

Week ending August 27, 2016

Epidemiology Week 34

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight **International Day of Peace** **September 21, 2016**

The Sustainable Development Goals are integral to achieving peace in our time, as development and peace are interdependent and mutually reinforcing. The 17 Sustainable Development Goals are our shared vision of humanity and a social contract between the world's leaders and the people, they are a to-do list for people and planet, and a blueprint for success.



Every single one of the 17 Sustainable Development Goals is a building block in the global architecture of peace. It is critical that we mobilize means of implementation, including financial resources, technology development and transfer, and capacity-building, as well as the role of partnerships

Sustainability addresses the fundamental needs of the present without compromising the ability of future generations to meet their own needs. Modern challenges of poverty, hunger, diminishing natural resources, water scarcity among others, pose challenges for peace and create fertile grounds for conflict.



Sustainable development contributes decisively to dissipation and elimination of these causes of conflict and provides the foundation for a lasting peace.

Source: <http://www.un.org/en/events/peaceday/>

EPI WEEK 35



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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

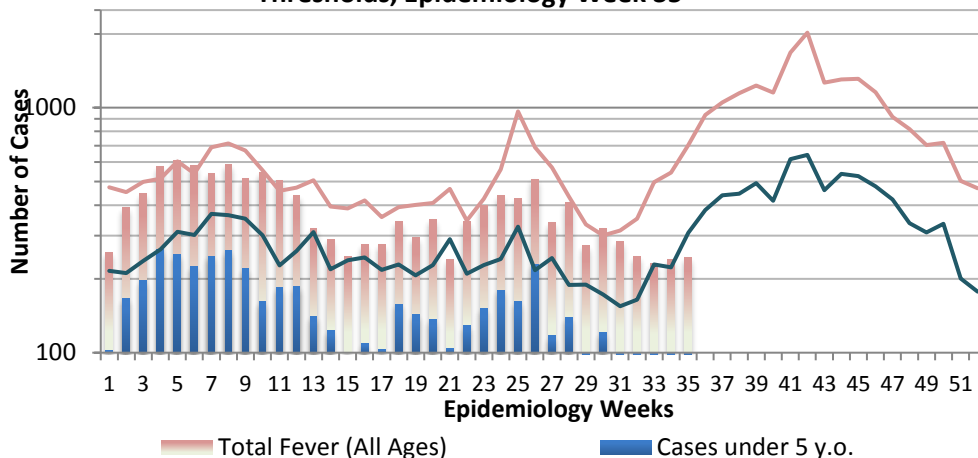
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 35

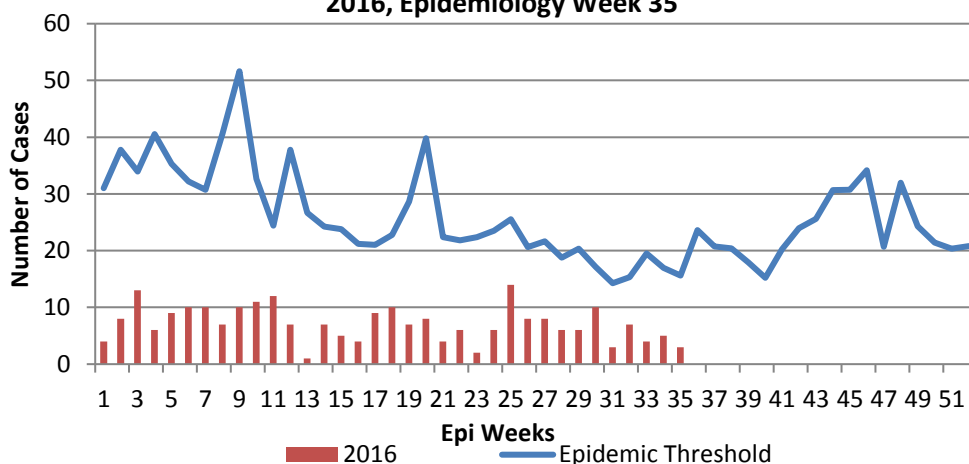


FEVER AND NEUROLOGICAL

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 35

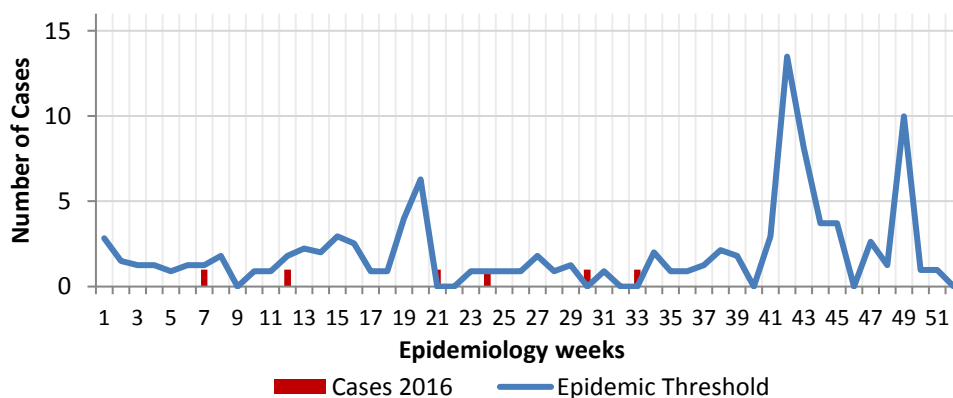


FEVER AND HAEMORRHAGIC

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 35



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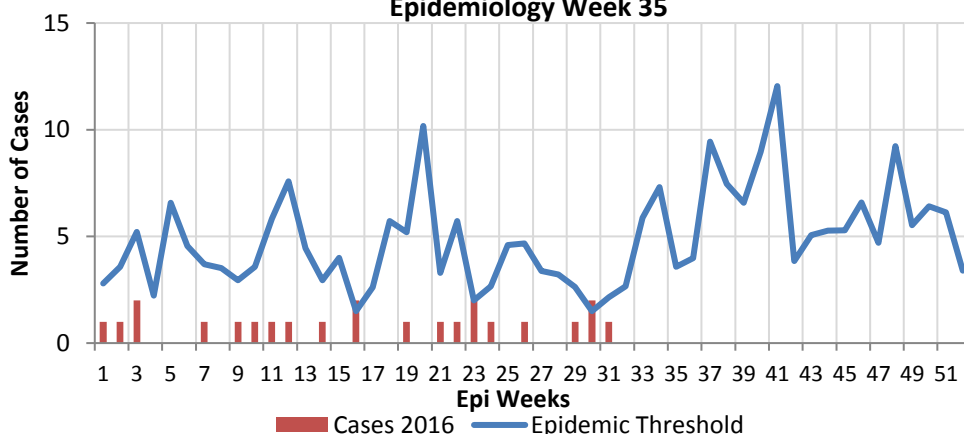
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FEVER AND JAUNDICE

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



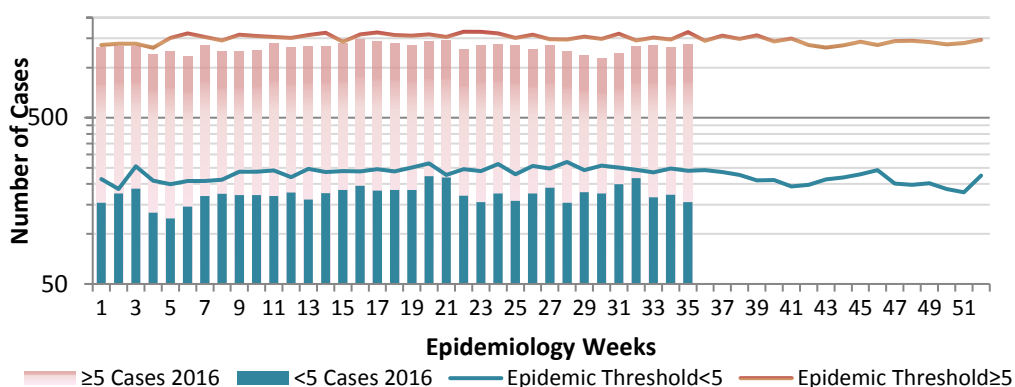
**Fever and Jaundice Weekly Threshold vs Cases 2016,
Epidemiology Week 35**

**ACCIDENTS**

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



Accidents Weekly Threshold vs Cases 2016

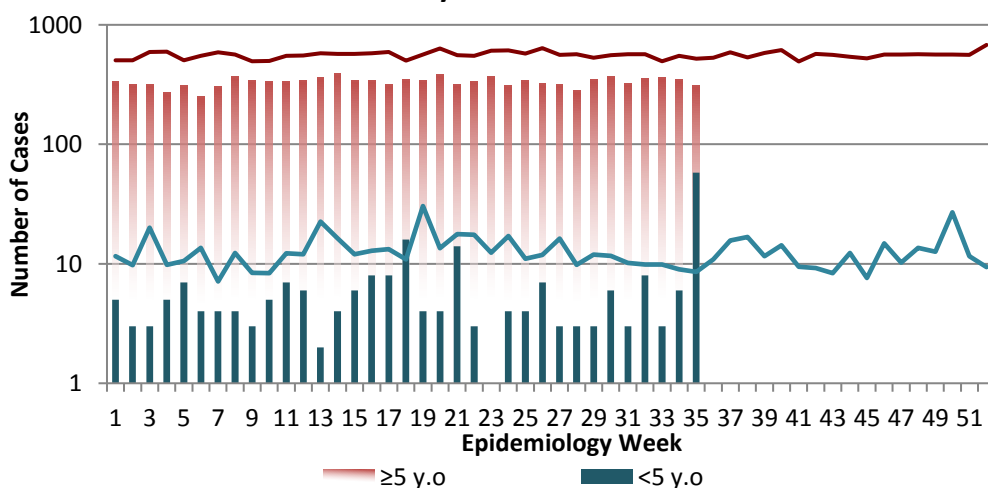
**VIOLENCE**

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	123	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	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	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		

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

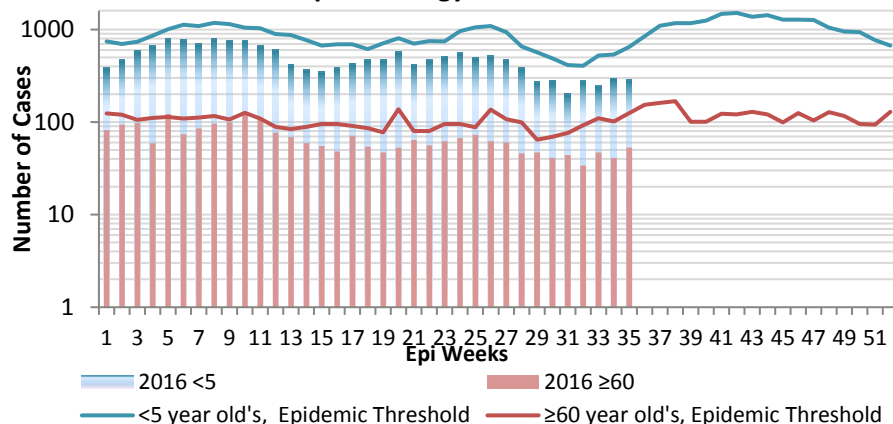
EW 35

August 27 to Sept. 3, 2016

Epidemiology Week 35

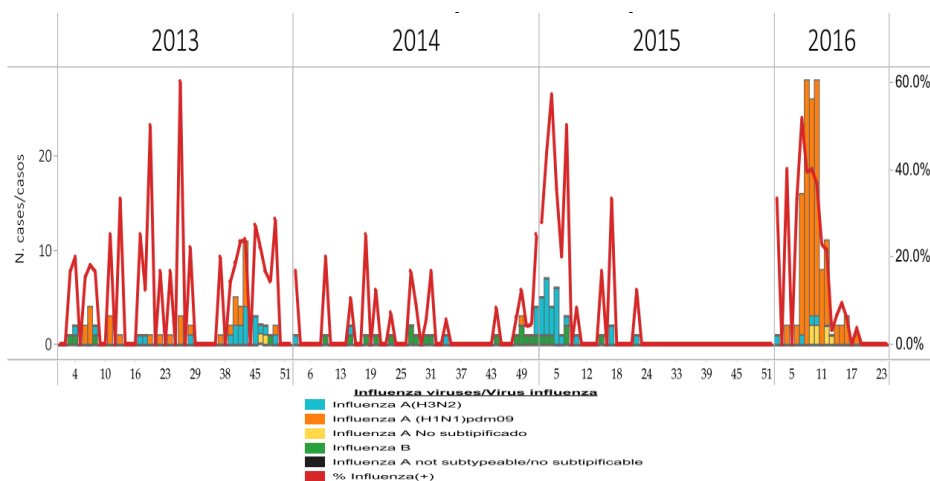
June 2016		
	EW 35	YTD
SARI cases	5	775
Total Influenza positive Samples	0	114
Influenza A	0	113
H3N2	0	1
H1N1pdm09	0	80
Not subtyped	0	32
Influenza B	0	0
Other	0	1

Fever & Resp Weekly Threshold vs Cases 2016, Epidemiology Week 35



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

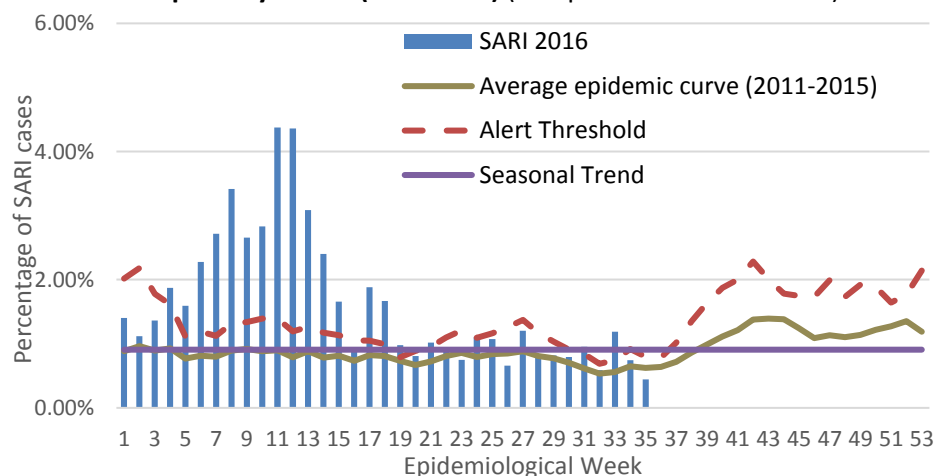
Cannot be calculated, as data sources do not collect all cases of Respiratory illness.



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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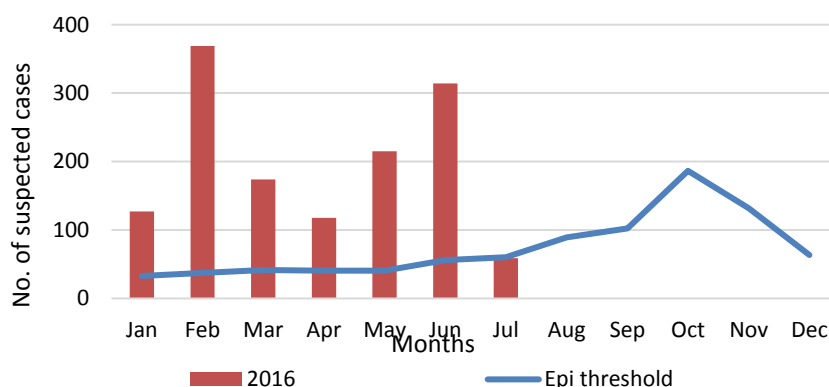
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Dengue Bulletin

August 28 to Sept. 3, 2016

Epidemiology Week 35

2016 Cases vs. Epidemic Threshold

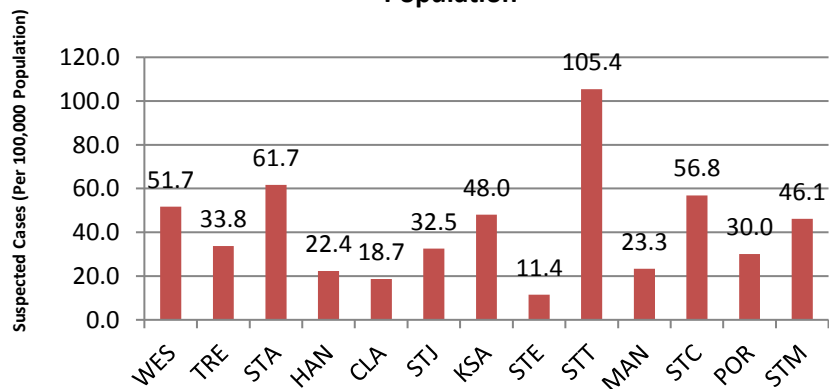


DISTRIBUTION

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

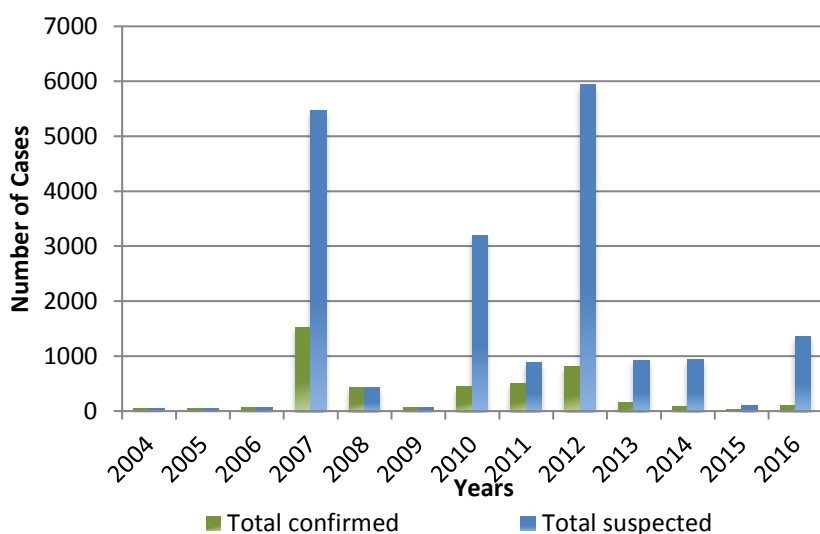
Suspected Dengue Fever Cases per 100,000 Parish Population



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

		2016		2015 YTD
		EW 35	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 35

August 28 to Sept. 3, 2016

Epidemiology Week 35

Weekly Breakdown of Gastroenteritis cases

Year	EW 33			YTD		
	<5	≥5	Total	<5	≥5	Total
2016	70	159	229	4,703	7,807	12,510
2015	117	173	290	7,914	8,263	16,177

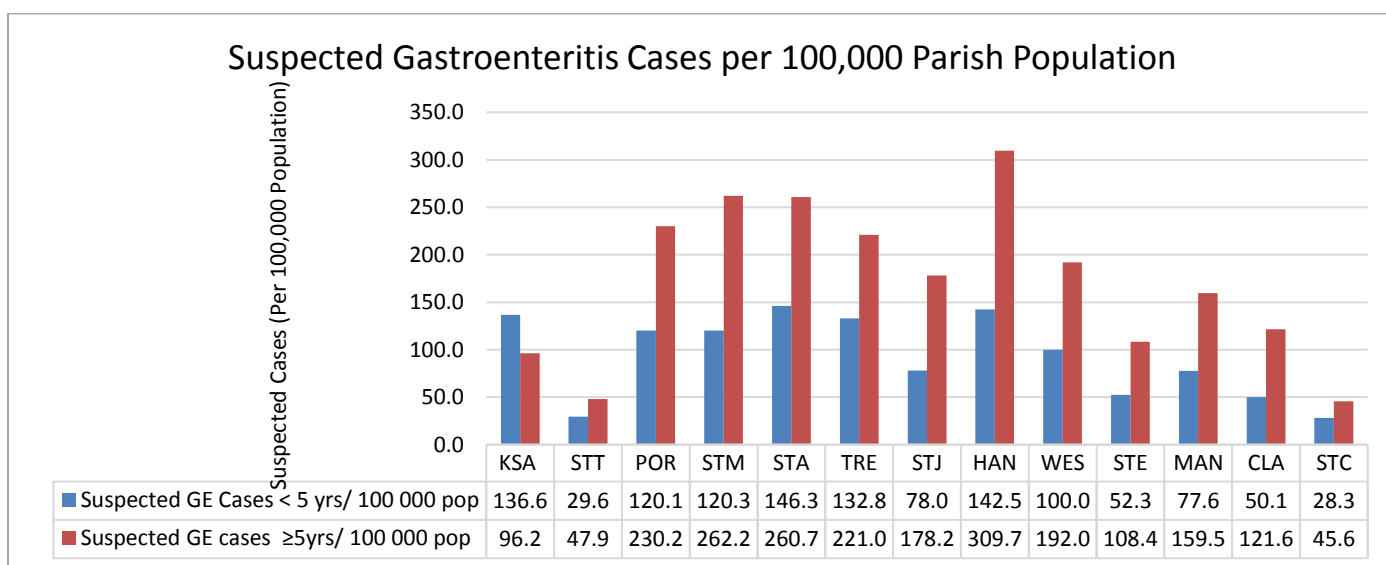
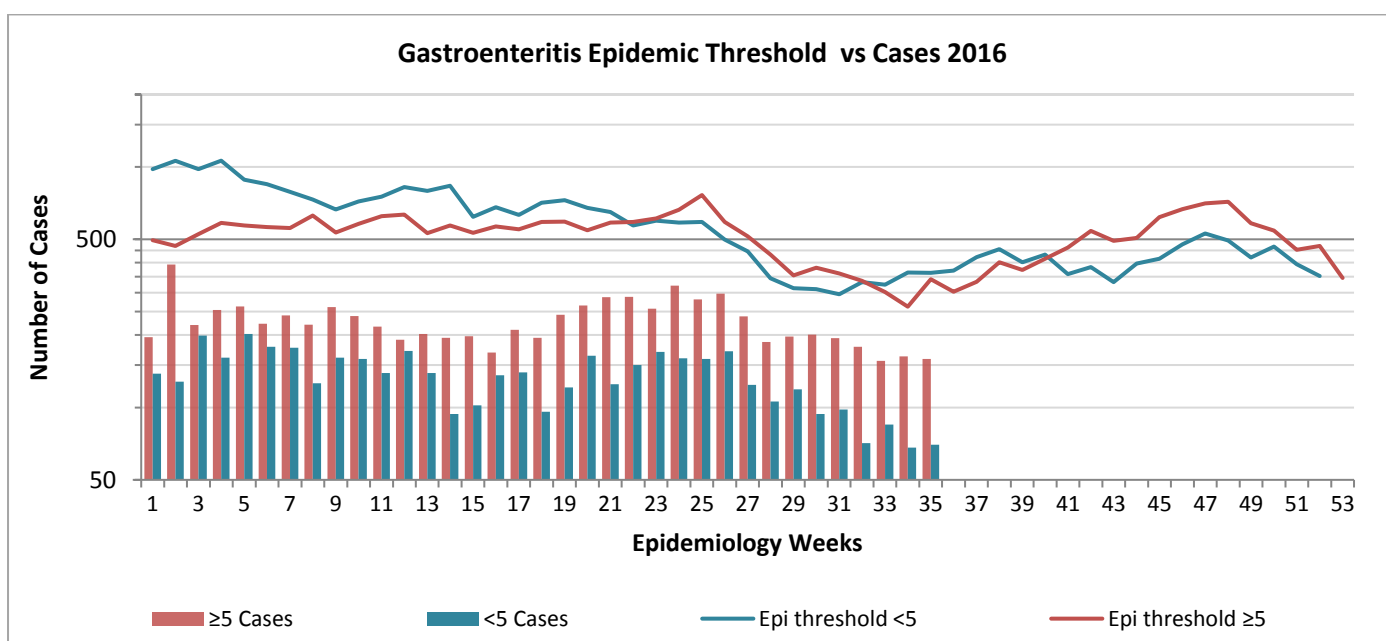
Gastroenteritis:

In Epidemiology Week 35, 2016, the total number of reported GE cases showed a 6% decrease compared to EW 35 of the previous year.

The year to date figure showed a 7.4% 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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