

Week ending September 10, 2016

Epidemiology Week 36

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA



World Heart Day was founded in 2000 to inform people around the globe that heart disease and stroke are the world's leading causes of death, claiming 17.3 million lives each year.

World Heart Day is an annual event which takes place on 29 September every year. Each year's celebrations have a different theme, reflecting key issues and topics relating to heart health. This year our theme is creating **heart-healthy environments**. Together with



World Heart Federation members, World Heart Day spreads the news that at least 80% of premature deaths from cardiovascular disease (CVD) could be avoided if four main risk factors – tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol – are controlled.

This year, World Heart Day's theme is creating **heart-healthy environments**. The places in which we live, work and play should not increase our risk of cardiovascular disease (CVD). But individuals frequently cannot make heart-healthy choices due to environmental factors, such as the availability of healthy food or smoke-free zones.

Source: <http://www.world-heart-federation.org/what-we-do/world-heart-day/about-world-heart-day/>

EPI WEEK 36



SYNDROMES

PAGE 2



CLASS 1 DISEASES

PAGE 4



INFLUENZA

PAGE 5



DENGUE FEVER

PAGE 6



GASTROENTERITIS

PAGE 7



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

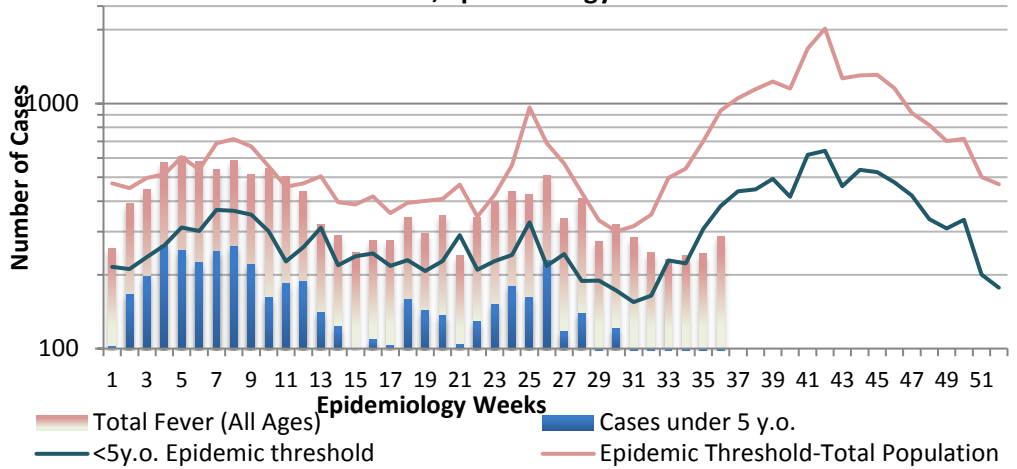
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 36

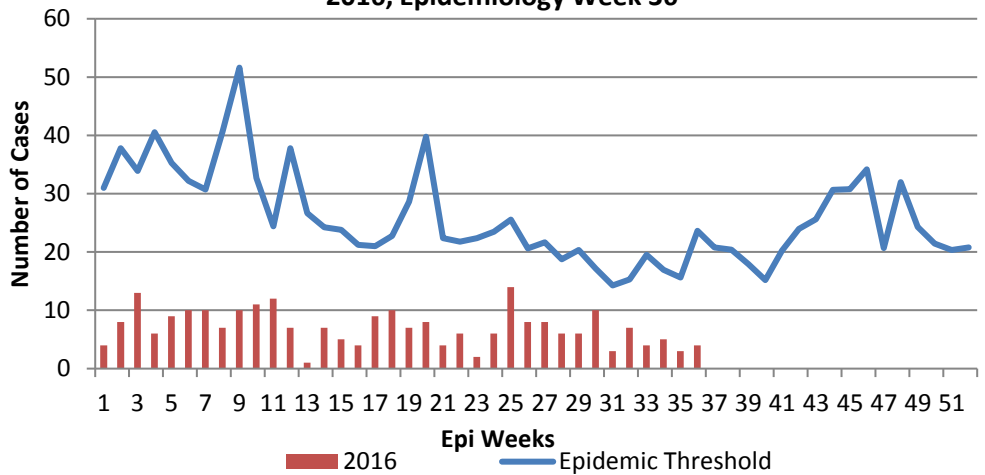


FEVER AND NEUROLOGICAL

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).



Fever and Neurological Symptoms Weekly Threshold vs Cases 2016, Epidemiology Week 36

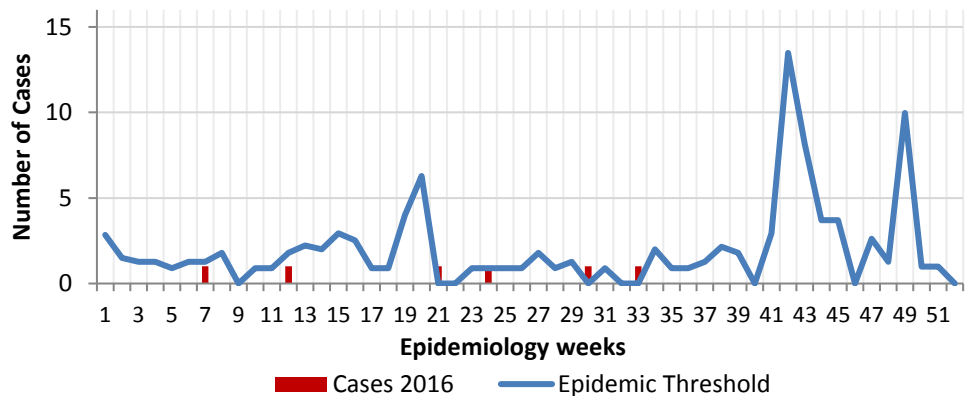


FEVER AND HAEMORRHAGIC

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.



Fever and Haem Weekly Threshold vs Cases 2016, Epidemiology Week 36



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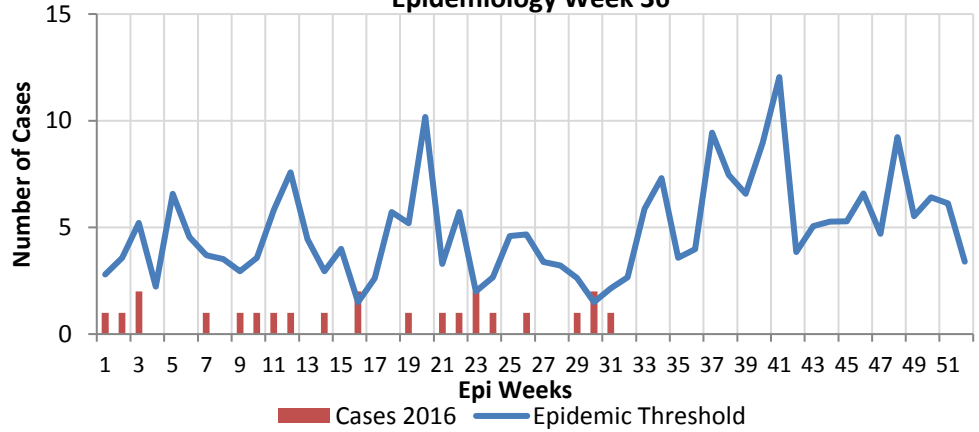
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FEVER AND JAUNDICE

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



Fever and Jaundice Weekly Threshold vs Cases 2016, Epidemiology Week 36

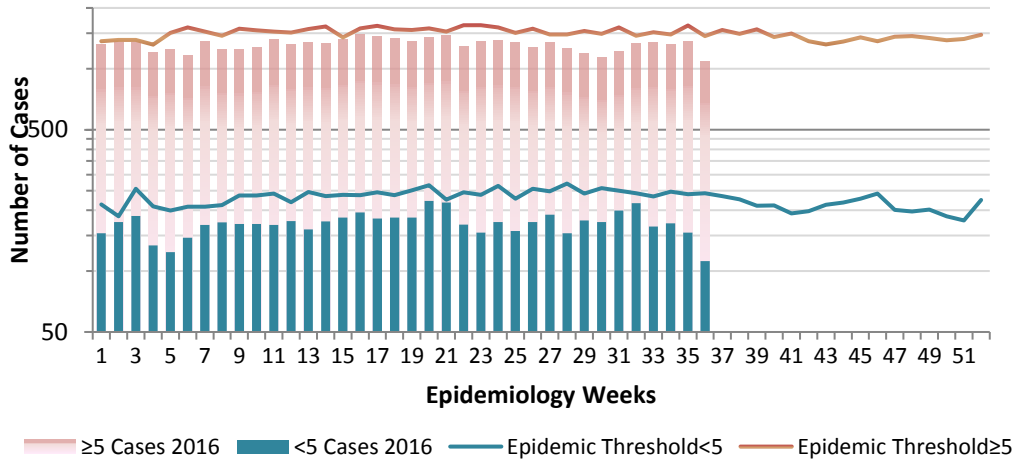


ACCIDENTS

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



Accidents Weekly Threshold vs Cases 2016



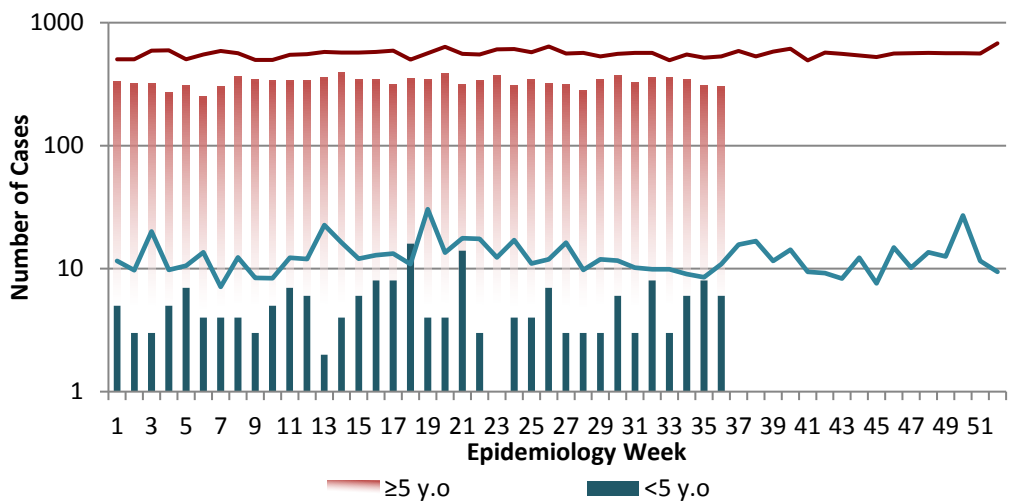
VIOLENCE

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

	CLASS 1 EVENTS	CONFIRMED YTD			
		CURRENT YEAR	PREVIOUS YEAR		
NATIONAL/INTERNATIONAL INTEREST	Accidental Poisoning	46	125	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.	
	Cholera	0	0		
	Dengue Hemorrhagic Fever ¹	2	0		
	Hansen's Disease (Leprosy)	1	0		
	Hepatitis B	23	29		
	Hepatitis C	4	4		
	HIV/AIDS - See HIV/AIDS National Programme Report				
	Malaria (Imported)	1	0		
	Meningitis	27	65		
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	0		
	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	17		2
		Rubella	0		0
	Maternal Deaths ²	23	24		
	Ophthalmia Neonatorum	298	205		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	1	9		
	Tetanus	0	1		
	Tuberculosis	0	0		
	Yellow Fever	0	0		
	Chikungunya	0	1		
	Zika Virus	91	0		



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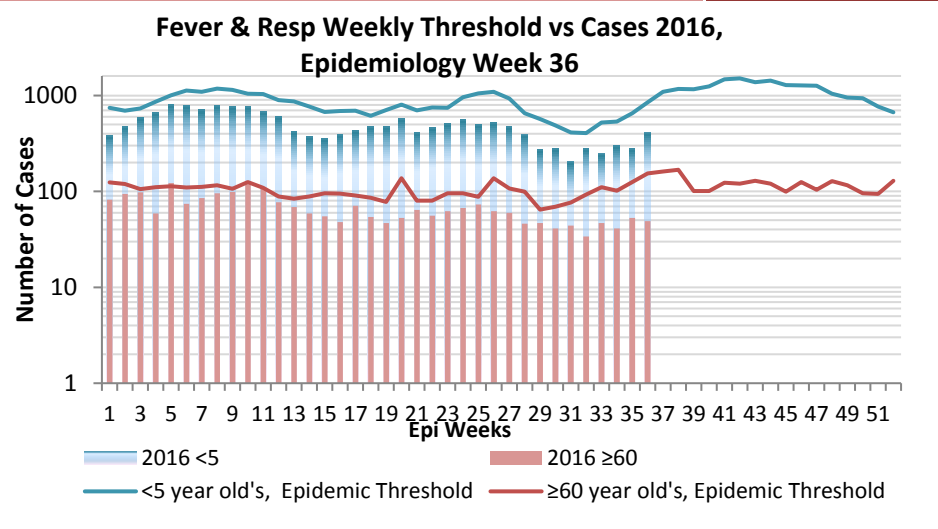
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NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

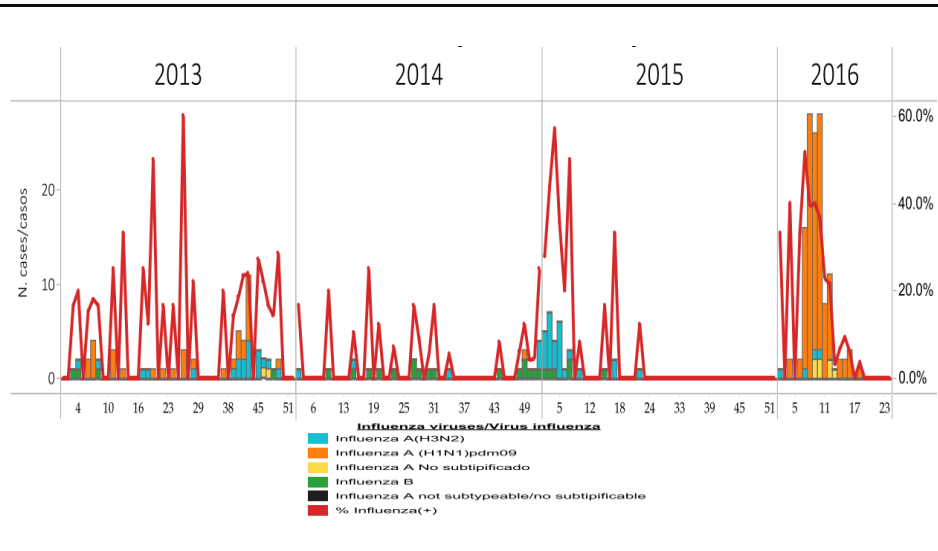
EW 36

Sept. 4 to Sept. 10, 2016 Epidemiology Week 36

September 2016		
	EW 36	YTD
SARI cases	32	820
Total Influenza positive Samples	0	114
Influenza A	0	113
H3N2	0	1
H1N1pdm09	0	80
Not subtyped	0	32
Influenza B	0	0
Other	0	1



Comments:
 The percent positivity among all samples tested from EW 1 to EW 8, 2016 is 40.3% (N= 77) Influenza A(H1N1)pdm09 continued to circulate in EWs 1 to 8 as the predominant virus at 97%. No Influenza B viruses have been detected since 2016. In addition, there has been no detection of the influenza A/H3v or A/H1v variant viruses, or avian H5 and H7 viruses among human samples tested.

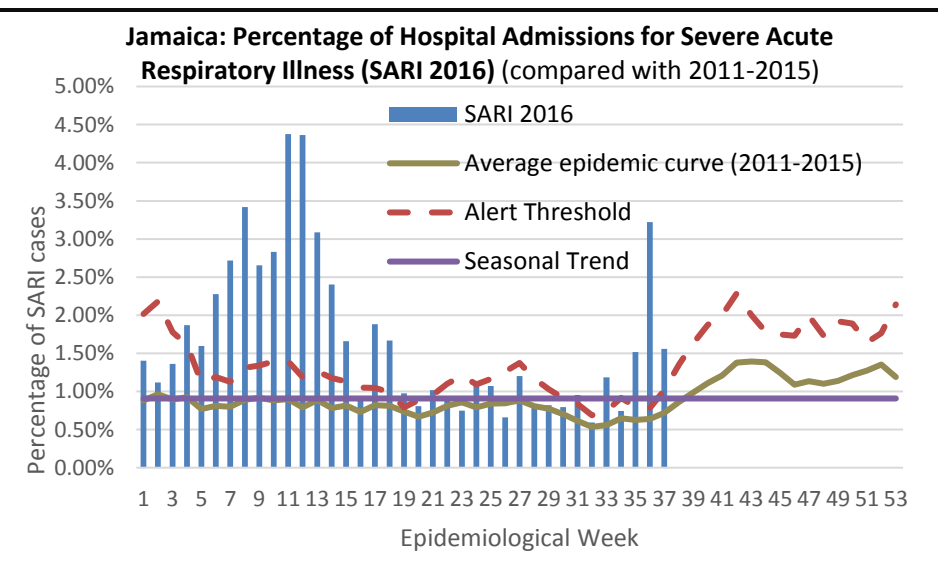


INDICATORS

Burden
 Year to date, respiratory syndromes account for 4.2% 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.



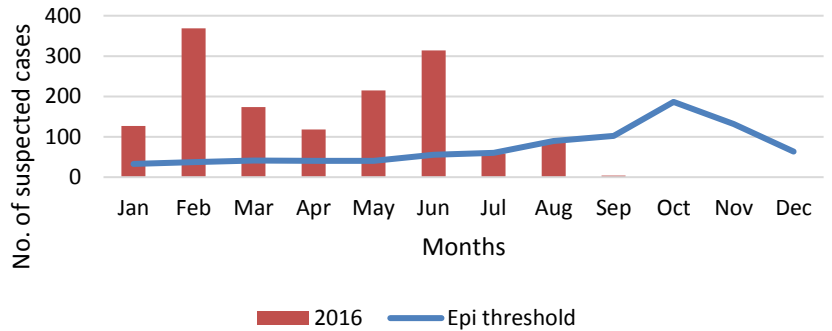
***Additional data needed to calculate Epidemic Threshold**

Dengue Bulletin

Sept. 4 to Sept. 10, 2016

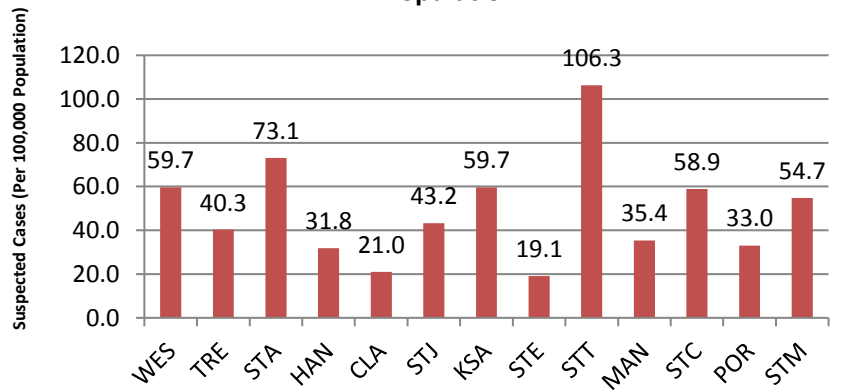
Epidemiology Week 36

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	271	136	14
TOTAL	525	1014	286	1825	100

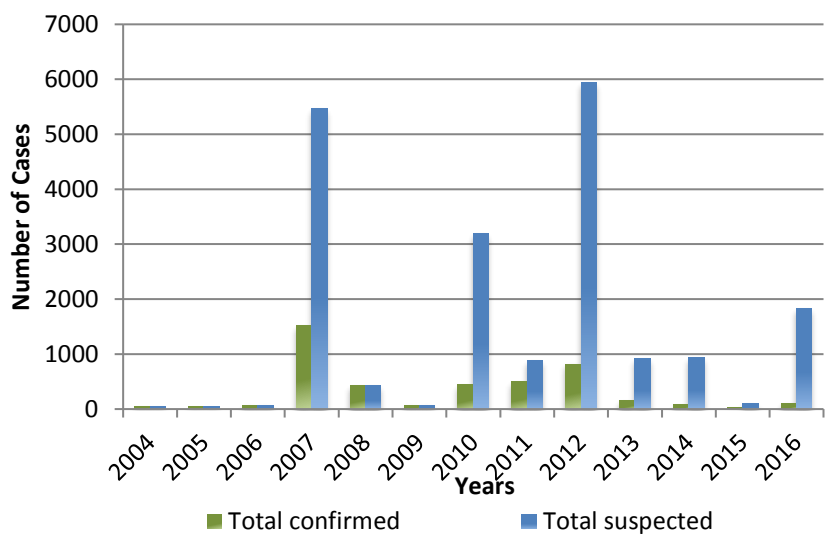
Suspected Dengue Fever Cases per 100,000 Parish Population



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

		2016		2015 YTD
		EW 36	YTD	
				
Total Suspected Dengue Cases		1	1825	30
Lab Confirmed Dengue cases		0	110	2
CONFIRMED	DHF/DSS	0	2	0
	Dengue Related Deaths	0	0	0

Dengue Cases by Year: 2004-2016, Jamaica



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Gastroenteritis Bulletin

EW
36

Sept. 4 to Sept. 10, 2016

Epidemiology Week 36

Weekly Breakdown of Gastroenteritis cases

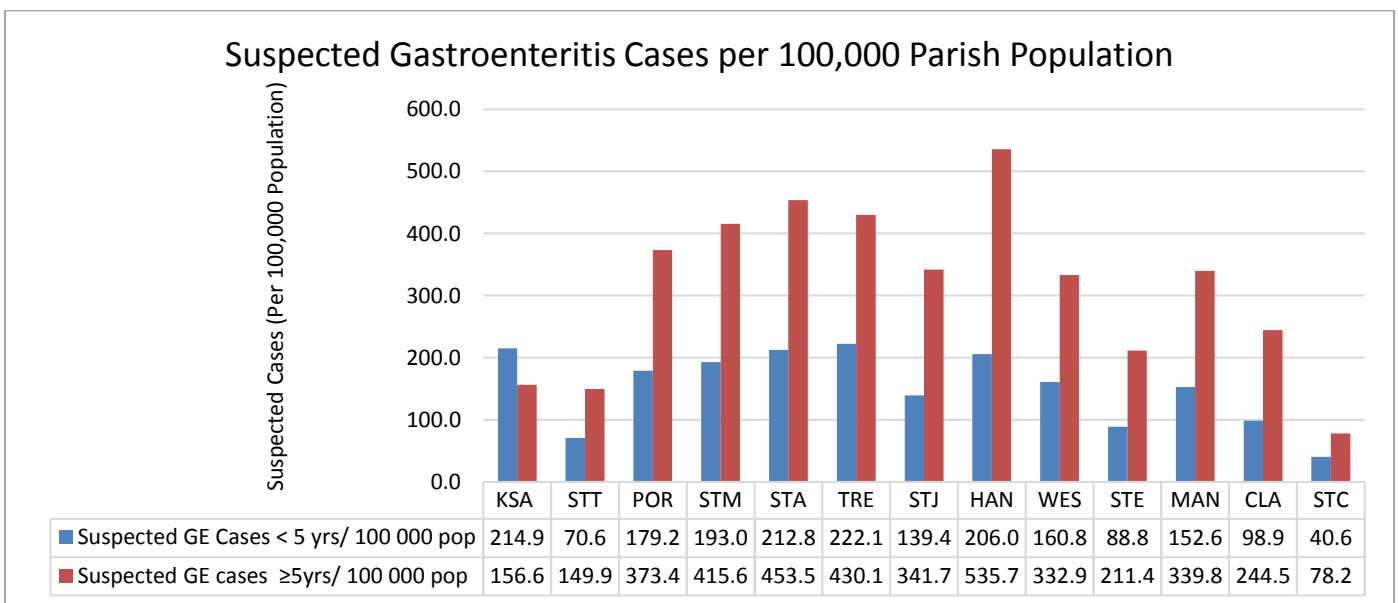
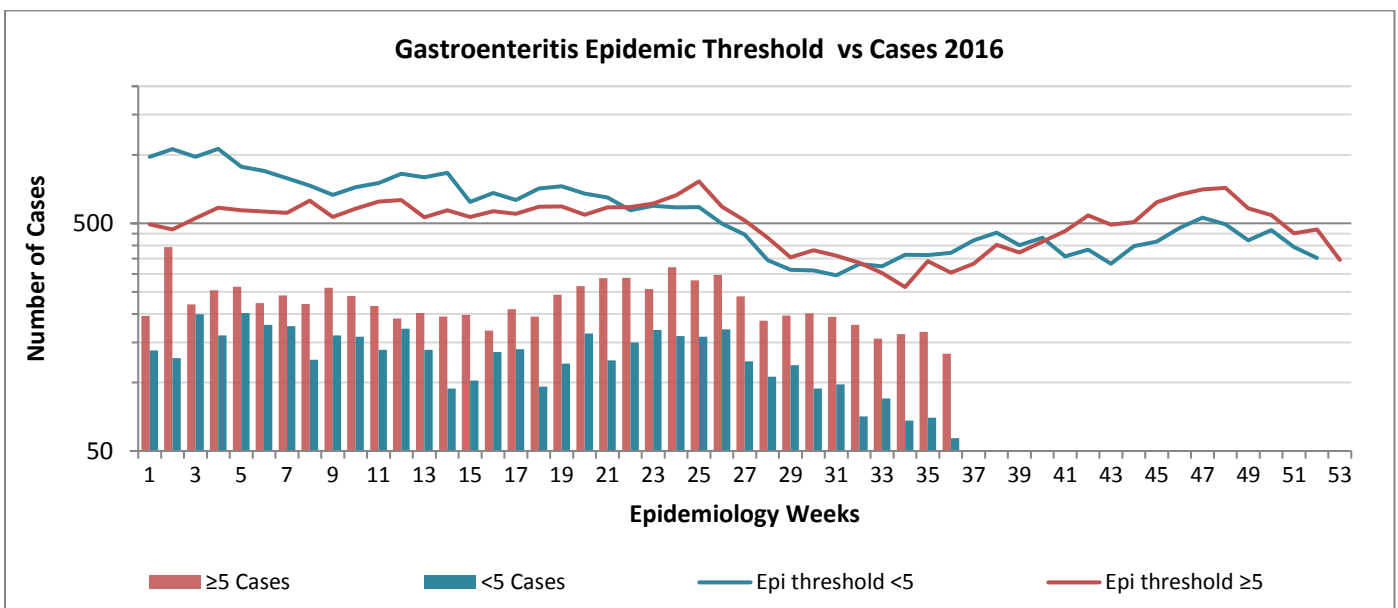
Gastroenteritis:

In Epidemiology Week 36, 2016, the total number of reported GE cases showed a 43% decrease compared to EW 36 of the previous year. The year to date figure showed a 23% decrease in cases for the period.



Year	EW 36			YTD		
	<5	≥5	Total	<5	≥5	Total
2016	57	134	191	4,760	7,949	12,709
2015	160	178	338	8,074	8,441	16,515

Figure 1: Total Gastroenteritis Cases Reported 2015-2016



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RESEARCH PAPER

Estimating Cost Effectiveness of HPV Vaccination or Pap-Smear Expansion or VIA Screening Introduction by Using the CERVIVAC 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 (CERVIVAC) 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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