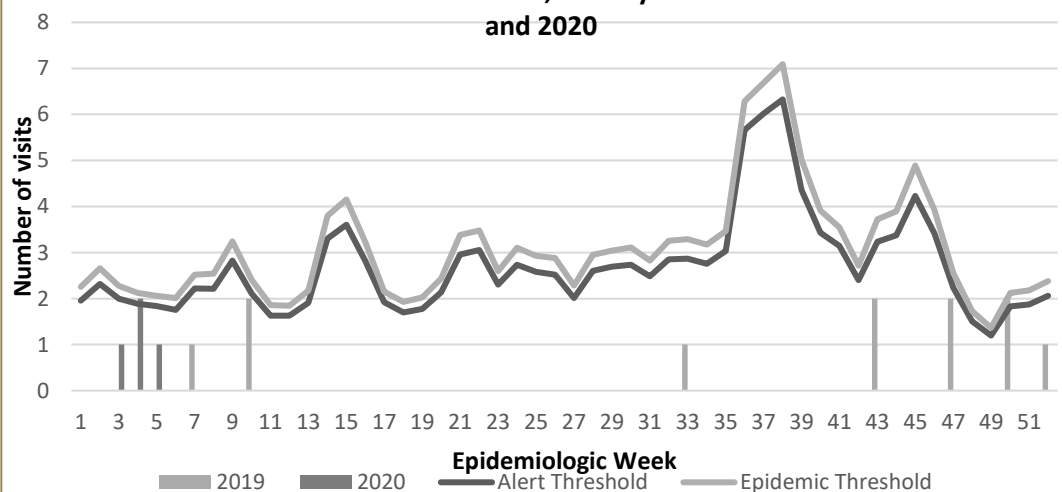
**FEVER AND JAUNDICE**

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-
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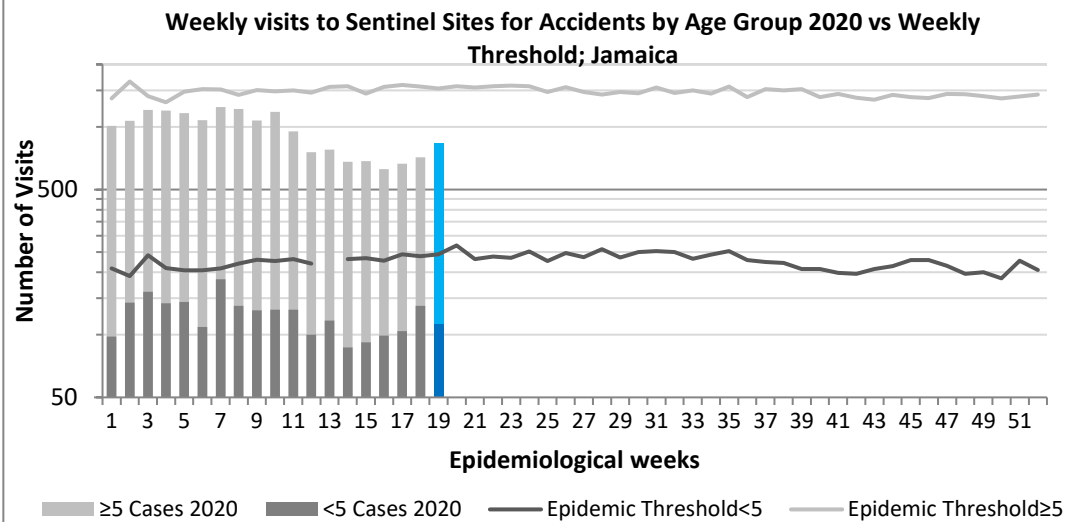
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ACCIDENTS

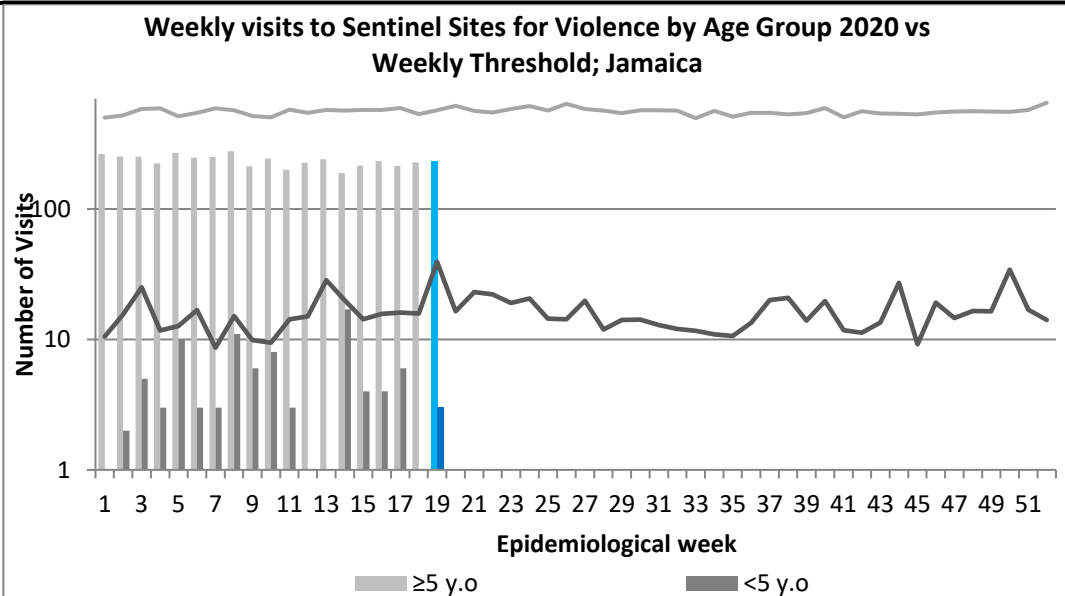
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

KEY

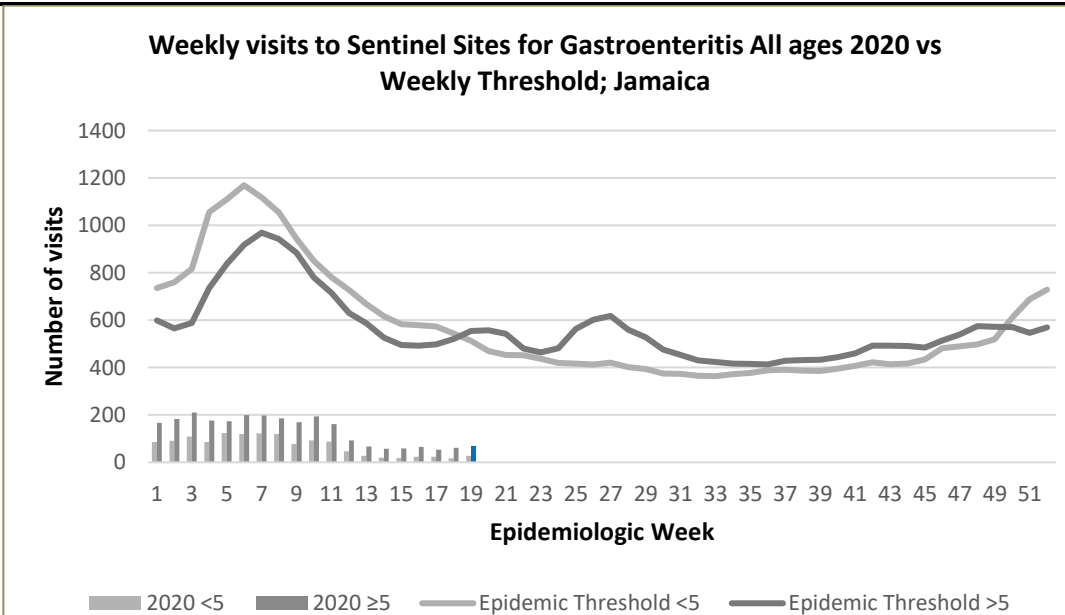
VARIATIONS OF BLUE SHOW CURRENT WEEK

**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-
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- CLASS ONE NOTIFIABLE EVENTS					Comments
		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. Pertussis-like syndrome and Tetanus are clinically confirmed classifications.	
	CLASS 1 EVENTS	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	8		
	Hepatitis C	0	2		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	1	5		
EXOTIC/ UNUSUAL	Plague	0	0	* 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	
HIGH MORBIDITY/ 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
		Rubella	0		0
	Maternal Deaths **		13		23
	Ophthalmia Neonatorum		23		74
	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-
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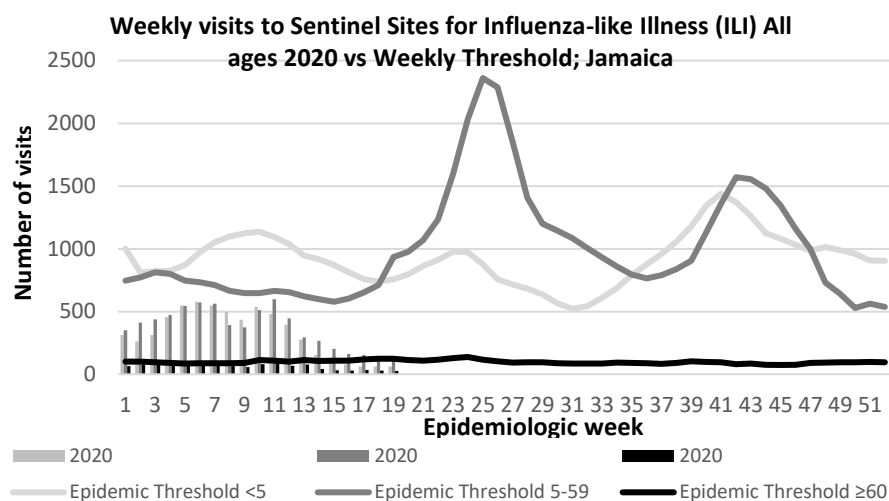
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NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 19

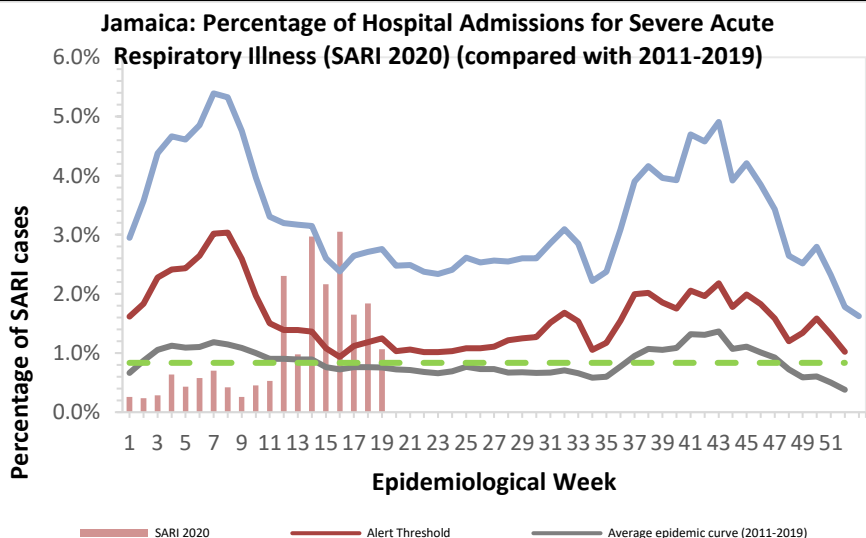
May 03, 2020-May 09, 2020 Epidemiological Week 19

	EW 19	YTD
SARI cases	12	250
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



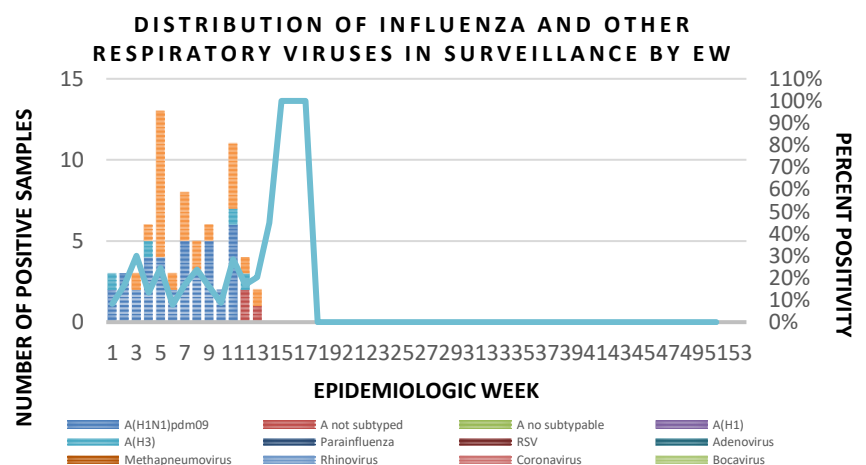
Epi Week Summary

During EW 19, 12 (twelve) SARI admissions were reported.



Caribbean Update EW 19

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



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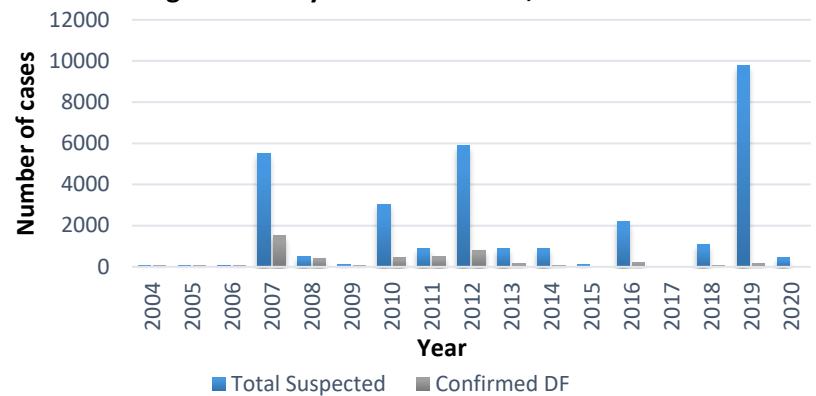
Dengue Bulletin

May 03, 2020-May 09, 2020 Epidemiological Week 19

Epidemiological Week 19

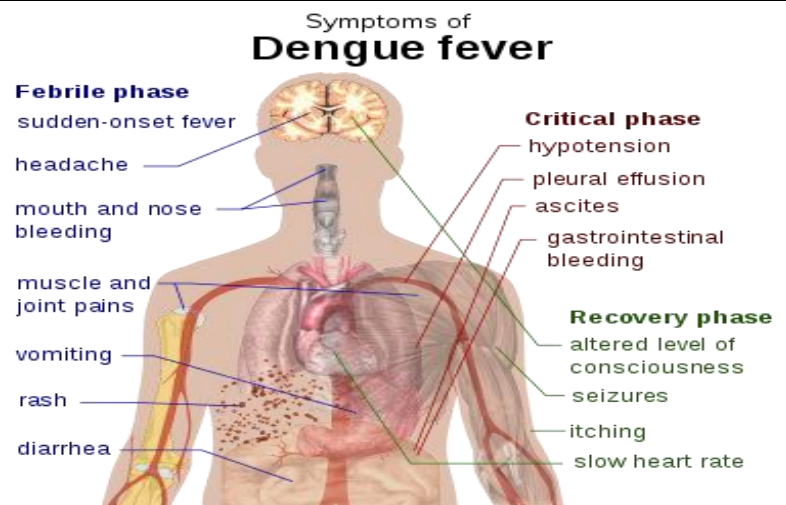


Dengue Cases by Year: 2004-2020, Jamaica



Reported suspected and confirmed dengue with symptom onset in week 19 of 2020

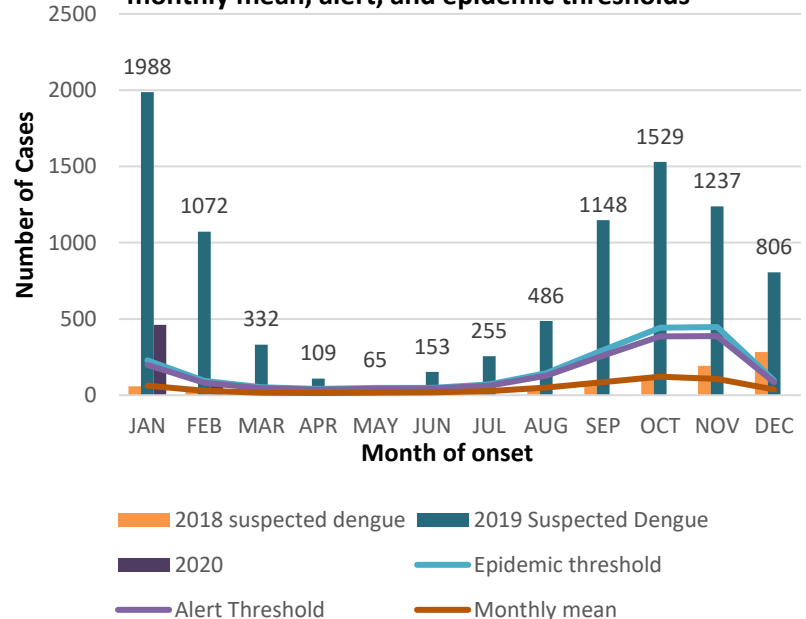
	2020	
	EW 19	YTD
Total Suspected Dengue Cases	0**	588**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**



Points to note:

- ** figure as at May 16 , 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-
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COVID-19 Epidemiological Report

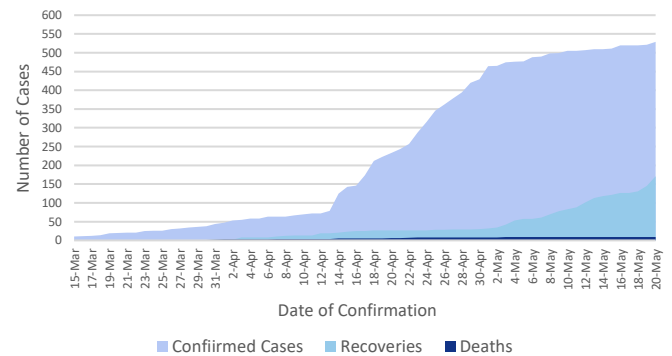
Data as at May 20, 2020



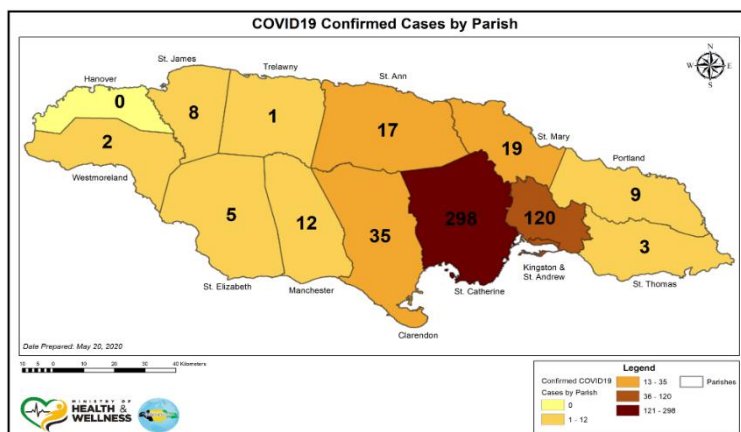
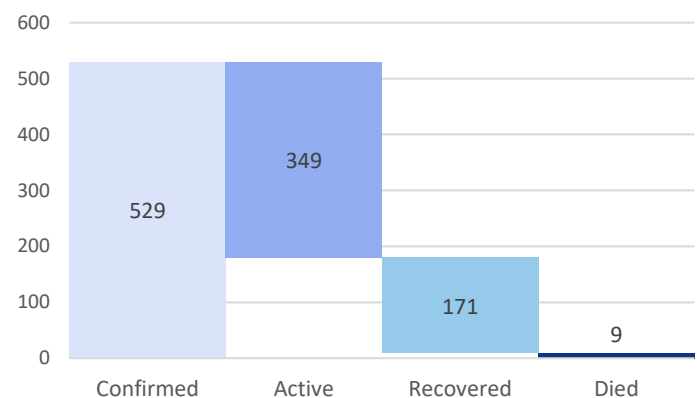
Key Points

- Jamaica has reported **529 confirmed cases** of COVID-19
 - 50 imported
 - 26 local transmissions (not epidemiologically linked)
 - 206 contacts of a confirmed case
 - 234 related to a work place cluster
 - 13 under investigation
- 19.3 per 100,000 cumulative incidence
- 13/14 parishes have reported cases
- 56% of cases were reported from St. Catherine
- 317 (60%) cases were female and 212 (40%) were male
- 9 (1.7%) confirmed cases have died
- 56% of all deaths were in person 60 years and older and 67% of deaths were male
- 171 (32%) cases have Recovered
- 11 (2.1%) cases have been Critically Ill
- 10 (1.9%) cases have been Moderately Ill
- 46 (8.7%) cases had at least one underlying illness while 100% of deaths had at least one underlying illness

Number of Confirmed COVID-19 Cases, Recoveries and Deaths, Jamaica from March 15, 2020 to May 20, 2020



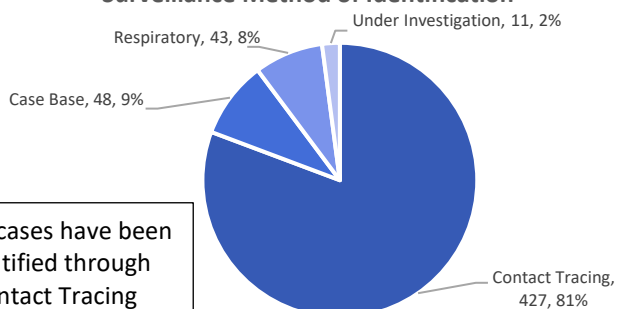
Clinical Status of Confirmed Cases (n=529)



Distribution by Community with Confirmed Cases ≥ 10

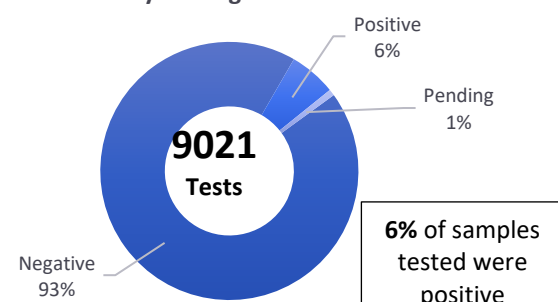
Case Count	Community	Parish
35	Linstead	St. Catherine
34	Old Harbour	St. Catherine
22	Greater Portmore	St. Catherine
19	Waterford	St. Catherine
17	Ensom	St. Catherine
16	Ewarton	St. Catherine
11	Constant Spring	St. Andrew
11	Bog Walk	St. Catherine
10	Greendale	St. Catherine
10	Gregory Park	St. Catherine

Surveillance Method of Identification



Most cases have been identified through Contact Tracing

Laboratory Testing for COVID-19



6% of samples tested were positive



8 NOTIFICATIONS-
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INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

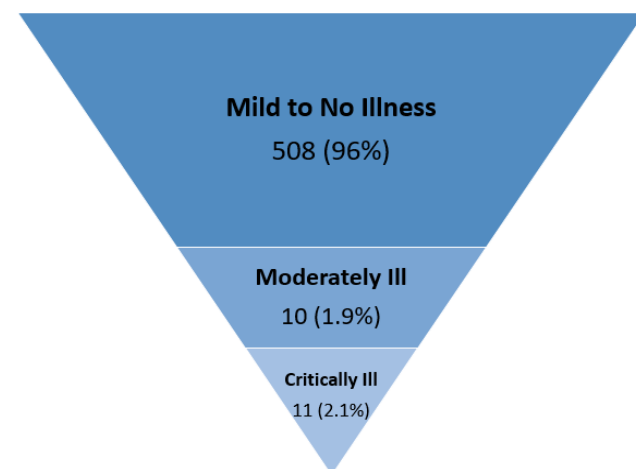
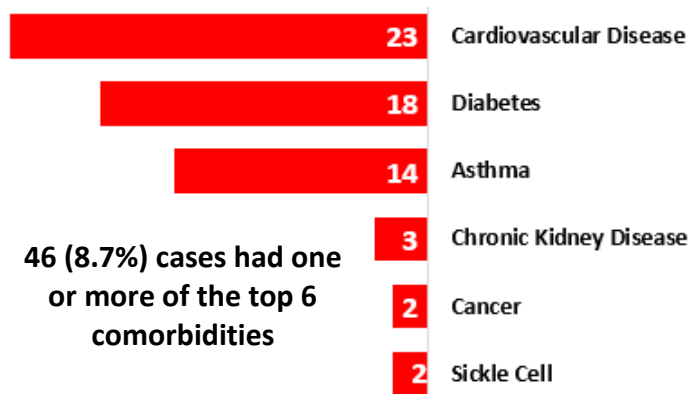
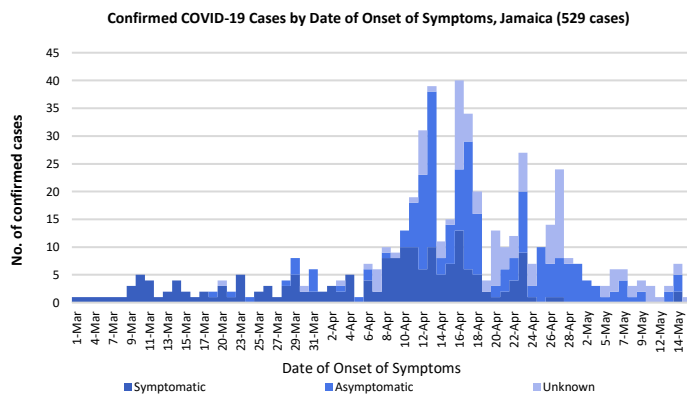


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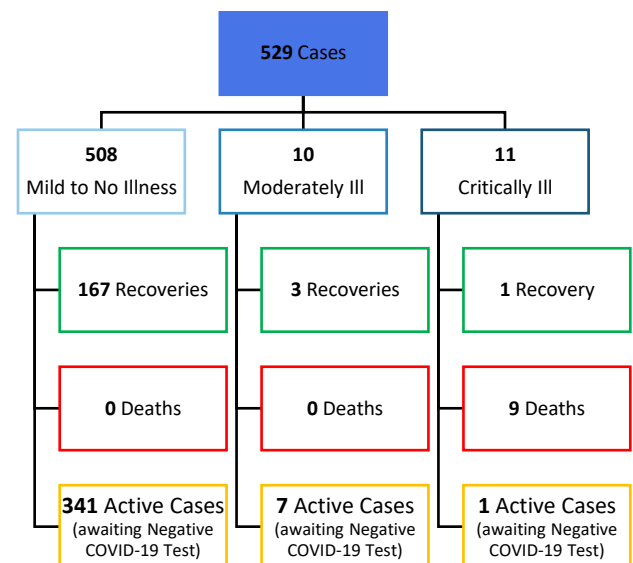
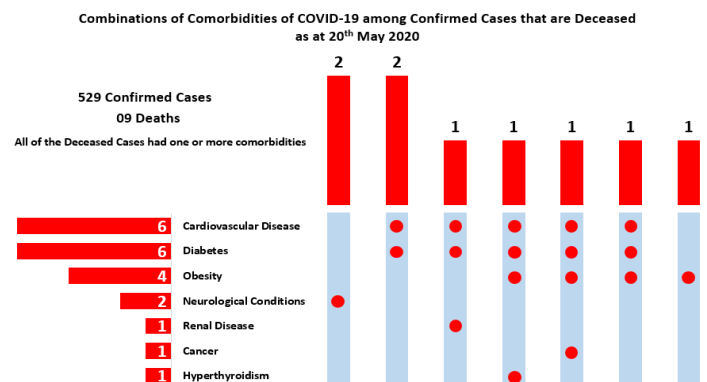
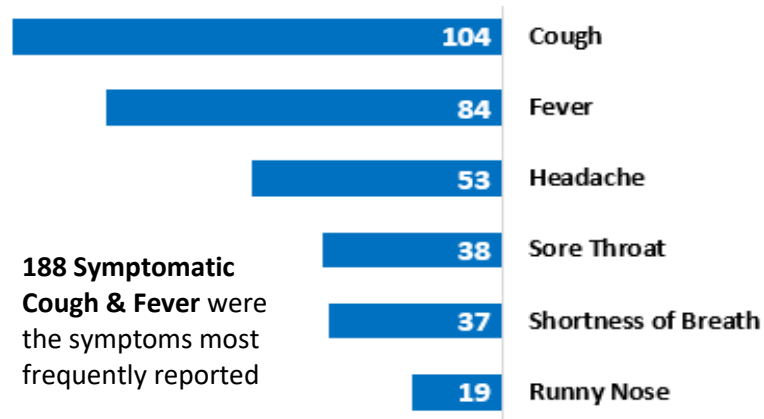


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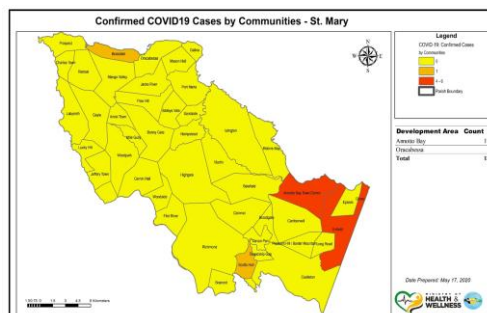
CLINICAL STATUS OF CONFIRMED COVID-19 CASES



Of note, among the active cases there are no moderately or critically ill cases at this time.



CONTACT TRACING & COMMUNITY SURVEILLANCE IN ST. MARY



Case Count	Community
6	Enfield
6	Dover
4	Annotto Bay Town Centre
1	Boscobel
1	Scotts Hall

The St. Mary Health Department identified two (2) confirmed cases through Respiratory Surveillance in the communities of Enfield and Dover. Contact tracing identified 35 named contacts of which 14 additional COVID-19 cases were confirmed.

Additionally, Community Surveillance activities were conducted between May 3rd and 17th, 2020 in the three quarantine communities in St. Mary - Dover, Enfield and Annotto Bay:

- 2277 households visited with most households being visited twice
- 3440 persons assessed
- No Additional Cases Identified

RESEARCH PAPER

ABSTRACT

Low Glycemic Index Jamaican Foods Preserve Activity Levels of Antioxidant Enzymes and Histology of the Pancreas and Liver in Diabetic Rats

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¹Scientific Research Council, ²The Biotechnology Centre and ³Department of Basic Medical Sciences, University of the West Indies, Mona, Kingston, Jamaica.

Objectives: To investigate the effects of the consumption of low (boiled banana and sweet potato), medium (boiled yellow yam and ripe plantain) and high (boiled sweet yam and dasheen) GI Jamaican foods on biochemical variables and histology of the pancreas and liver in high-fat diet-fed and streptozotocin-induced diabetic rats (HFD-STZ).

Method: The effects of the foods on antioxidant enzymes activity, liver, pancreas histology and blood glucose levels were determined and compared in adult HFD-STZ (35 mg/kg, i.p.) and normal rats (control), divided into eight groups (8 rats each) for twelve weeks. Serum and tissue biochemical factors were measured and organ histoarchitecture examined at the end of the study.

Results: Our findings suggest that it may be possible to improve glycemic control, antioxidant defense system and histoarchitecture of the pancreas and liver via consumption of low and medium GI foods in rats.

Conclusion: Incorporating boiled banana, sweet potato, yellow yam and ripe plantain in the diabetic menu may aid in better management of *Diabetes mellitus*.



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