

# WEEKLY EPIDEMIOLOGY BULLETIN

## NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

### Weekly Spotlight

#### WHO Guidelines on Ethical Issues in Public Health Surveillance (PART 1)

1. Countries have an obligation to develop appropriate, feasible, sustainable public health surveillance systems. Surveillance systems should have a clear purpose and a plan for data collection, analysis, use and dissemination



2. Countries have an obligation to develop appropriate, effective mechanisms to ensure ethical surveillance

3. Surveillance data should be collected only for a legitimate public health purpose.

4. Countries have an obligation to ensure that the data collected are of sufficient quality, including being timely, reliable and valid, to achieve public health goals.

5. Planning for public health surveillance should be guided by transparent governmental priority-setting.



Downloaded from: <http://apps.who.int/iris/bitstream/10665/255721/1/9789241512657-eng.pdf?ua=1>

### EPI WEEK 24



SYNDROMES

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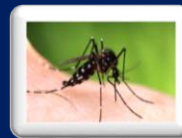
CLASS 1 DISEASES

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INFLUENZA

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DENGUE FEVER

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GASTROENTERITIS

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RESEARCH PAPER

PAGE 8



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

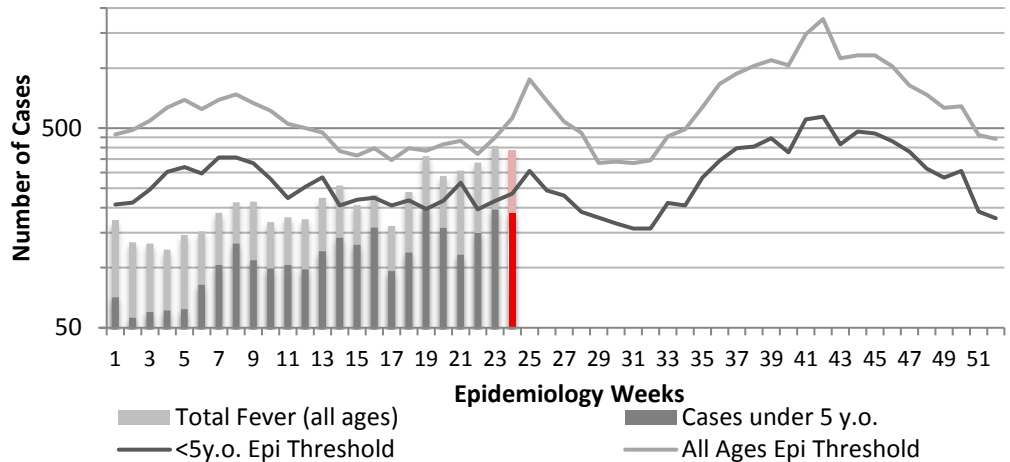
Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**KEY**

**RED** CURRENT WEEK

Fever in under 5y.o. and Total Population 2017 vs Epidemic Thresholds, Epidemiology Week 24

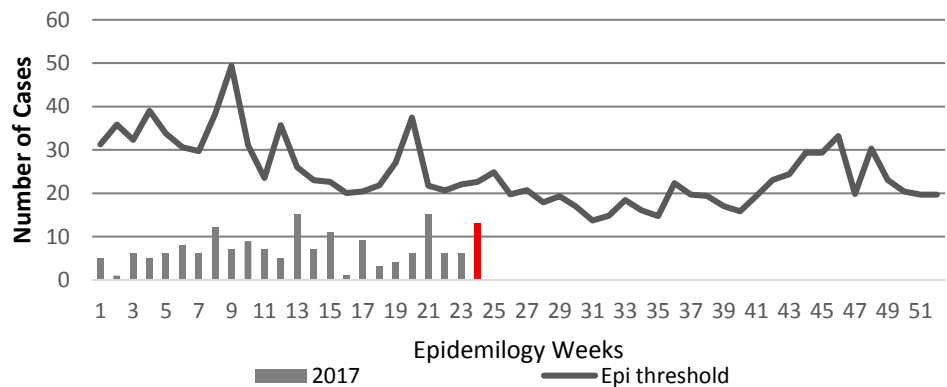


## FEVER AND NEUROLOGICAL

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 2017, Epidemiology Week 24

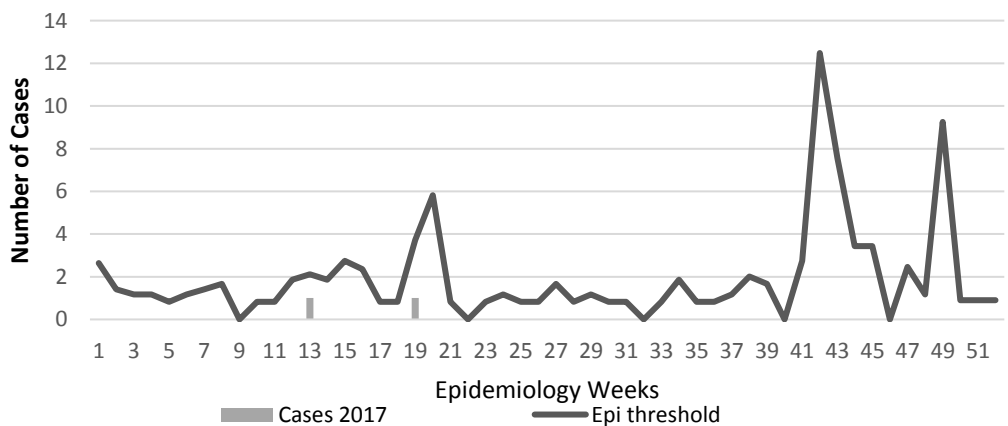


## FEVER AND HAEMORRHAGIC

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 2017, Epidemiology Week 24



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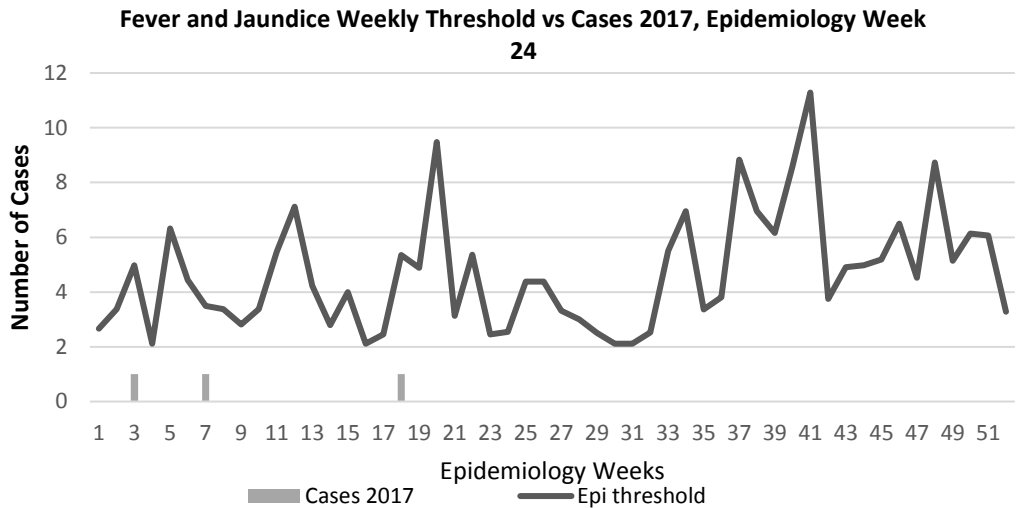


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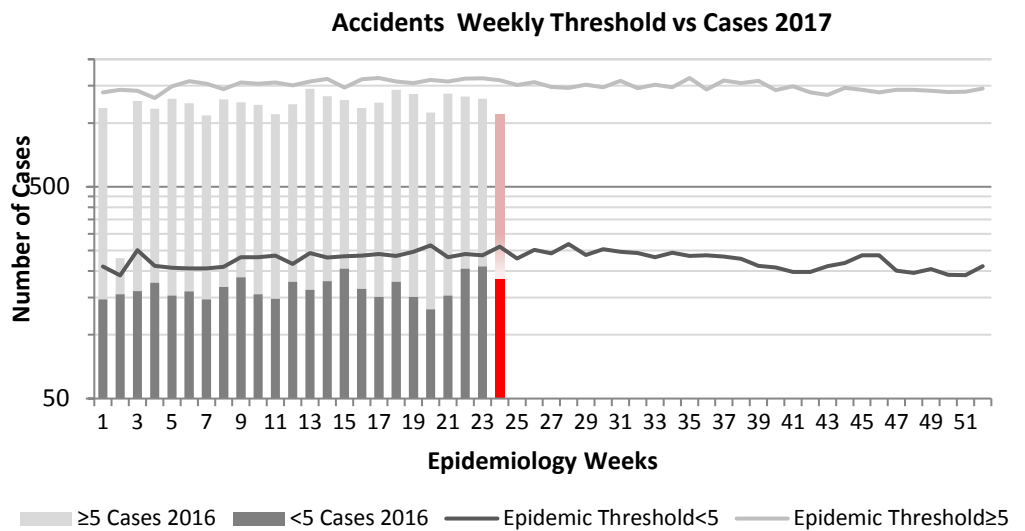
### FEVER AND JAUNDICE

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



### ACCIDENTS

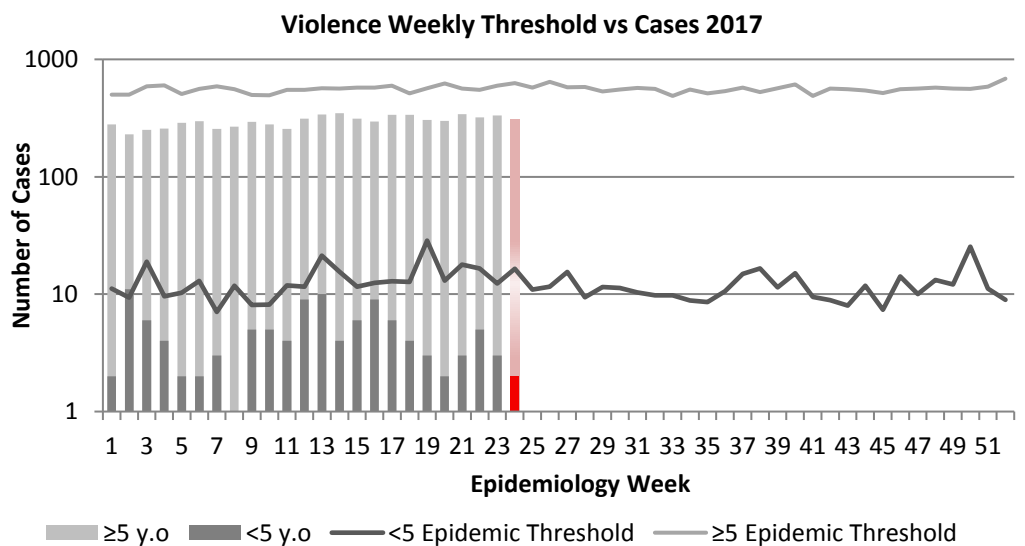
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.



### 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.



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**CLASS ONE NOTIFIABLE EVENTS**

**Comments**

	CLASS 1 EVENTS	CONFIRMED YTD			
		CURRENT YEAR	PREVIOUS YEAR		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	49	79	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>	0	0		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	14	14		
	Hepatitis C	2	4		
	HIV/AIDS - See HIV/AIDS National Programme Report				
	Malaria (Imported)	2	1		Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Meningitis (Clinically confirmed)	19	32		
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	0	0		
	Meningitis H/Flu	0	0		
SPECIAL PROGRAMMES	AFP/Polio	0	0	*Data not available	
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0		0
		Rubella	0		0
	Maternal Deaths <sup>2</sup>	16	25		
	Ophthalmia Neonatorum	101	200		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	3	6		
	Tetanus	1	0		
	Tuberculosis	0	11		
Yellow Fever	0	0			
	Chikungunya	0	0	 	
	Zika Virus	0	56		



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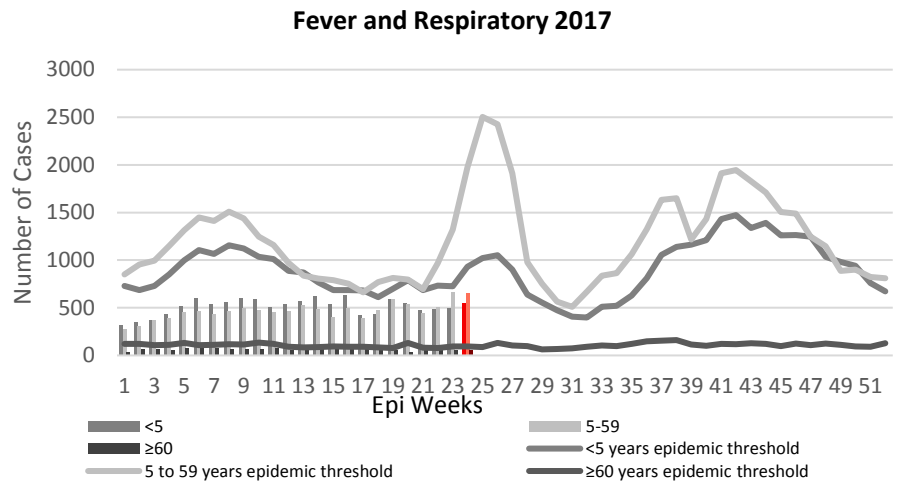
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

*EW 24*

June 11- June 17, 2017

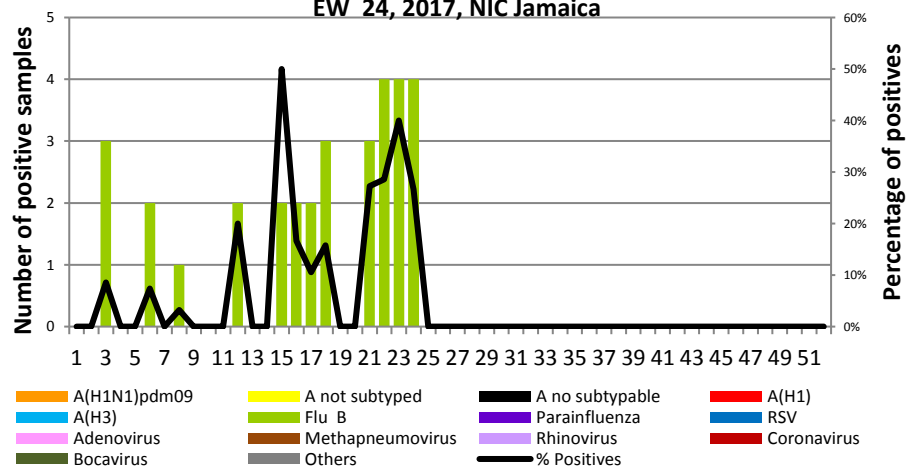
Epidemiology Week 24

June 2017		
	EW 24	YTD
SARI cases	5	245
<b>Total Influenza positive Samples</b>	<b>2</b>	<b>26</b>
<b>Influenza A</b>	<b>0</b>	<b>0</b>
H3N2	0	0
H1N1pdm09	0	0
Not subtyped	0	0
<b>Influenza B</b>	<b>4</b>	<b>26</b>
<b>Other</b>	<b>0</b>	<b>0</b>



**Comments:**  
 During EW 23, SARI activity slightly decreased and was below the average epidemic curve. During EW 23, SARI cases were most frequently reported among children between 0-4 years of age. During EW 23, few influenza detections were reported, with increased activity (40% positivity) and influenza B predominating.

**Distribution of Influenza and other respiratory viruses among SARI cases by EW surveillance EW 24, 2017, NIC Jamaica**



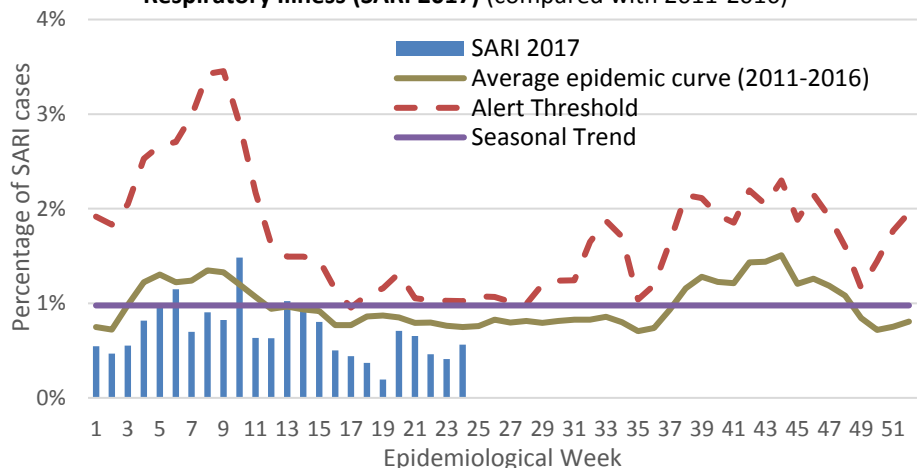
## INDICATORS

**Burden**  
 Year to date, respiratory syndromes account for 4.4% 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 2017) (compared with 2011-2016)**



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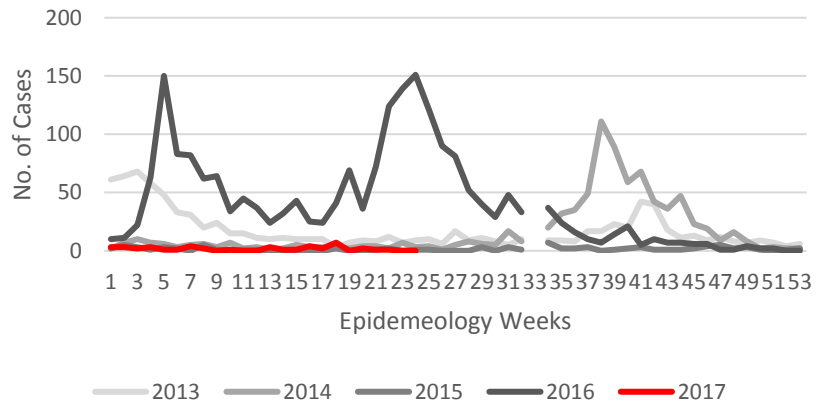
# Dengue Bulletin

June 11- June 17, 2017

Epidemiology Week 24



Dengue Cases by Epidemiology Weeks 2013-2017

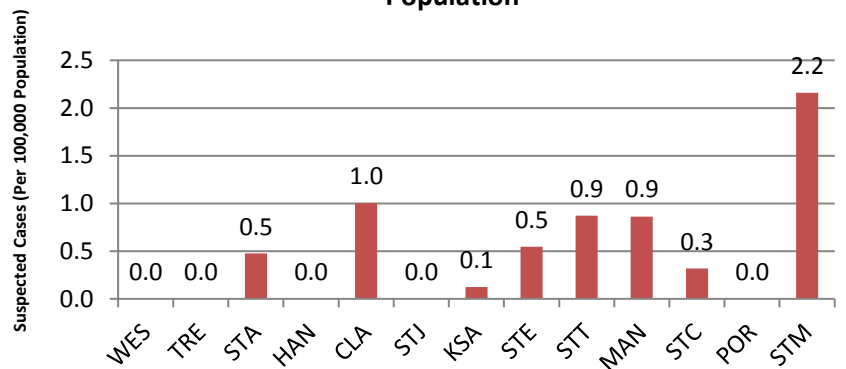


## DISTRIBUTION

### Year-to-Date Suspected Dengue Fever

	M	F	Un-known	Total	%
<1	2	0	0	2	4
1-4	2	2	0	4	8
5-14	5	7	0	12	24
15-24	5	4	0	9	18
25-44	9	5	1	15	30
45-64	2	4	0	6	12
≥65	0	0	0	0	0
Unknown	1	1	0	2	4
<b>TOTAL</b>	<b>26</b>	<b>23</b>	<b>1</b>	<b>50</b>	<b>100</b>

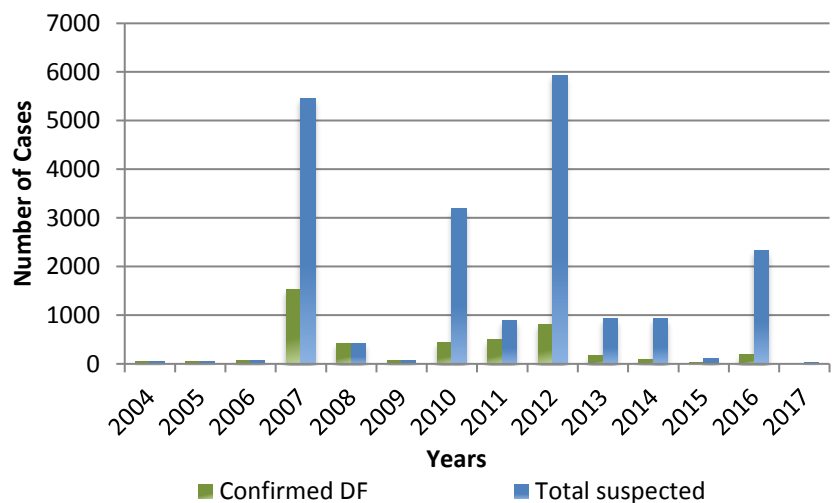
Suspected Dengue Fever Cases per 100,000 Parish Population



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

		2017		2016 YTD
		EW 24	YTD	
Total Suspected Dengue Cases		0	48	1366
Lab Confirmed Dengue cases		0	2	104
<b>CONFIRMED</b>	DHF/DSS	0	0	3
	Dengue Related Deaths	0	0	0

Dengue Cases by Year: 2007-2017, Jamaica



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# Gastroenteritis Bulletin

EW  
24

June 11- June 17, 2017

Epidemiology Week 24

## Weekly Breakdown of Gastroenteritis cases

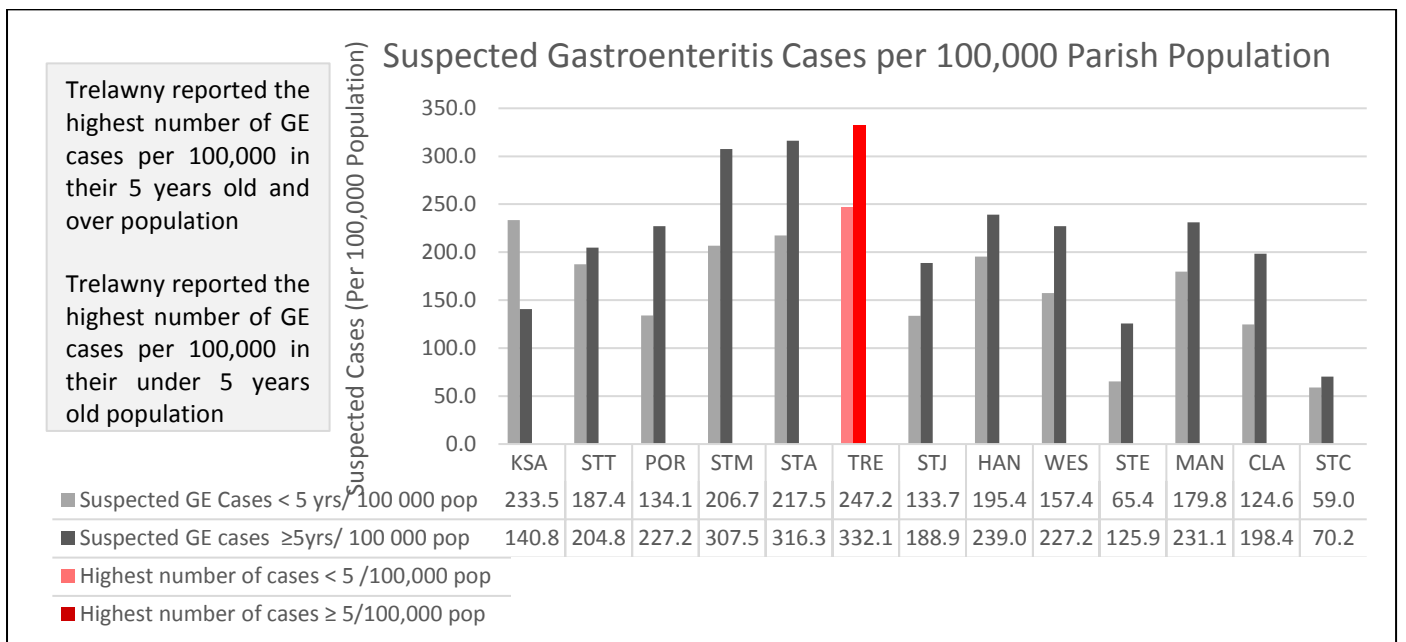
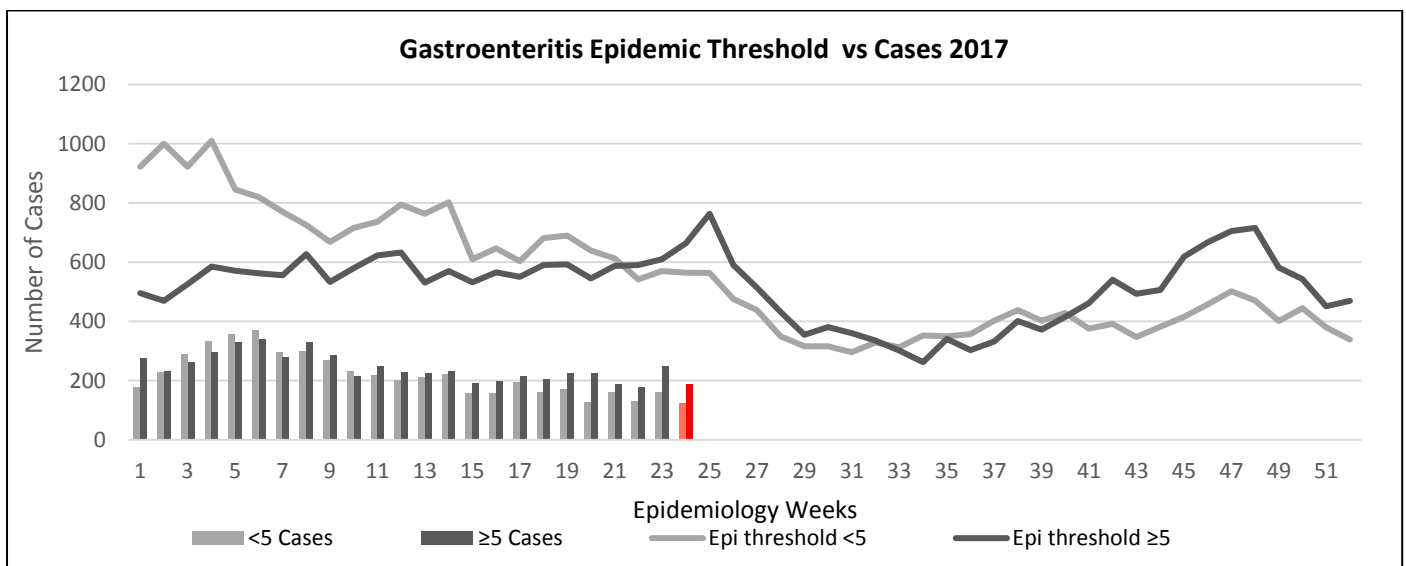
Year	EW 24			YTD		
	<5	≥5	Total	<5	≥5	Total
2017	122	188	310	5,236	5,830	11,066
2016	160	321	481	3,538	5,554	9,092

### Gastroenteritis:

In Epidemiology Week 24, 2017, the total number of reported GE cases showed a 4% decrease compared to EW 24 of the previous year. The year to date figure showed a 25% increase in cases for the period.



Figure 1: Total Gastroenteritis Cases Reported 2016-2017



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# RESEARCH PAPER

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## Estimating Cost Effectiveness of HPV Vaccination or Pap Smear Expansion or VIA Screening Introduction By Using the CERIVAC Model

*J Barnett, K Lewis-Bell*

*Ministry of Health, Jamaica*

**Objective:** To examine the potential costs, health benefits and value for money (e.g. cost per DALY saved primarily) of introducing the HPV vaccination for a cohort of girls entering high school; or expanding pap smear screening; or introduction of Visual Inspection with Acetic Acid (VIA) screening method.

**Method:** Analysis was conducted using a prospective cohort-based model (CERIVAC) which incorporated meta-analysis to project the changes in the natural history of the disease based on the intervention's scale and scope. Information required related to demographics and system costs and structure for each intervention.

**Results:** The VIA programme produced the highest cost-effectiveness result i.e. lowest cost per DALY averted, from the government and society perspective, US\$75 and US\$4,212 respectively. Societal, the least cost effective was the expanded pap smear screening option US\$6,773.00 (US\$2,094.00 – government). Cost per DALY averted for the vaccination intervention were US\$5,360 and US\$5,313 respectively and it produced the highest number of DALYs averted. Notwithstanding, the results of an incremental cost effectiveness analysis between VIA and vaccination supports the clear dominance of the former.

**Conclusion:** Using the WHO classification as our proxy income threshold, VIA (US\$75 and US\$4,212) is less than the country's GDP per capita (US\$4,471), thus it is highly cost effective and a justifiable investment for the country. Therefore on the basis of technical efficiency alone, Jamaica should select the VIA option.



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NOTIFICATIONS-  
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sites



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