

Week ending December 17, 2016

Epidemiology Week 50

# WEEKLY EPIDEMIOLOGY BULLETIN

## NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

### Weekly Spotlight

### 2016 Health Review



**February –ZIKA** On February 1 WHO declared Zika and associated microcephaly and other neurological disorders a Public Health Emergency of International Concern (PHEIC). There were also concerns about the virus and the Rio 2016 Olympic Games

**March –YELLOW FEVER** In early 2016, Angola suffered its first yellow fever outbreak in 30 years

**April –DIABETES** World Health Day 2016: Beat Diabetes



**June –EBOLA** End of the largest-ever Ebola outbreak, which claimed at least 11,310 lives in the three most affected countries



**July –HEPATITIS** World Hepatitis Day –around the world 400 million people are infected with hepatitis B and C, more than 10 times the

number of people living with HIV



**August –MATERNAL HEALTH** It is estimated that every year, worldwide, 303 000 women die during pregnancy and childbirth, 2.7 million babies die during the first 28 days of life and 2.6 million babies are stillbirth. With quality health care, many of these deaths could be prevented



**September –ANTIMICROBIAL RESISTANCE** For the first time, Heads of State committed to taking a broad, coordinated approach to address the root cause of AMR across multiple sectors, especially human health, animal health and agriculture



**October –HURRICANE MATTHEW** With damage assessment from Hurricane Matthew still underway, PAHO/WHO deployed field teams even before the storm affected areas in Haiti, the Bahamas, Cuba and Jamaica, and was preparing for a possible cholera upsurge in Haiti



**November –ZIKA** Zika virus and associated consequences remain a significant public health challenge requiring intense action, but they no longer represent a PHEIC

**December –HIV** For World AIDS Day, WHO released new guidelines on HIV self-testing to improve access to uptake of HIV diagnosis. Lack of an HIV diagnosis is a major obstacle to being able to offer Antiretroviral therapy to everyone with HIV



Read more: <http://who.int/features/2016/EndOfYearReview2016EN.pdf?ua=1>

## EPI WEEK 50



SYNDROMES

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CLASS 1 DISEASES

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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



SENTINEL  
REPORT- 79 sites\*.  
Automatic reporting

\*Incidence/Prevalence cannot be calculated

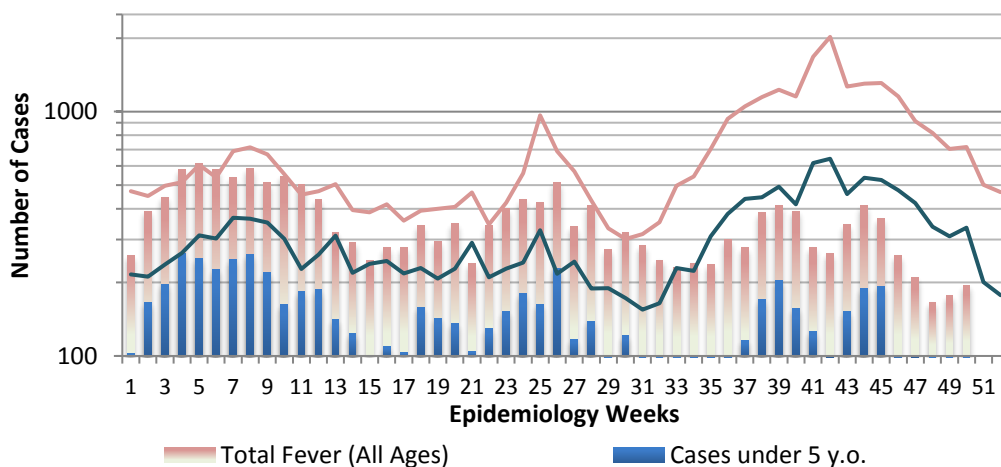
## REPORTS FOR SYNDROMIC SURVEILLANCE

### FEVER

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**Fever in under 5y.o. and Total Population 2016 vs Epidemic Thresholds, Epidemiology Week 50**

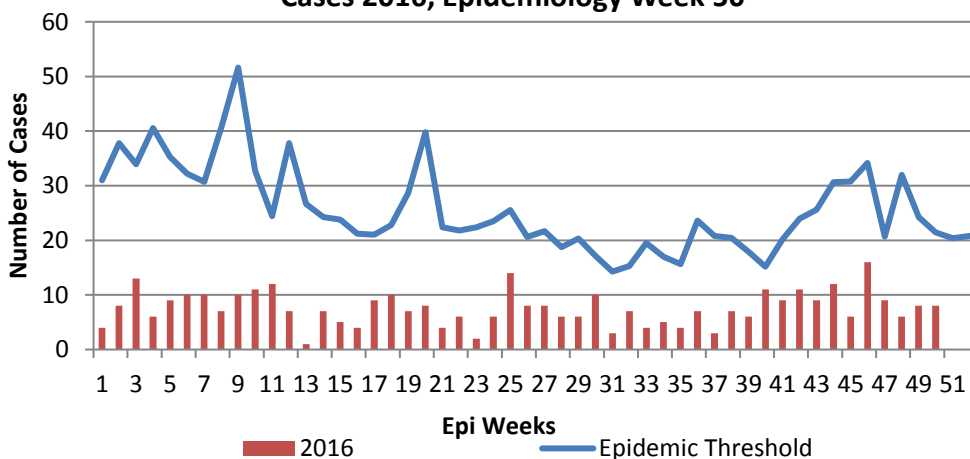


### FEVER AND NEUROLOGICAL

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (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 Neurological Symptoms Weekly Threshold vs Cases 2016, Epidemiology Week 50**

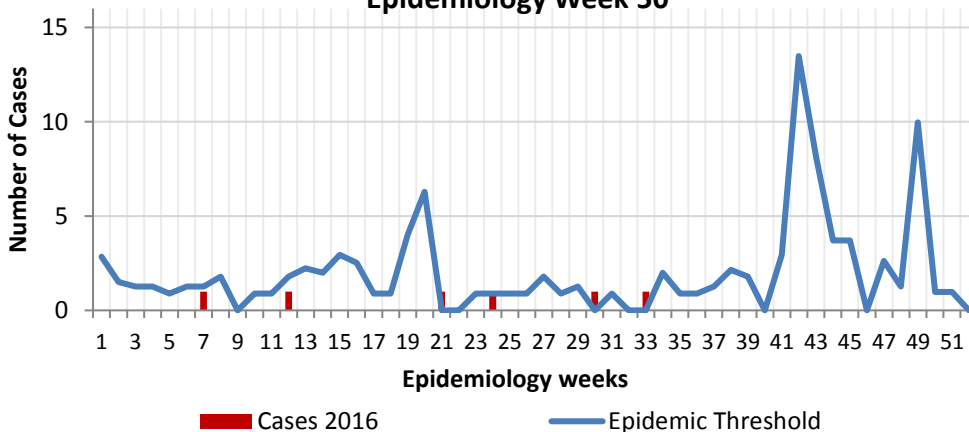


### FEVER AND HAEMORRHAGIC

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



**Fever and Haem Weekly Threshold vs Cases 2016, Epidemiology Week 50**



**NOTIFICATIONS-**  
All clinical sites



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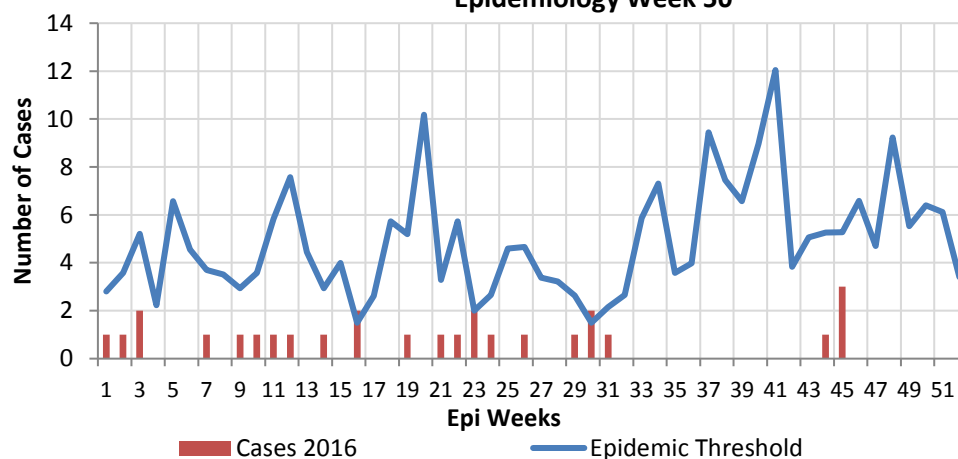
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**FEVER AND JAUNDICE**

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



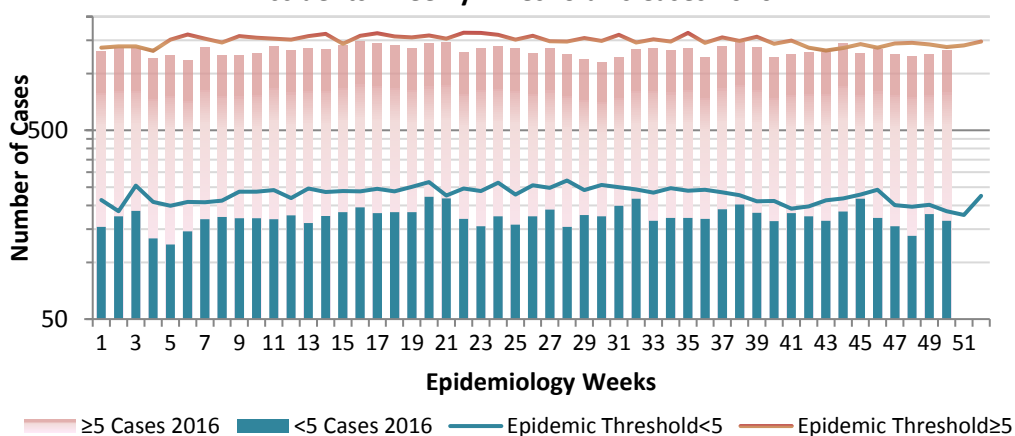
**Fever and Jaundice Weekly Threshold vs Cases 2016, Epidemiology Week 50**

**ACCIDENTS**

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



**Accidents Weekly Threshold vs Cases 2016**

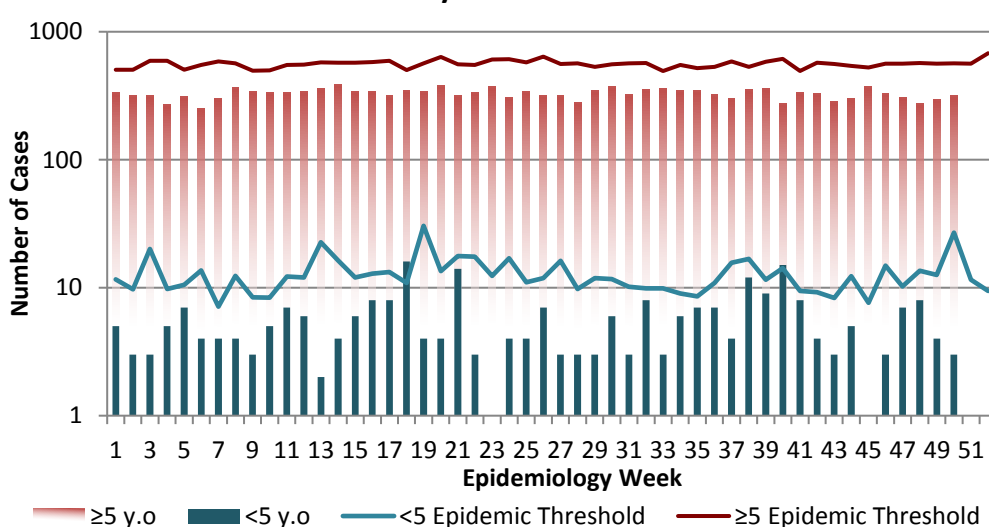
**VIOLENCE**

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

The epidemic threshold is used to confirm the emergence of an epidemic so as to step-up appropriate control measures.



**Violence Weekly Threshold vs Cases 2016**



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## CLASS ONE NOTIFIABLE EVENTS

## Comments

			CONFIRMED YTD		
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		102	130	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.
	Cholera		0	0	
	Dengue Hemorrhagic Fever <sup>1</sup>		2	0	
	Hansen's Disease (Leprosy)		1	0	
	Hepatitis B		27	32	
	Hepatitis C		4	10	
	HIV/AIDS - See HIV/AIDS National Programme Report				Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Malaria (Imported)		2	0	
	Meningitis (Clinically confirmed)		48	67	
EXOTIC/ UNUSUAL	Plague		0	0	
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0	The TB case detection rate established by PAHO for Jamaica is at least 70% of their calculated estimate of cases in the island, this is 180 (of 200) cases per year.
	Neonatal Tetanus		0	0	
	Typhoid Fever		1	3	
	Meningitis H/Flu		0	0	
SPECIAL PROGRAMMES	AFP/Polio		0	0	*Data not available  1 Dengue Hemorrhagic Fever data include Dengue related deaths;  2 Maternal Deaths include early and late deaths.
	Congenital Rubella Syndrome		0	0	
	Congenital Syphilis		0	0	
	Fever and Rash	Measles	0	0	
		Rubella	0	0	
	Maternal Deaths <sup>2</sup>		51	58	
	Ophthalmia Neonatorum		416	268	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		8	13	
	Tetanus		0	1	
	Tuberculosis		*Figure being validated	99	
	Yellow Fever		0	0	
	Chikungunya		0	1	 
	Zika Virus		203	0	



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# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

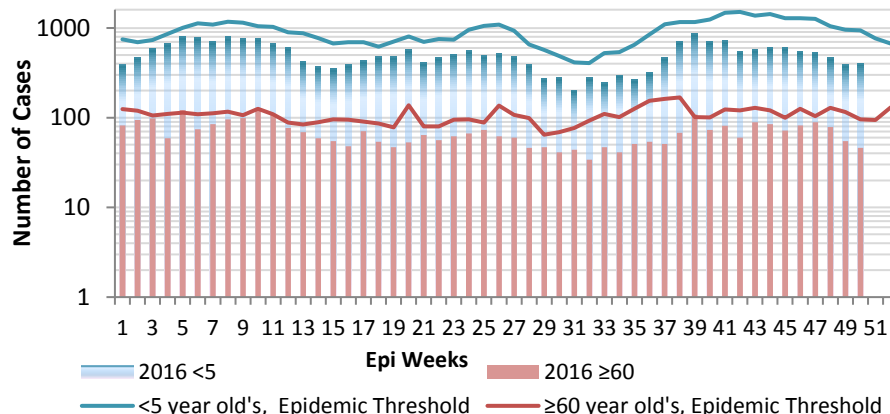
# EW 50

Dec 11-17, 2016

Epidemiology Week 50

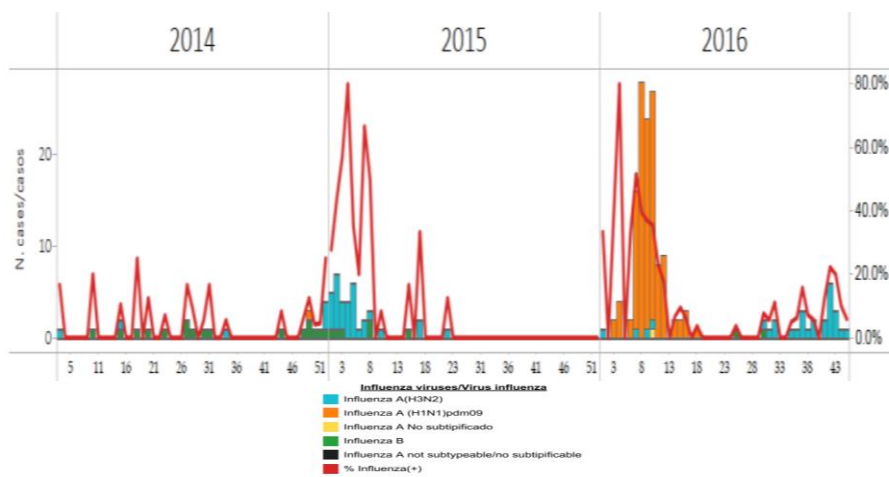
September 2016		
	EW 50	YTD
SARI cases	23	1043
<b>Total Influenza positive Samples</b>	<b>1</b>	<b>160</b>
<b>Influenza A</b>	<b>0</b>	<b>155</b>
H3N2	0	20
H1N1pdm09	0	80
Not subtyped	0	55
<b>Influenza B</b>	<b>1</b>	<b>4</b>
<b>Other</b>	<b>0</b>	<b>1</b>

### Fever & Resp Weekly Threshold vs Cases 2016, Epidemiology Week 50



### Comments:

During EW 46, SARI activity increased (2.7%) above the alert threshold. During EW 46, SARI cases were most frequently reported among adults aged from 15 to 49 years of age. During EW 46, pneumonia case-counts slightly decreased (91 cases in EW 46), with the highest proportion in Kingston and Saint Andrew. During EW 46, influenza activity decreased (5.9% positivity for influenza) with influenza A(H3N2) predominating; no other respiratory virus activity was reported.



### INDICATORS

#### Burden

Year to date, respiratory syndromes account for 4.3% of visits to health facilities.

#### Incidence

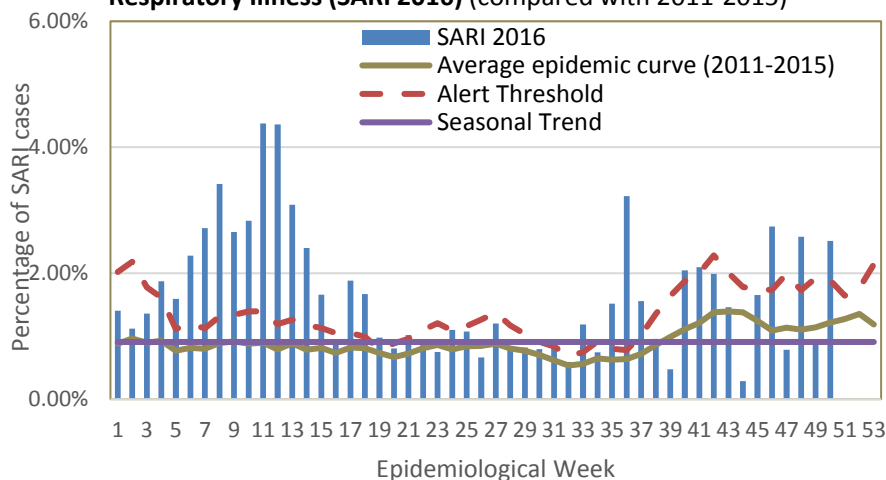
Cannot be calculated, as data sources do not collect all cases of Respiratory illness.



#### Prevalence

Not applicable to acute respiratory conditions.

### Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2016) (compared with 2011-2015)



**\*Additional data needed to calculate Epidemic Threshold**



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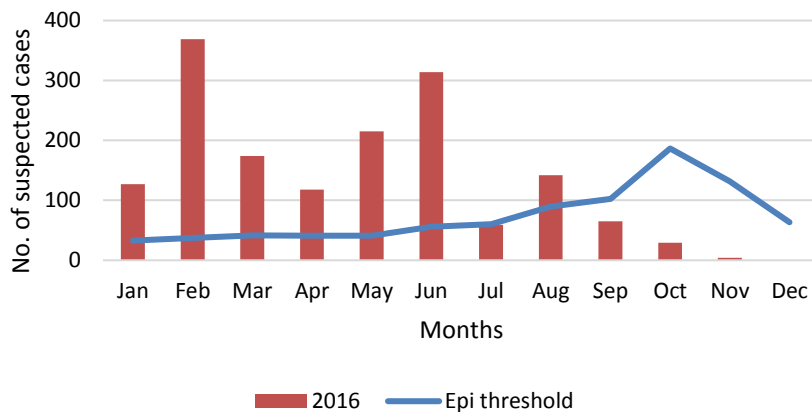
# Dengue Bulletin

Dec. 11-17, 2016

Epidemiology Week 50

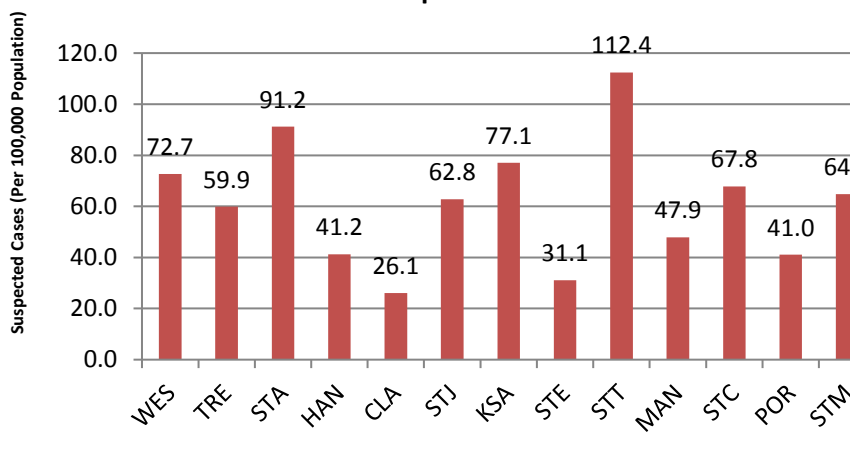


## 2016 Cases vs. Epidemic Threshold



DISTRIBUTION					
Year-to-Date Suspected Dengue Fever					
	M	F	Un-kwn	Total	%
<1	4	10	0	14	1
1-4	24	25	0	45	5
5-14	126	135	3	229	19
15-24	101	180	4	245	20
25-44	151	373	6	451	29
45-64	62	184	2	209	10
≥65	9	18	0	25	2
Unknown	48	89	444	136	14
<b>TOTAL</b>	<b>525</b>	<b>1014</b>	<b>730</b>	<b>2269</b>	<b>100</b>

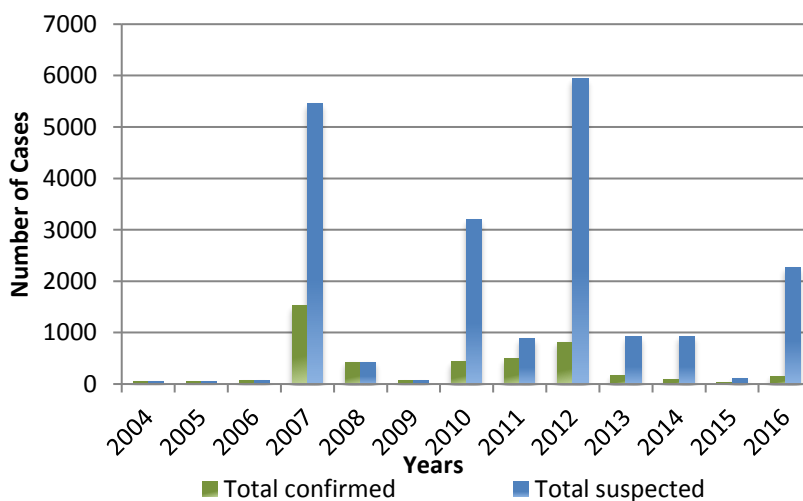
## Suspected Dengue Fever Cases per 100,000 Parish Population



## Weekly Breakdown of suspected and confirmed cases of DF,DHF,DSS,DRD

		2016		2015 YTD
		EW 50	YTD	
Total Suspected Dengue Cases		3	2269	30
Lab Confirmed Dengue cases		0	154	2
CONFIRMED	DHF/DSS	0	3	0
	Dengue Related Deaths	0	0	0

## Dengue Cases by Year: 2004-2016, Jamaica



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# Gastroenteritis Bulletin

# EW 50

Dec. 11-17, 2016

Epidemiology Week 50

## Weekly Breakdown of Gastroenteritis cases

Year	EW 50			YTD		
	<5	≥5	Total	<5	≥5	Total
2016	181	211	392	6,735	10,615	17,350
2015	149	171	320	10,308	11,338	21,646

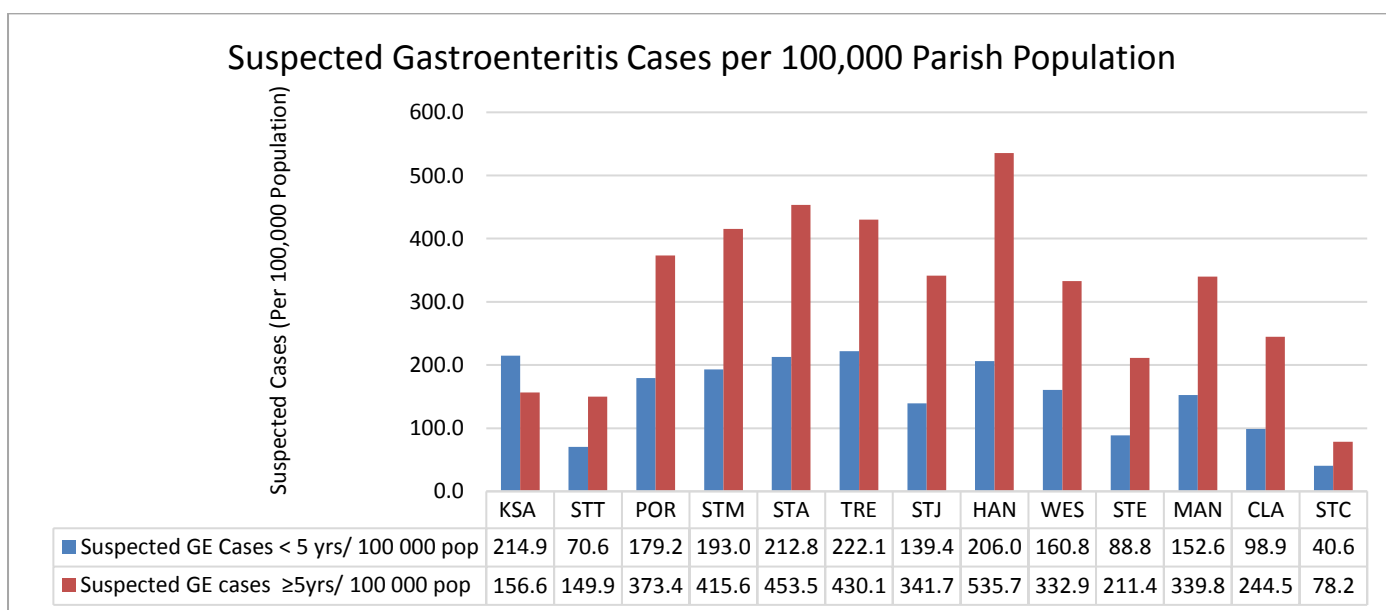
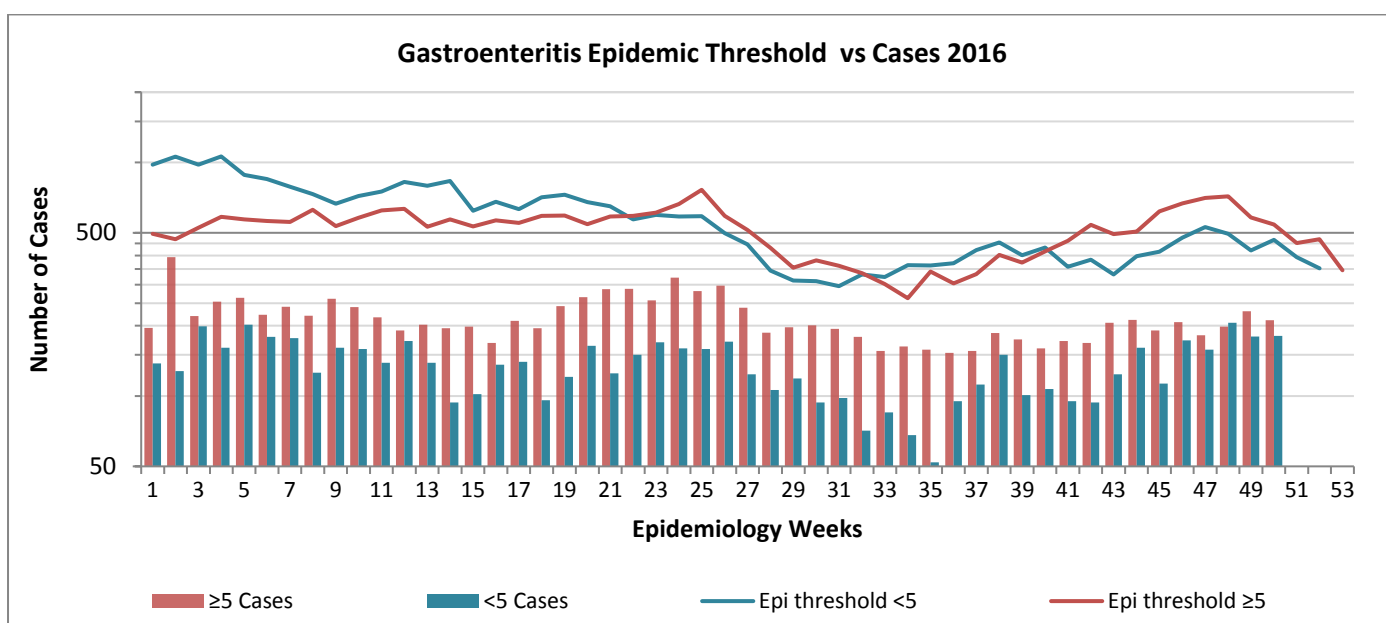
### Gastroenteritis:

In Epidemiology Week 50, 2016, the total number of reported GE cases showed a 9.71% increase compared to EW 50 of the previous year.

The year to date figure showed a 17.21% decrease in cases for the period.



Figure 1: Total Gastroenteritis Cases Reported 2015-2016



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# RESEARCH PAPER

## A Comparison of the Nutritional Status of HIV- positive Children living in Family Homes and an 'Institutionalized' Children's Home

*S Dawson, S Robinson, J DeSouza*

*Epidemiology Research and Training Unit, Ministry of Health, Kingston, Jamaica*

**Objective:** To assess the nutritional status of HIV-infected children living in family homes and in an institution.

**Design and Method:** A cross-sectional descriptive study was conducted involving 31 HIV- positive children with anthropometric measurements used as outcome indicators. The children who met the inclusion criteria were enrolled, and nutritional statuses for both sets of children were assessed and compared.

**Results:** Fifteen of the children (48.4%) lived in family homes and sixteen (51.6%) in the institution, with a mean age of  $7.2 \pm 3.2$  years. Significant differences between the two settings were found for the means, Weight-For-Height, WFH ( $p=0.020$ ) and Body Mass Index, BMI ( $p=0.005$ ); children in family homes having significantly better WFH and BMI. Four of the children (13.3%) were underweight; 3 from the institution (18.8%) and 1 (6.7%) from a family home. Two children (6.9%) were found to be 'at risk' of being overweight.

**Conclusion:** Although anthropometric indices for most of these children are within the acceptable range, there seems to be significant differences in nutritional status between infected children resident in family homes, and those in the institution. The factors responsible for such differences are not immediately obvious, and require further investigation. The influence of ARV therapy on nutritional outcomes in these settings require prospective studies which include dietary, immunologic and biochemical markers, in order to provide data that may help to improve the medical nutritional management of these children.



The Ministry of Health  
24-26 Grenada Crescent  
Kingston 5, Jamaica  
Tele: (876) 633-7924  
Email: [surveillance@moh.gov.jm](mailto:surveillance@moh.gov.jm)



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