## WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

### **Be Ready for Hurricane Season**

Learn Tips to Help Keep You Safe During Hurricane Season

Hurricanes are dangerous and destructive weather events that can cause catastrophic damage to coastlines and several hundred miles inland. Hurricanes can produce winds exceeding 155 miles per hour as well as <u>tornadoes</u>. According to the <u>Federal Emergency Management AgencyExternal</u>, a hurricane is a type of tropical cyclone or severe tropical storm that forms in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the Pacific Ocean.

All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes. Parts of the Southwest United States and the Pacific Coast also experience heavy rains and floods each year from hurricanes spawned off Mexico. The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October. The Eastern Pacific hurricane season begins May 15 and ends November 30. Hawaii is part of the Central Pacific, and is subject to a tropical cyclone season of June 1 to November 30.

Important hurricane readiness tips from CDC:

- Avoid flooded areas: Take precautions before, during, and after a flood.
- After a hurricane: Learn how to avoid injuries and make sure your food and water are safe.
- Prepare for a hurricane: Take basic steps now to ensure your safety should a storm hit.
- Get emergency supplies: Stock your home and your car with supplies.
- Make a plan: Create a family disaster plan.
- Prepare to Evacuate: Never ignore an evacuation order.
- <u>Don't evacuate, if you are ordered NOT to</u>: Get through the storm in the safest possible manner.
- Protect older adults: Understand older adult health and medical concerns.
- Protect your pets: Ensure your pet's safety before, during, and after an emergency.
- <u>Prevent carbon monoxide (CO) poisoning</u>: Place generators outside at least 20 feet away.

### SIX DOMAINS OF PREPAREDNESS

The Public Health Emergency Preparedness program works to advance six main areas of preparedness so state and local public health systems are better prepared for emergencies that impact the public's health.



Community Resilience: Preparing for and recovering from



Incident management:
Coordinating an effective response



Countermeasures and Mitigation: Getting medicines and supplies where they are needed



Surge Management:

Expanding medical services to handle large events



Information Management: Making sure people have information to take action



Biosurveillance: Investigating and identifying health

www.cdc.gov/phpr/readiness





EPI WEEK 19



SYNDROMES
PAGE 2



CLASS 1 DISEASES
PAGE 4



INFLUENZA
PAGE 5



DENGUE FEVER

PAGE 6

PAGE 7



GASTROENTERITIS

RESEARCH PAPER
PAGE 8

## SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica



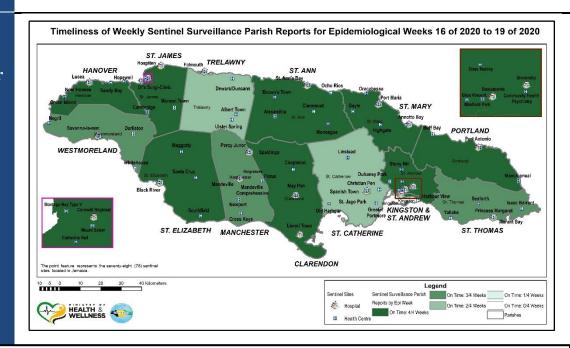
A syndromic surveillance system is good for early detection of and response to public health events.

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 – 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 <u>late</u>.



### REPORTS FOR SYNDROMIC SURVEILLANCE

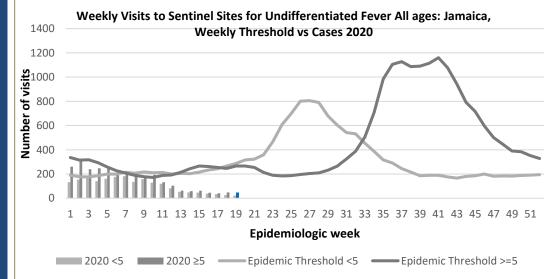
### **FEVER**

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



### 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°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.



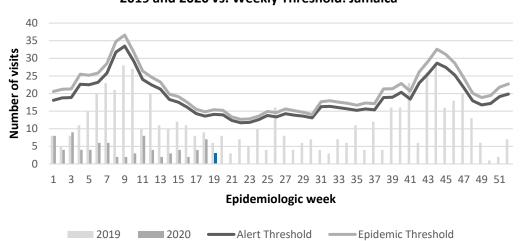
### FEVER AND JAUNDICE

Temperature of  $>38^{\circ}C/100.4^{\circ}F$  (or recent history of fever) in a previously healthy person presenting with jaundice.

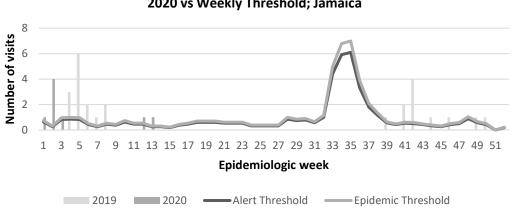
The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.

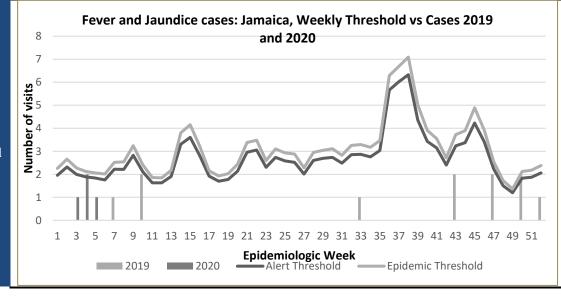


# Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 and 2020 vs. Weekly Threshold: Jamaica



# Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2019 and 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



### **ACCIDENTS**

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

### **KEY**

VARIATIONS OF BLUE SHOW CURRENT WEEK



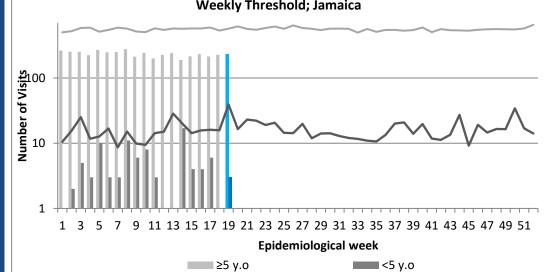
# 

### **VIOLENCE**

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



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

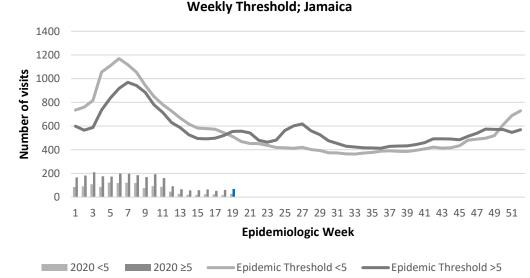


GASTROENTERITIS

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





4 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



### **CLASS ONE NOTIFIABLE EVENTS**

### Comments

			Confirmed YTD		AFP Field Guides
	CLASS 1 EV	/ENTS	CURRENT YEAR 2020	PREVIOUS YEAR 2019	from WHO indicate that for an effective
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		5	6	surveillance system, detection rates for
	Cholera		0	0	AFP should be 1/100,000
ATI	Dengue Hemorrhagic Fever*		NA	NA	population under 15
SRN	Hansen's Disease (Leprosy)		0	0	years old (6 to 7) cases annually.
L /INTERN INTEREST	Hepatitis B		0	8	
AL /	Hepatitis C		0	2	Pertussis-like
⁄NO	HIV/AIDS		NA	NA	syndrome and Tetanus are clinically confirmed classifications.
ATI	Malaria (Imported)		0	0	
Z	Meningitis (Clinically confirmed)		1	5	
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever data include Dengue related deaths;
ZI X	Meningococcal Meningitis		0	0	
H IGH MORBIDIT MORTALIY	Neonatal Tetanus		0	0	
	Typhoid Fever		0	0	** Figures include
	Meningitis H/Flu		0	0	all deaths associated with pregnancy
	AFP/Polio		0	0	reported for the
	Congenital Rubella Syndrome		0	0	period. * 2019 YTD figure was updated.
<b>⊘</b> i	Congenital S	yphilis	0	0	*** CHIKV IgM
MMES	Fever and	Measles	0	0	positive
	Rash	Rubella	0	0	cases  **** Zika
(DC)	Maternal Deaths**		13	23	PCR positive cases
L PR	Ophthalmia Neonatorum		23	74	
CIA	Pertussis-like syndrome		0	0	
SPECIAL PROGRA	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		0	11	
	Yellow Fever		0	0	
	Chikungunya***		0	0	
	Zika Virus****		0	0	NA- Not Available







INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE 30 sites. Actively pursued

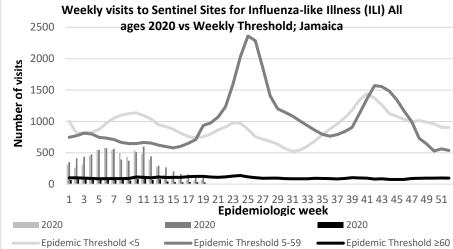


# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 19

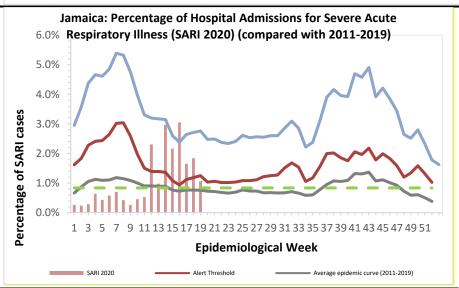
May 03, 2020-May 09, 2020 Epidemiological Week 19

	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		



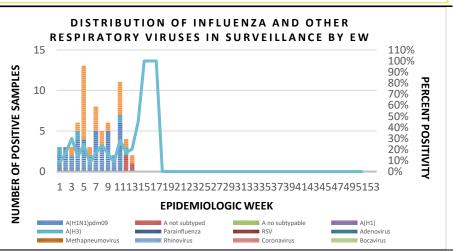
### **Epi Week Summary**

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-Barthélémy influenza activity was stable. In the Dominican Republic, influenza activity slightly decreased with influenza A(H1N1)pdm09 predominance and influenza B/Yamagata cocirculating. 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

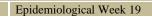


HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

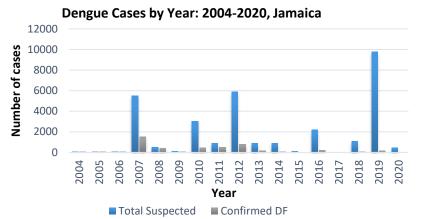


## Dengue Bulletin

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







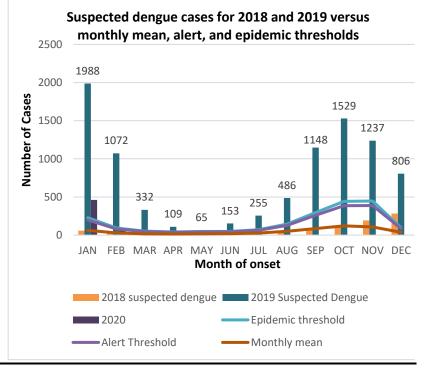
Reported suspected and confirmed dengue with symptom onset in week 19 of 2020

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

#### Symptoms of Dengue fever Febrile phase Critical phase sudden-onset fever hypotension headache pleural effusion ascites mouth and nose bleeding gastrointestinal bleeding muscle and joint pains Recovery phase altered level of vomiting consciousness seizures rash itchina diarrhea slow heart rate

### 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.





7 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued





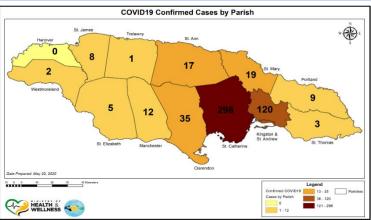
## **COVID-19 Epidemiological Report**

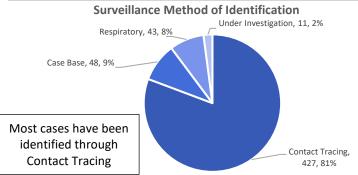
Data as at May 20, 2020



### **Key Points**

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







NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

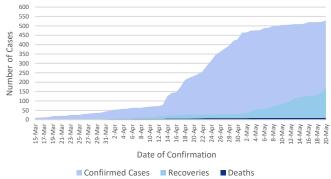


### HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

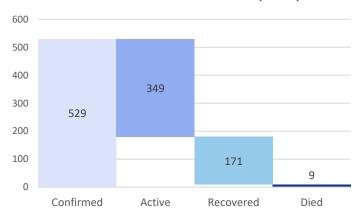


SENTINEL REPORT- 78 sites. Automatic reporting



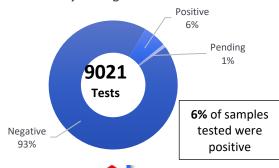


### Clinical Status of Confirmed Cases (n=529)

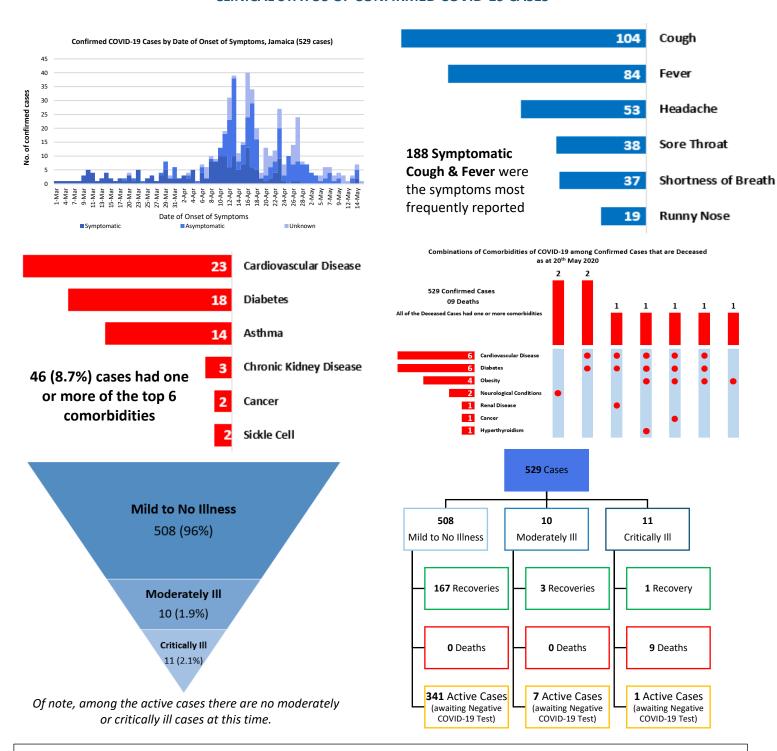


Distribution by Community with Confirmed Cases ≥ 10					
Case Count	Community	Parish			
35	Linstead	St. Catherine			
34	Old Harbour	St. Catherine			
22	Greater Portmore	St. Catherine			
19	Waterford	St. Catherine			
17	Ensom	St. Catherine			
16	Ewarton	St. Catherine			
11	Constant Spring	St. Andrew	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

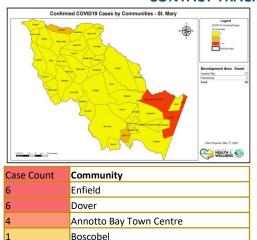
### **Laboratory Testing for COVID-19**



#### CLINICAL STATUS OF CONFIRMED COVID-19 CASES



#### **CONTACT TRACING & COMMUNITY SURVEILLANCE IN ST. MARY**



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 3<sup>rd</sup> and 17<sup>th</sup>, 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

Francis R D<sup>1,2,3</sup>, Gardner M T<sup>3</sup>, Wheatley A O<sup>2</sup> and Asemota H N<sup>2,3</sup>

<sup>1</sup>Scientific Research Council, <sup>2</sup>The Biotechnology Centre and <sup>3</sup>Department 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*.



The Ministry of Health and Wellness 24-26 Grenada Crescent Kingston 5, Jamaica Tele: (876) 633-7924

Email: surveillance@moh.gov.jm



1 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

