

Week ending August 27, 2016

Epidemiology Week 34

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight

Caribbean Wellness Day Sept. 10, 2016

Ministry of Health

Caribbean WELLNESS DAY 2016

"Love Your Body, Treat Your Body Right"

SEPT 10TH 2016
11AM-5PM

HALF WAY TREE SQUARE

MCS
JENNY JENNY & ZJ SPARKS
PLUS
SPECIAL GUEST ARTISTES

ADMISSION FREE

ACTIVITIES
DANCE AEROBICS
DANDY SHANDY & MUCH MORE!

FREE HEALTH CHECKS
FOOD SAMPLING

KIDDIES ZONE
BOUNCE-A-BOUT
ROCK CLIMBING
MECHANICAL BULL

#1 CHEF
HON. DR. CHRISTOPHER TUTION
COOK OFF
WITH THE HEALTH MINISTER

EPI WEEK 34



SYNDROMES

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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

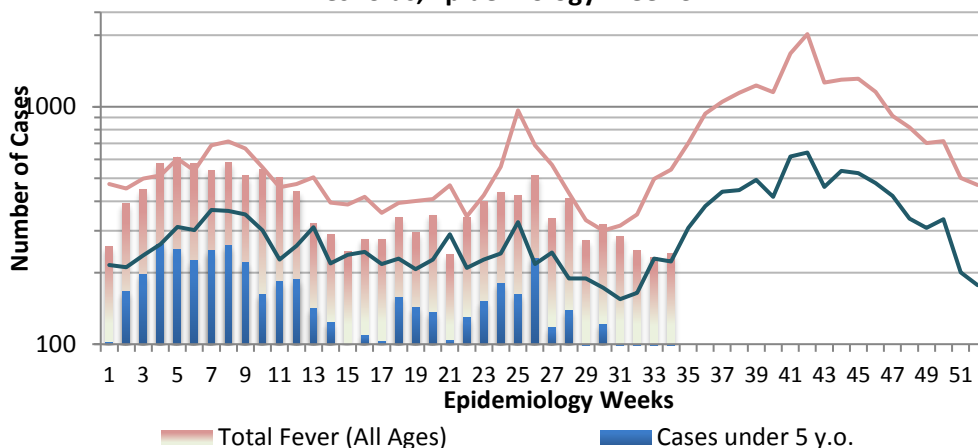
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 34

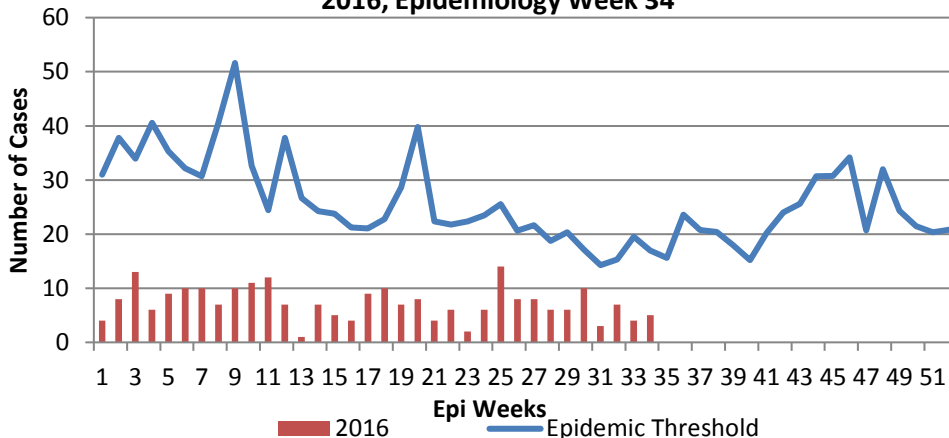


FEVER AND NEUROLOGICAL

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 34

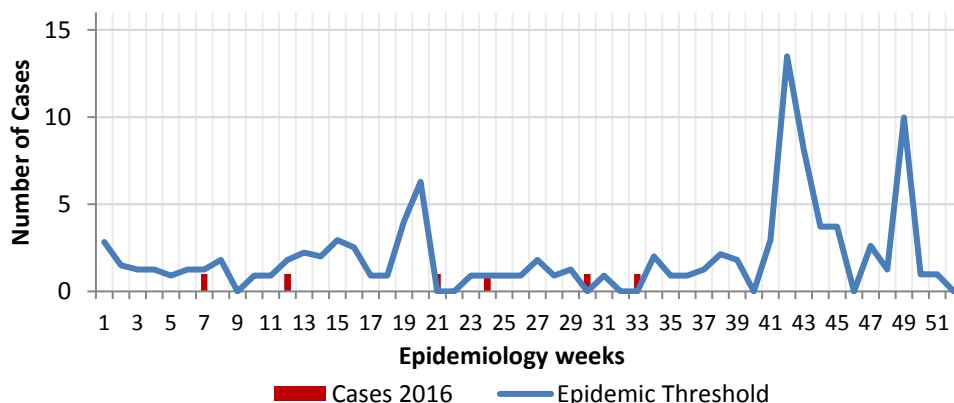


FEVER AND HAEMORRHAGIC

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 34



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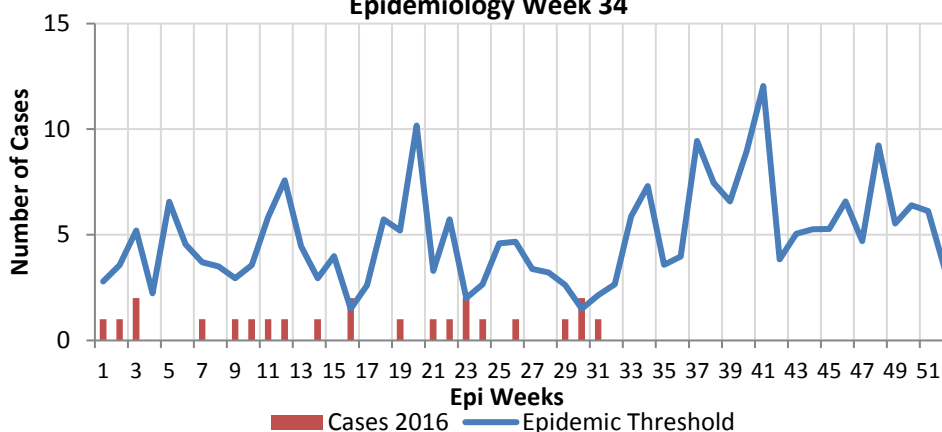
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FEVER AND JAUNDICE

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



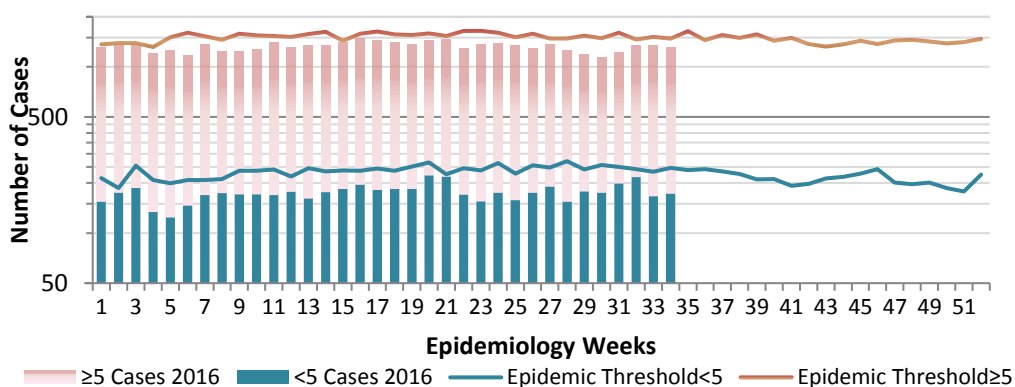
Fever and Jaundice Weekly Threshold vs Cases 2016, Epidemiology Week 34

**ACCIDENTS**

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



Accidents Weekly Threshold vs Cases 2016

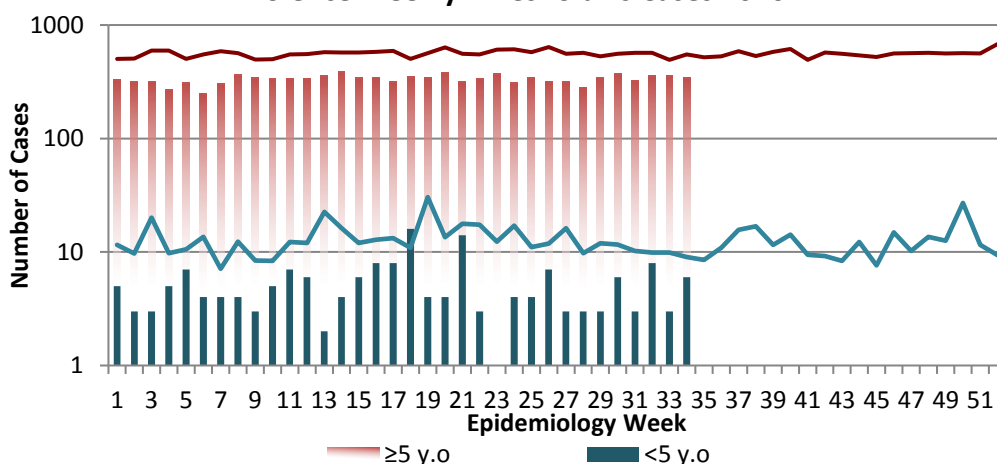
**VIOLENCE**

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		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	46	120	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	26	63	
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 ¹ Dengue Hemorrhagic Fever data include Dengue related deaths; ² Maternal Deaths include early and late deaths.
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis	0	0	
	Neonatal Tetanus	0	0	
	Typhoid Fever	1	0	
	Meningitis H/Flu	0	0	
SPECIAL PROGRAMMES	AFP/Polio	0	0	
	Congenital Rubella Syndrome		0	
	Congenital Syphilis		0	
	Fever and Rash	Measles	17	
		Rubella	0	
	Maternal Deaths ²		24	
	Ophthalmia Neonatorum		205	
	Pertussis-like syndrome		0	
	Rheumatic Fever		9	
	Tetanus		1	
	Tuberculosis		0	
	Yellow Fever		0	
	Chikungunya	0	1	
	Zika Virus	92	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.

1 Dengue Hemorrhagic Fever data include Dengue related deaths;

2 Maternal Deaths include early and late deaths.



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NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 34

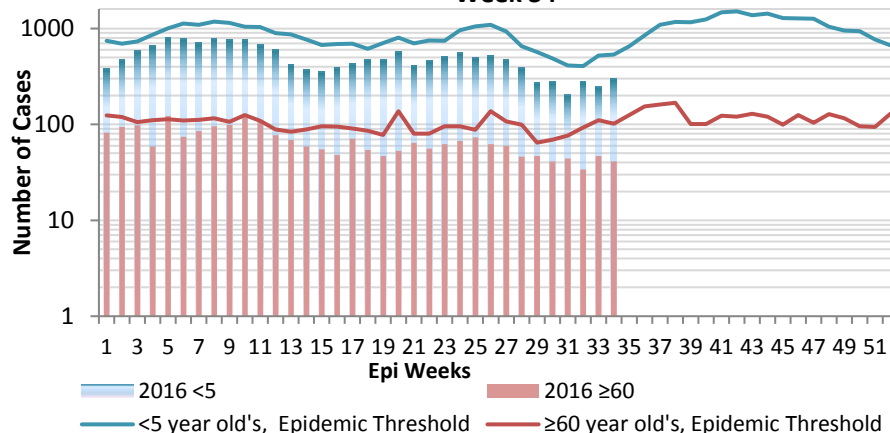
August 21 – August 27, 2016

Epidemiology Week 34

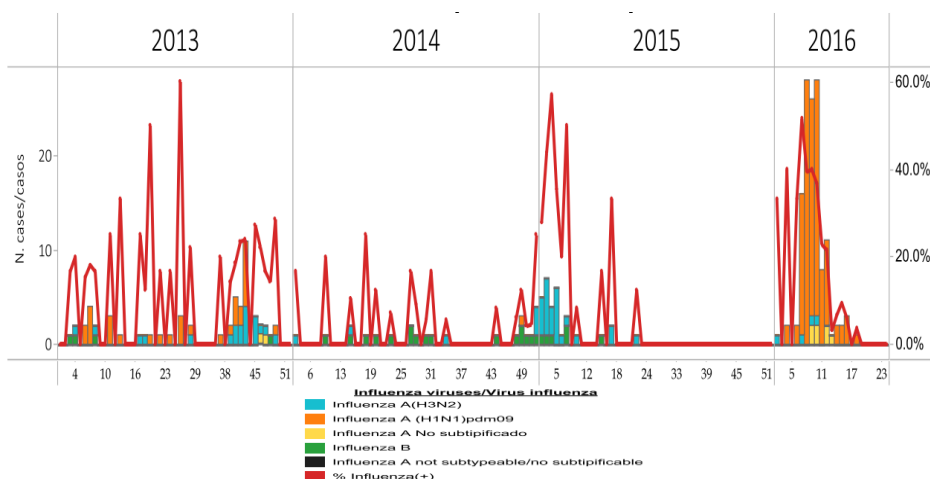
June 2016

	EW 34	YTD
SARI cases	7	770
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

Fever & Resp Weekly Threshold vs Cases 2016, Epidemiology Week 34

**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.

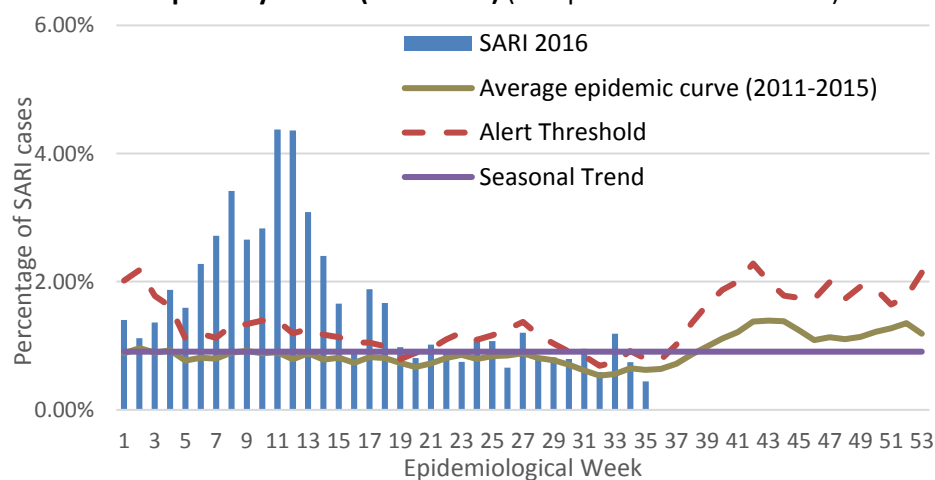
Incidence

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

**Prevalence**

Not applicable to acute respiratory conditions.

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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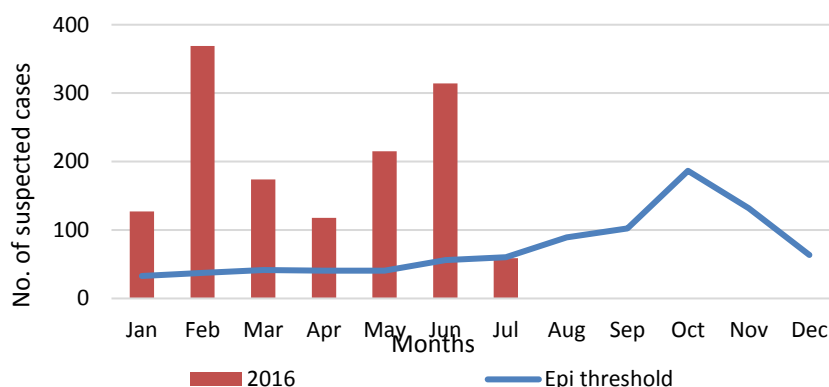
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Dengue Bulletin

August 21 – August 27, 2016

Epidemiology Week 34

2016 Cases vs. Epidemic Threshold

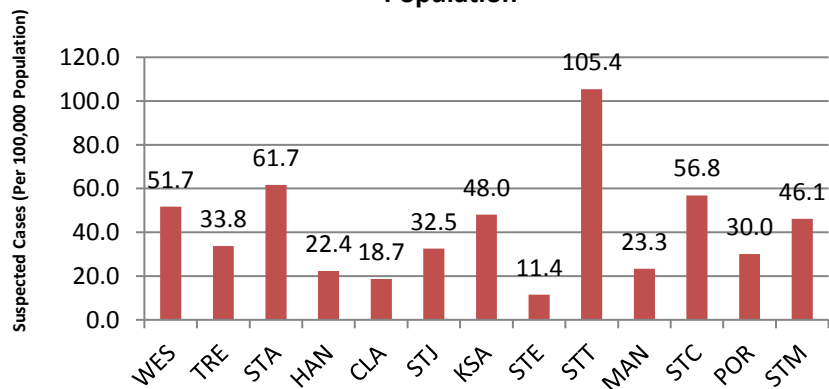


DISTRIBUTION


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	16	136	14
TOTAL	525	1014	31	1570	100

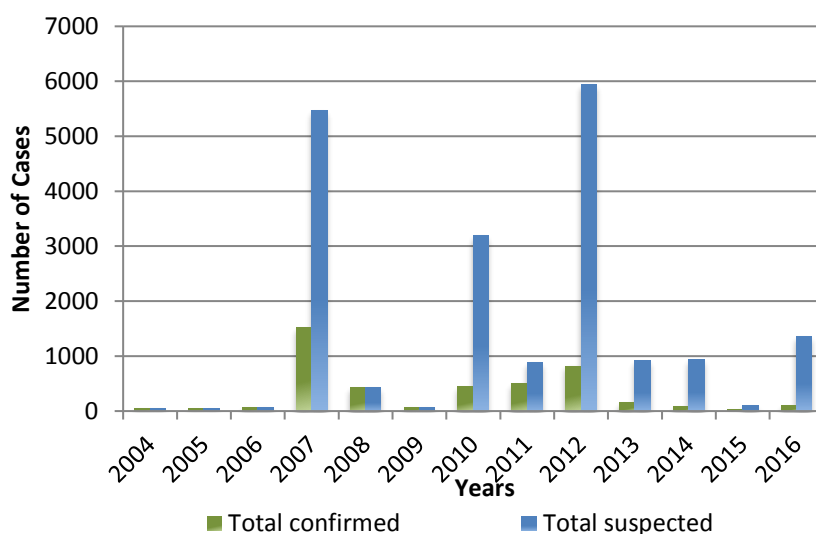
Suspected Dengue Fever Cases per 100,000 Parish Population



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

		2016		2015 YTD
		EW 34	YTD	
				
Total Suspected Dengue Cases		8	1570	30
Lab Confirmed Dengue cases		0	102	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
34

August 21 – August 27, 2016

Epidemiology Week 33

Weekly Breakdown of Gastroenteritis cases

Year	EW 33			YTD		
	<5	≥5	Total	<5	≥5	Total
2016	68	168	231	4,633	7,648	12,281
2015	119	182	301	7,797	8,090	15,887

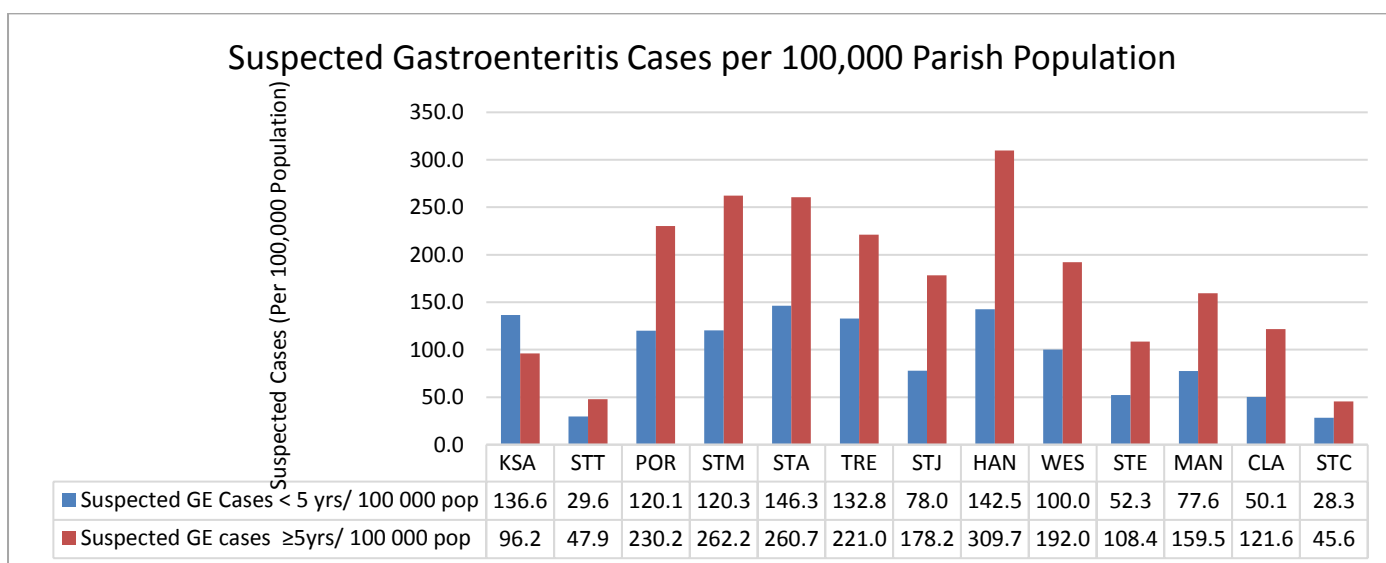
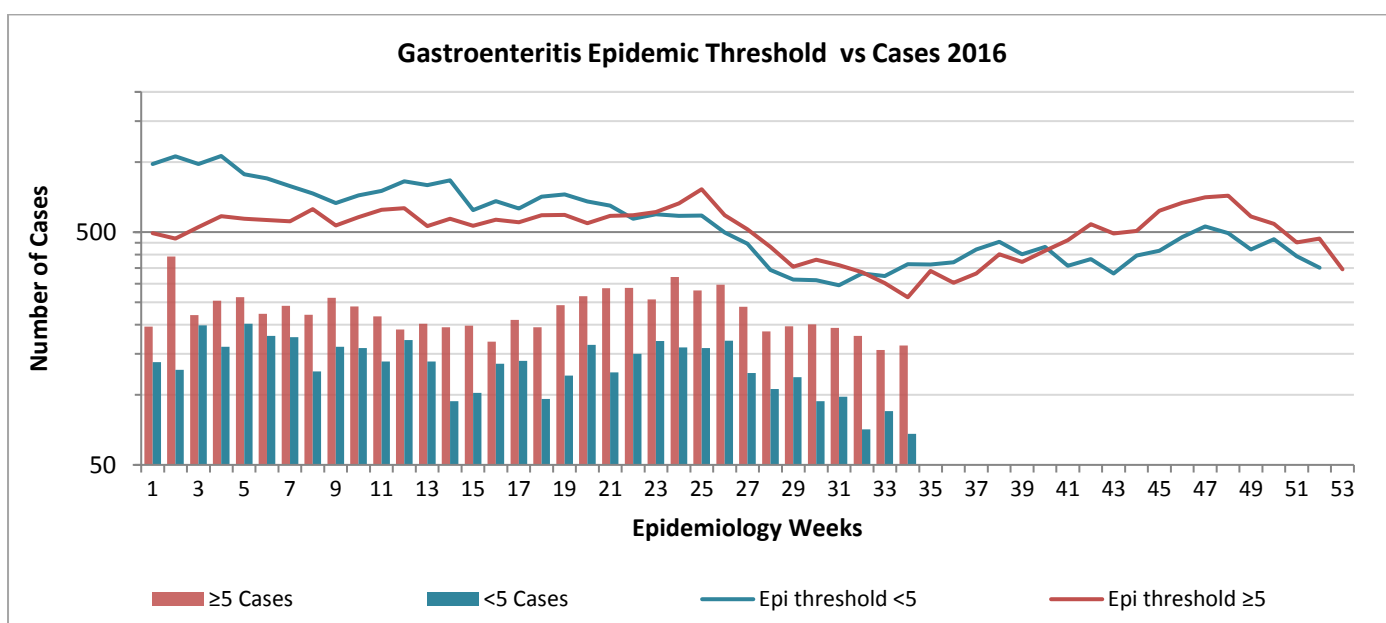
Gastroenteritis:

In Epidemiology Week 34, 2016, the total number of reported GE cases showed a 7.2% decrease compared to EW 34 of the previous year.

The year to date figure showed a 6.9% decrease in cases for the period.



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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