

# WEEKLY EPIDEMIOLOGY BULLETIN

## NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

### Weekly Spotlight

#### Radical increase in water and sanitation investment required

Countries are not increasing spending fast enough to meet the water and sanitation targets under the Sustainable Development Goals (SDGs), says a new report published by WHO on behalf of UN-Water – the United Nations inter-agency coordination mechanism for all freshwater-related issues, including sanitation.



"Today, almost two billion people use a source of drinking-water contaminated with faeces, putting them at risk of contracting cholera, dysentery, typhoid and polio," says Dr Maria Neira, WHO Director, Department of Public Health, Environmental and Social Determinants of Health.

"Contaminated drinking-water is estimated to cause more than 500 000 diarrhoeal deaths each year and is a major factor in several neglected tropical diseases, including intestinal worms, schistosomiasis, and trachoma," added Neira.

The report stresses that countries will not meet global aspirations of universal access to safe drinking-water and sanitation unless steps are taken to use financial resources more efficiently and increase efforts to identify new sources of funding.

According to the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2017 report, countries have increased their budgets for water, sanitation and hygiene at an annual average rate of 4.9% over the last three years. Yet, 80% of countries report that water, sanitation and hygiene (WASH) financing is still insufficient to meet nationally-defined targets for WASH services.

In many developing countries, current national coverage targets are based on achieving access to basic infrastructure, which may not always provide continuously safe and reliable services. Planned investments have yet to take into account the much more ambitious SDG targets, which aim for universal access to safely managed water and sanitation services by 2030.



In order to meet the SDG global targets, the World Bank estimates investments in infrastructure need to triple to US \$114 billion per year – a figure which does not include operating and maintenance costs.

Source: [www.who.int/mediacentre/factsheets/fs102/en/](http://www.who.int/mediacentre/factsheets/fs102/en/)

### EPI WEEK 13



#### SYNDROMES

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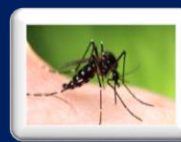
#### CLASS 1 DISEASES

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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

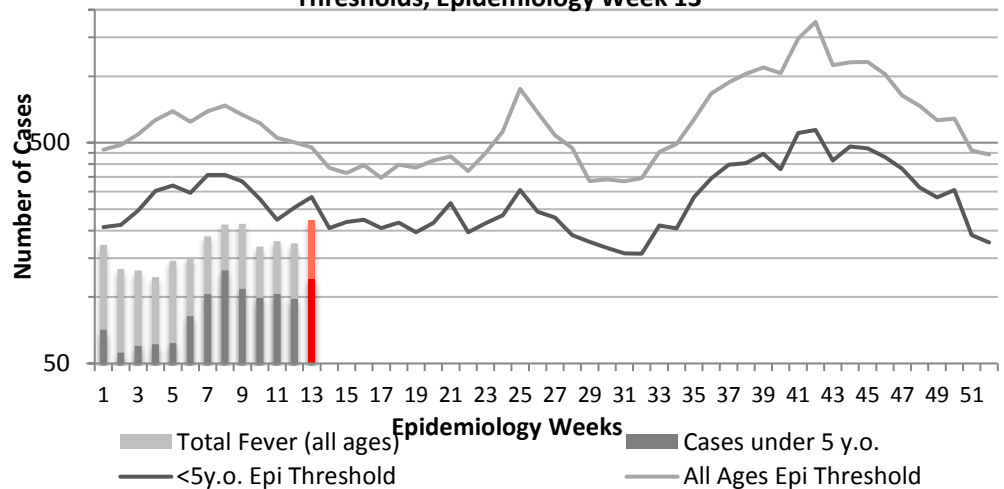
Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**KEY**

**RED** CURRENT WEEK

**Fever in under 5y.o. and Total Population 2017 vs Epidemic Thresholds, Epidemiology Week 13**

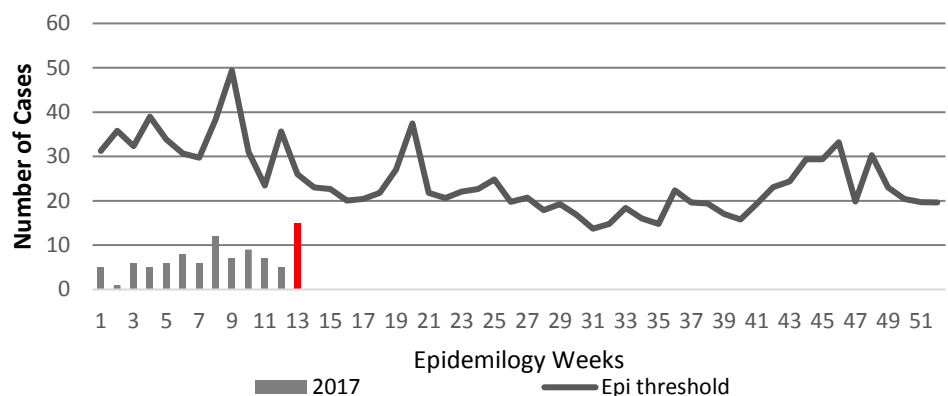


## FEVER AND NEUROLOGICAL

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 13**

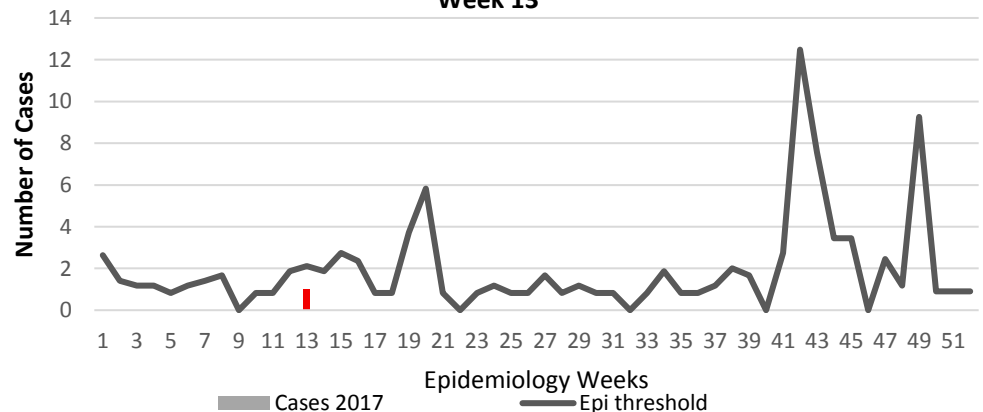


## FEVER AND HAEMORRHAGIC

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 13**



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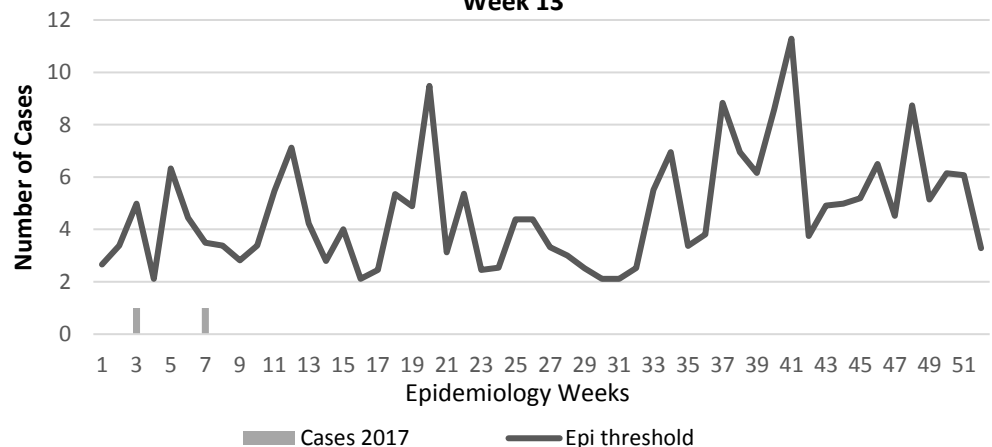
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**FEVER AND JAUNDICE**

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



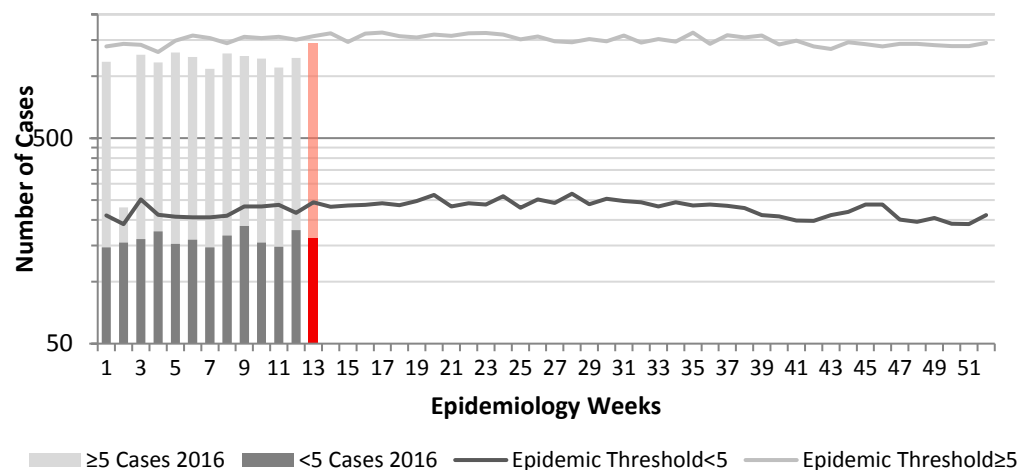
**Fever and Jaundice Weekly Threshold vs Cases 2017, Epidemiology Week 13**

**ACCIDENTS**

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



**Accidents Weekly Threshold vs Cases 2017**

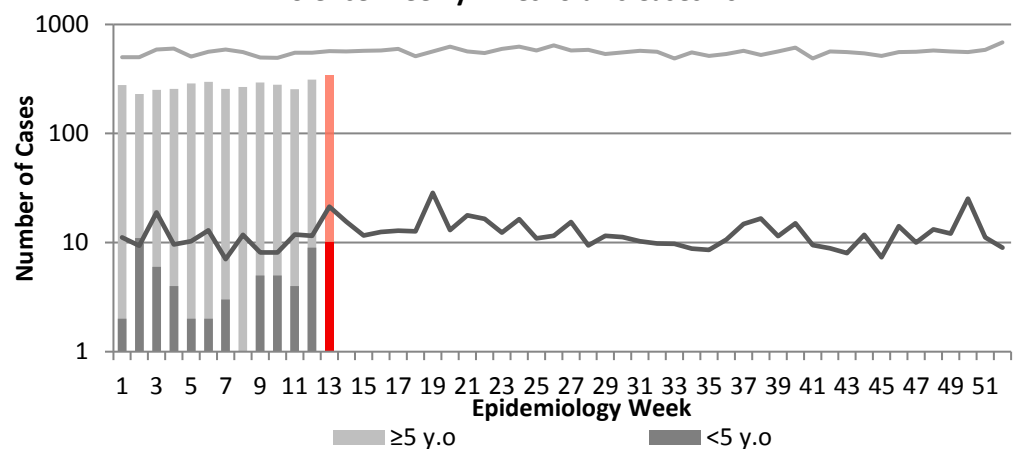
**VIOLENCE**

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 2017**



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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.
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		19	43	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Cholera		0	0	
	Dengue Hemorrhagic Fever <sup>1</sup>		0	0	
	Hansen’s Disease (Leprosy)		0	0	
	Hepatitis B		2	2	
	Hepatitis C		1	0	
	HIV/AIDS - See HIV/AIDS National Programme Report				
	Malaria (Imported)		2	1	
	Meningitis ( Clinically confirmed)		6	17	
EXOTIC/ UNUSUAL	Plague		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.  *Data not available  <sup>1</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;  <sup>2</sup> Maternal Deaths include early and late deaths.
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 <sup>2</sup>		6	5	
	Ophthalmia Neonatorum		55	139	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		1	1	
	Tetanus		0	0	
	Tuberculosis		0	8	
	Yellow Fever		0	0	
	Chikungunya		0	0	
	Zika Virus		0	8	

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.

<sup>1</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;

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# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# EW 13

March 26- April 1, 2017

Epidemiology Week 13

April 2017

	EW 13	YTD
SARI cases	17	163
<b>Total Influenza positive Samples</b>	<b>0</b>	<b>5</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>0</b>	<b>5</b>
<b>Other</b>	<b>0</b>	<b>0</b>

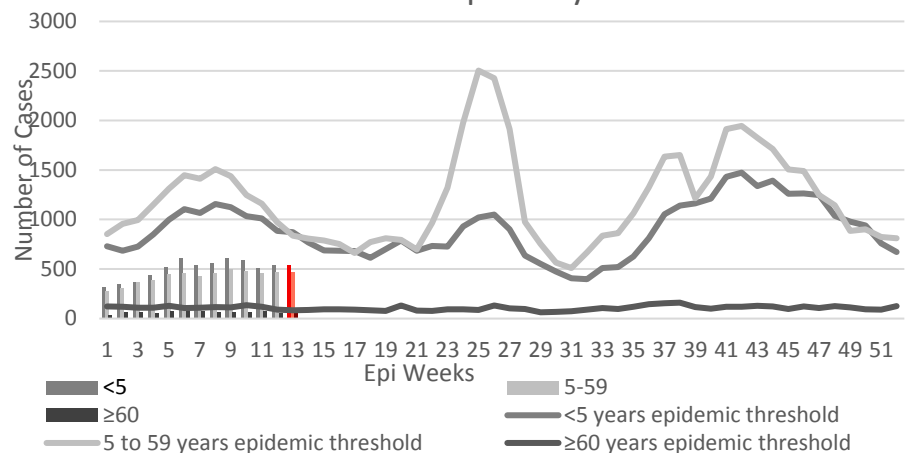
## Comments:

During EW 12, SARI activity decreased and remained below the alert threshold and the average epidemic curve.

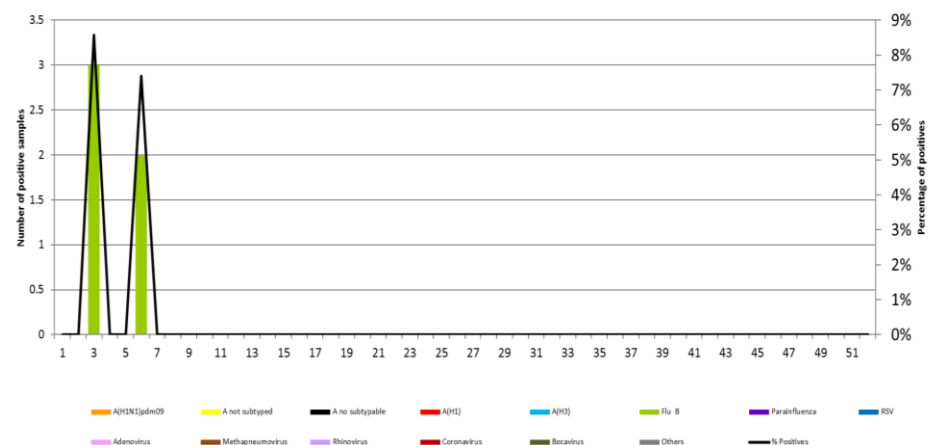
During EW 12, pneumonia case-counts decreased, and were at same levels observed in 2015 and lower than the prior season.

During EW 13, no influenza activity was reported.

## Fever and Respiratory 2017



Distribution of Influenza and other respiratory viruses among SARI cases by EW surveillance  
EW 12, 2017, NIC Jamaica



## INDICATORS

### Burden

Year to date, respiratory syndromes account for 3.3% of visits to health facilities.

### Incidence

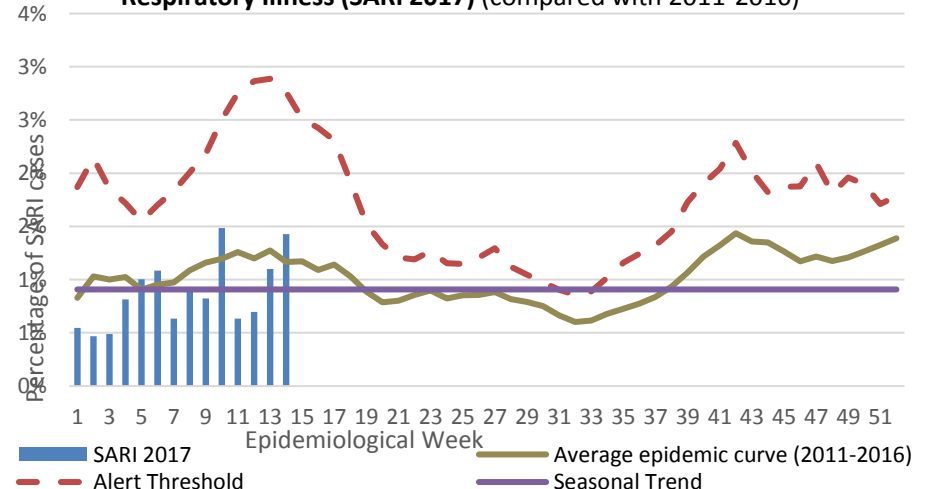
Cannot be calculated, as data sources do not collect all cases of Respiratory illness.



### Prevalence

Not applicable to acute respiratory conditions.

## Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2017) (compared with 2011-2016)



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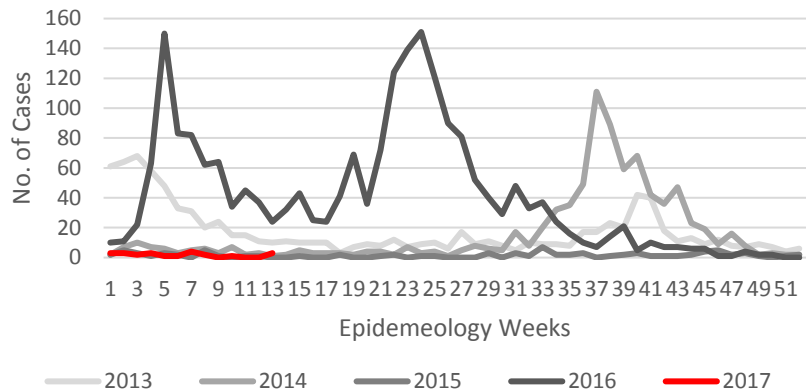
# Dengue Bulletin

March 26- April 1, 2017

Epidemiology Week 13



Dengue Cases by Epidemiology Weeks 2013-2017

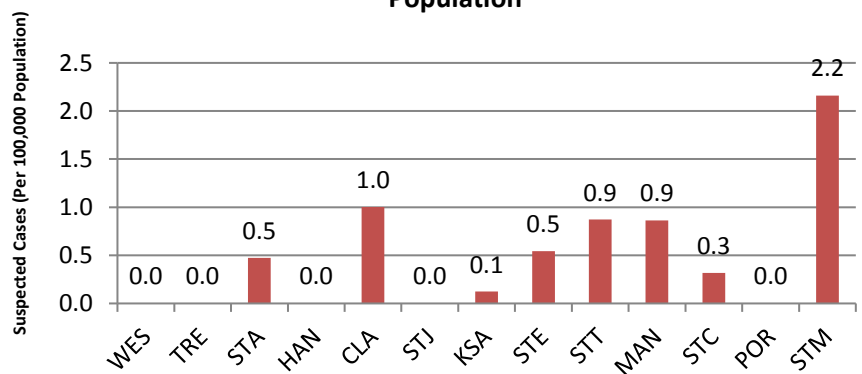


## DISTRIBUTION


### Year-to-Date Suspected Dengue Fever

	M	F	Un- know n	Total	%
<1	1	0	0	1	4.4
1-4	1	1	0	2	8.7
5-14	3	1	0	4	17.4
15-24	2	3	0	5	21.7
25-44	4	4	1	9	39.1
45-64	1	1	0	2	8.7
≥65	0	0	0	0	0
Unknown	0	0	0	0	0
<b>TOTAL</b>	<b>12</b>	<b>10</b>	<b>1</b>	<b>23</b>	<b>100</b>

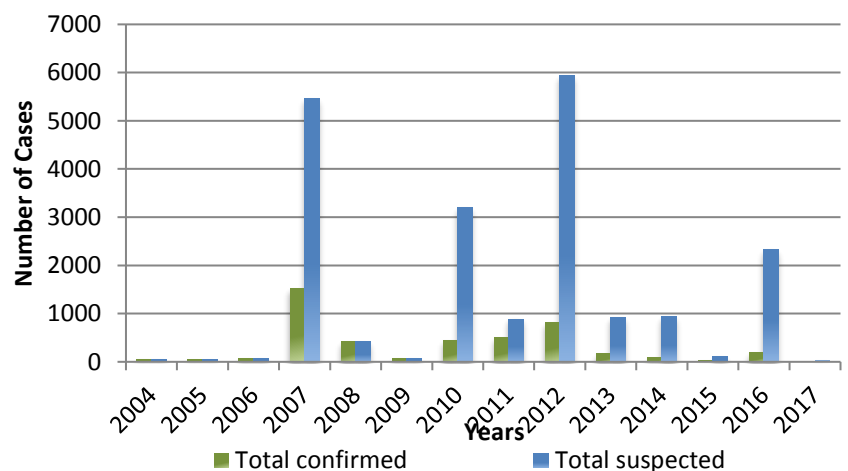
Suspected Dengue Fever Cases per 100,000 Parish Population



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

		2017		2016 YTD
		EW 13	YTD	
				
Total Suspected Dengue Cases		0	23	554
Lab Confirmed Dengue cases		0	0	69
CONFIRMED	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  
13

March 26- April 1, 2017

Epidemiology Week 13

## Weekly Breakdown of Gastroenteritis cases

Year	EW 13			YTD		
	<5	≥5	Total	<5	≥5	Total
2017	210	225	435	3,481	3,545	7,026
2016	139	202	341	2,080	2,926	5,006

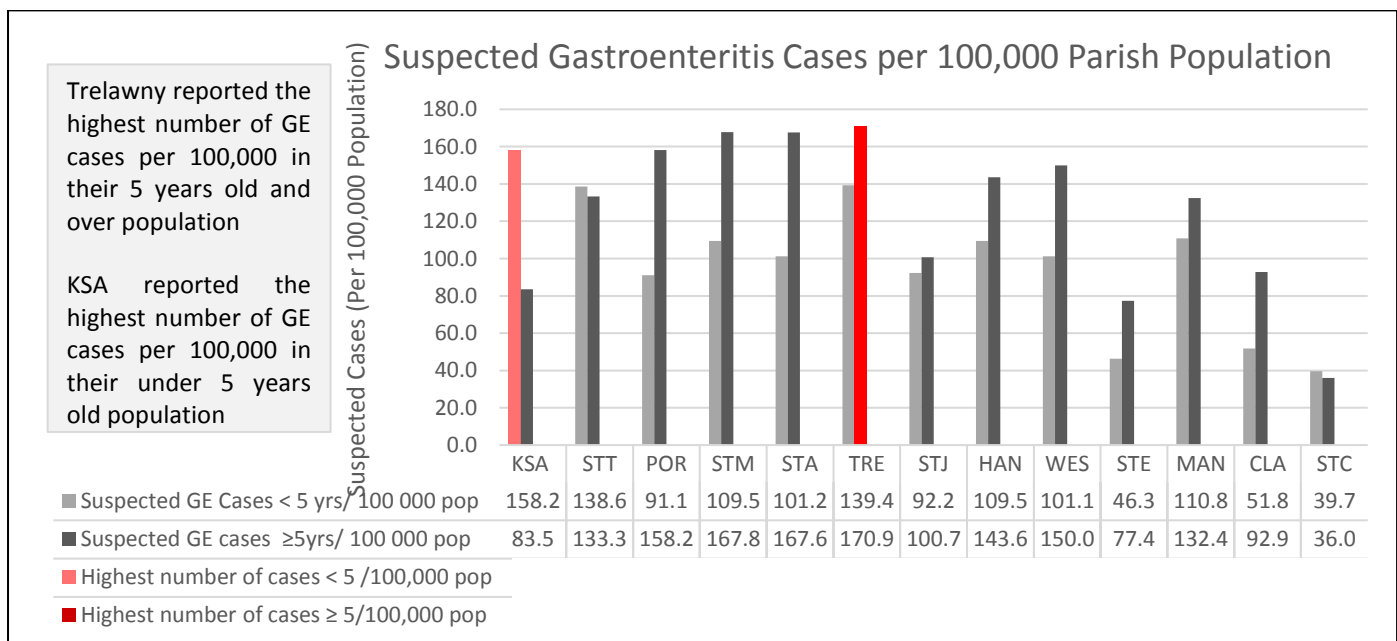
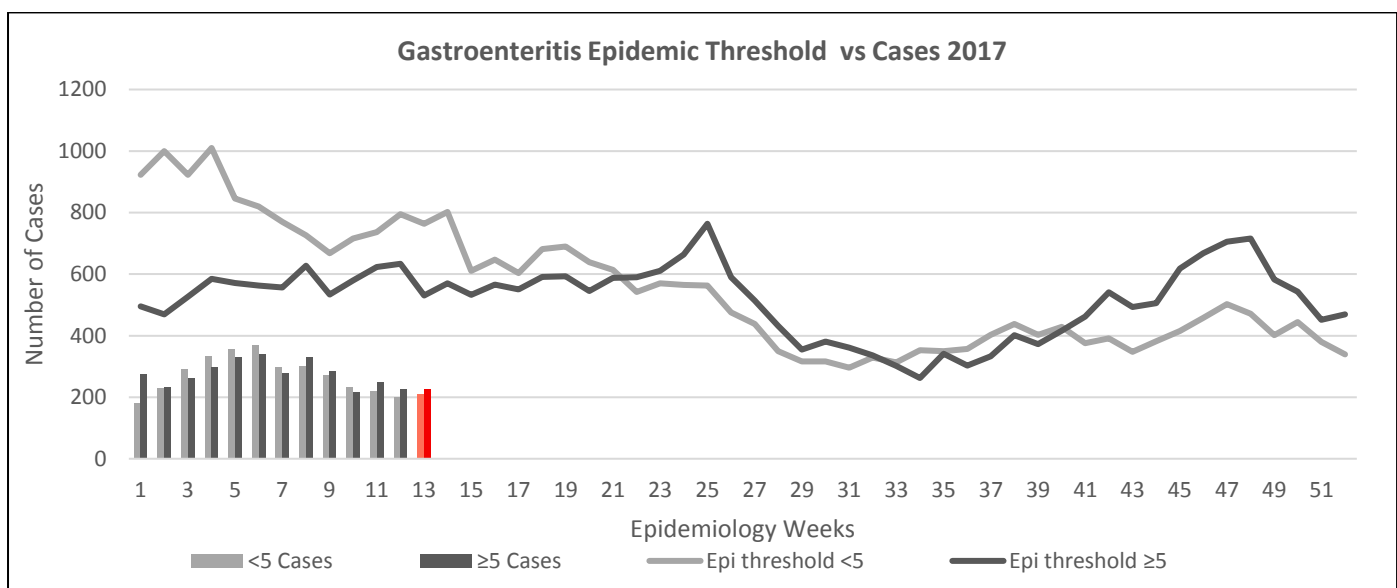
### Gastroenteritis:

In Epidemiology Week 13, 2017, the total number of reported GE cases showed an 21% increase compared to EW 13 of the previous year.

The year to date figure showed a 28% increase in cases for the period.



Figure 1: Total Gastroenteritis Cases Reported 2016-2017



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# RESEARCH PAPER

## HIV Case-Based Surveillance System Audit

*S. Whitbourne, Z. Miller*

**Objectives:** Evaluate the Public Health Surveillance System for HIV reporting, to help ensure that the data collected is accurate and useful for understanding epidemiological trends.

**Background:** Public health programmes focus on the monitoring, control and reduction in the incidence of target diseases, conditions or health events through various interventions and actions. The surveillance system is the primary mechanism through which specific disease information is collected and needs to be periodically assessed.

**Methodology:** In 2016, an audit was conducted of the HIV Case-Based Surveillance System in Jamaica. Laboratory records were reviewed from seven major health care facilities representing all four Regional Health Authorities. Cases with a positive HIV test in 2014 were noted and comparisons of positive cases were made with the cases that had been reported to the National Surveillance Unit. Qualitative data was also collected from key personnel in the form of questionnaires related to the processes involved in diagnosis, detection, investigation and reporting of HIV positive cases, but this paper will focus on the quantitative findings.

**Findings:** Preliminary data analysis reveals a high level of underreporting of HIV cases to the national level.

**Conclusions:** Audits and other forms of assessment need to be conducted on surveillance systems to ensure that the data supporting a public health programme is reliable and accurate, for effective delivery of services to target populations.



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