

WEEKLY EPIDEMIOLOGY BULLETIN

EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight

Drought



http://www.cdc.gov/nceh/ehs/images/photos/drought_cover.jpg

Drought is a natural phenomenon in which rainfall is lower than average for an extended period of time, resulting in inadequate water supply. Drought can lead to public health problems.

Some drought-related health effects are experienced in the short-term and can be directly observed and measured. However, the slow rise or chronic nature of drought can result in longer term, indirect health implications that are not always easy to anticipate or monitor.

Drought can impact surface water quality in many ways. Reduced stream and river flows can increase the concentration of pollutants in water and cause stagnation. Higher water temperatures in lakes and reservoirs lead to reduced oxygen levels, which can affect aquatic life and water quality.

Severe drought conditions can negatively affect air quality. During drought, there is an increased risk for wildfires. Particulate matter suspended in the air from these events can irritate the bronchial passages and lungs. This can make chronic respiratory illnesses worse and increase the risk for respiratory infections like bronchitis and pneumonia.

Source: <http://www.cdc.gov/nceh/ehs/publications/Drought.htm>

EPI WEEK 30



SYNDROMES

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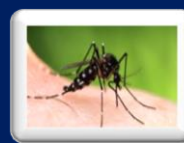
CLASS 1 DISEASES

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INFLUENZA

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DENGUE FEVER

PAGE 8



GASTROENTERITIS

PAGE 9



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

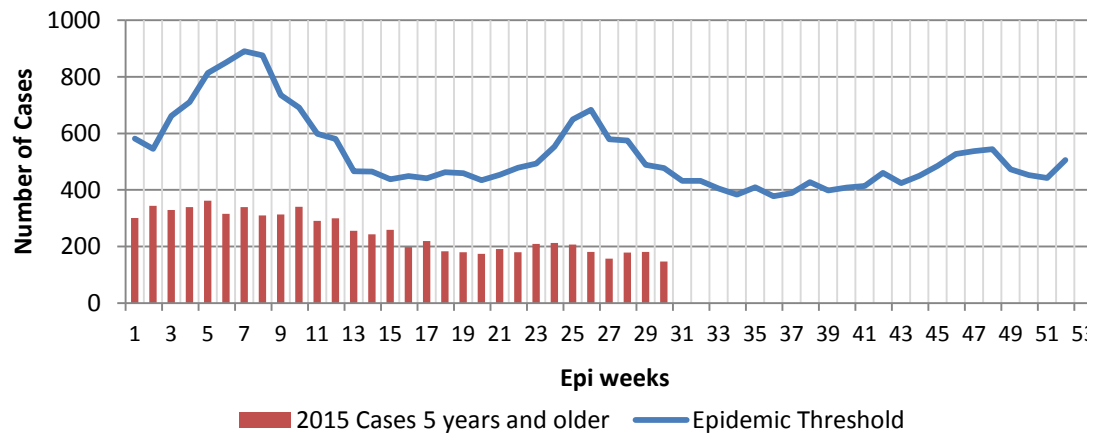
REPORTS FOR SYNDROMIC SURVEILLANCE

GASTROENTERITIS

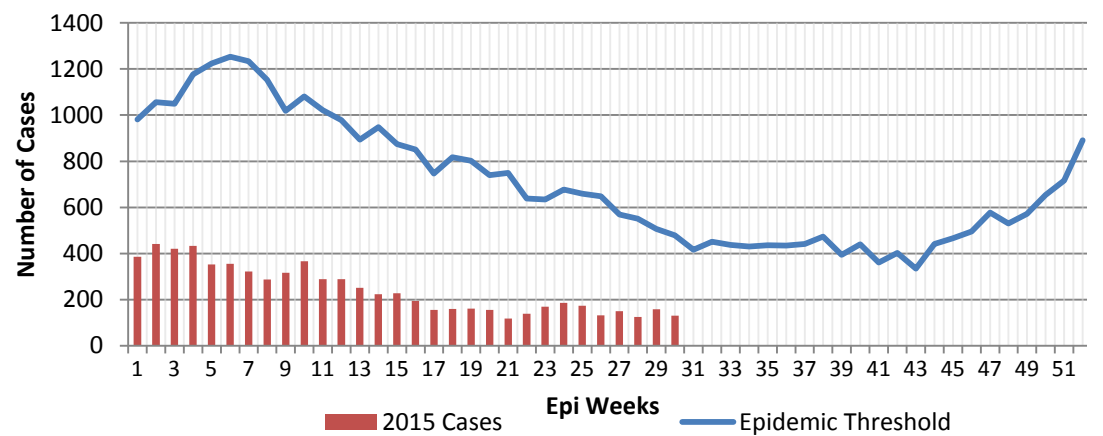
Three or more loose stools within 24 hours.



GE ≥5 Weekly Threshold vs Cases 2015, EW 1-30



GE <5 Weekly Threshold vs Cases 2015, EW 1-30

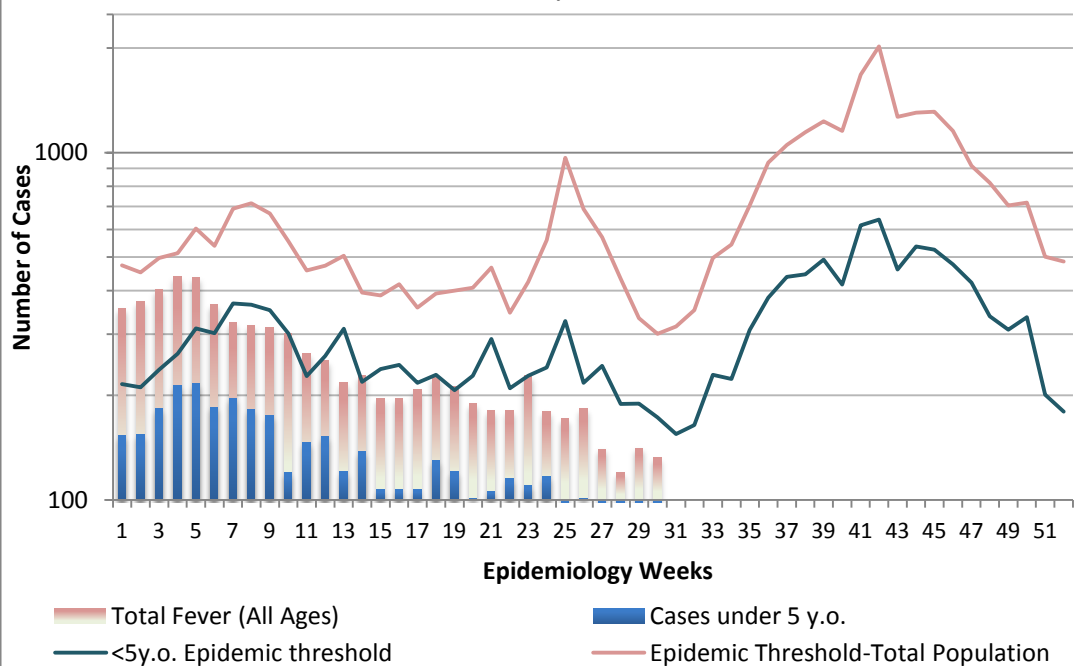


FEVER

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



Fever in under 5y.o. and Total Population 2015 vs Epidemic Thresholds, EW 1-30



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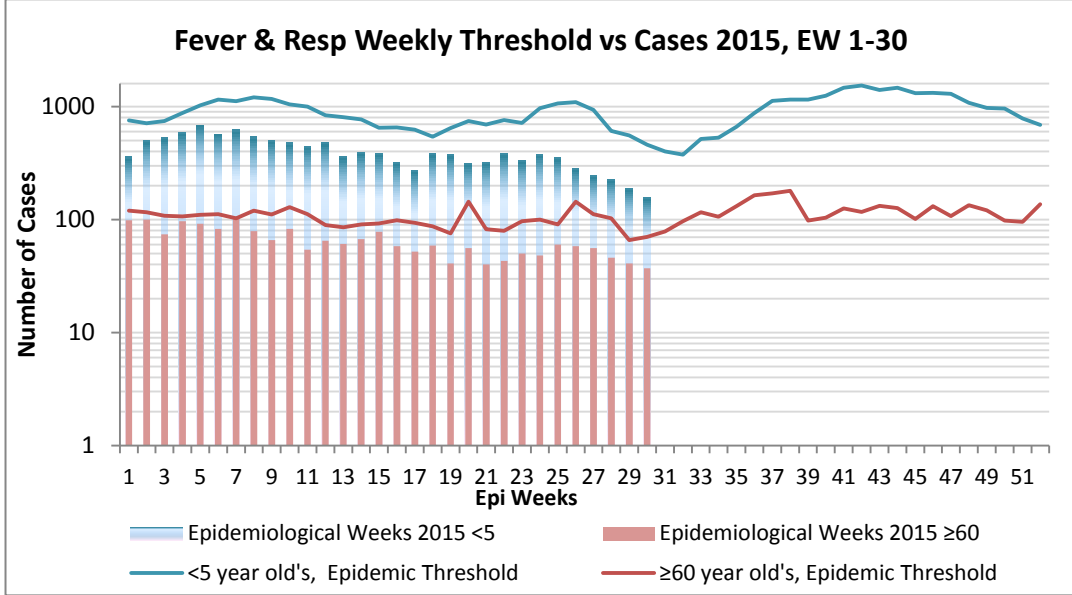
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REPORTS FOR SYNDROMIC SURVEILLANCE

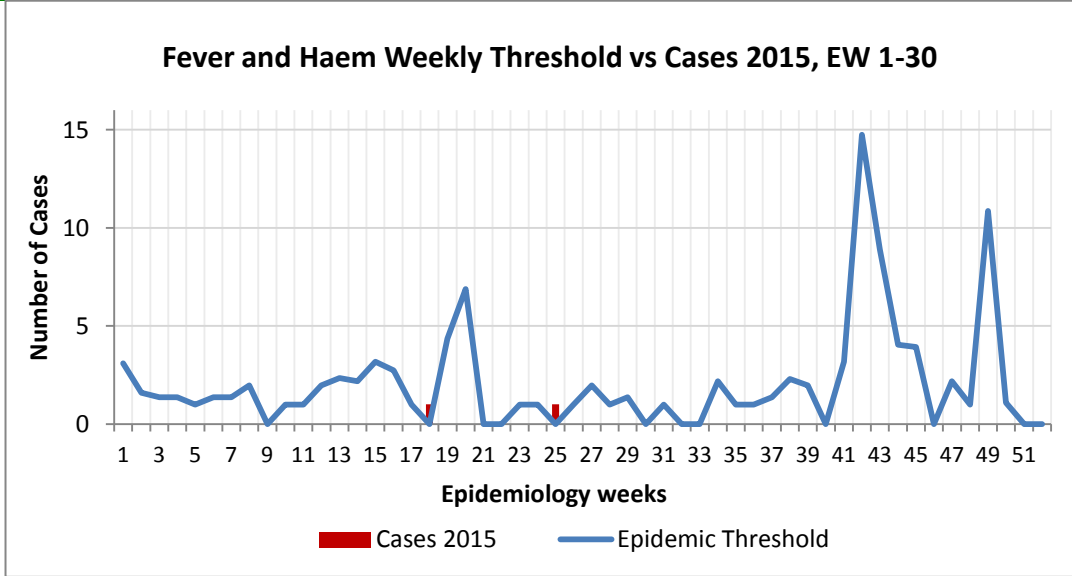
FEVER AND RESPIRATORY

Temperature of $>38^{\circ}C / 100.4^{\circ}F$ (or recent history of fever) in a previously healthy person with or without respiratory distress presenting with either cough or sore throat.



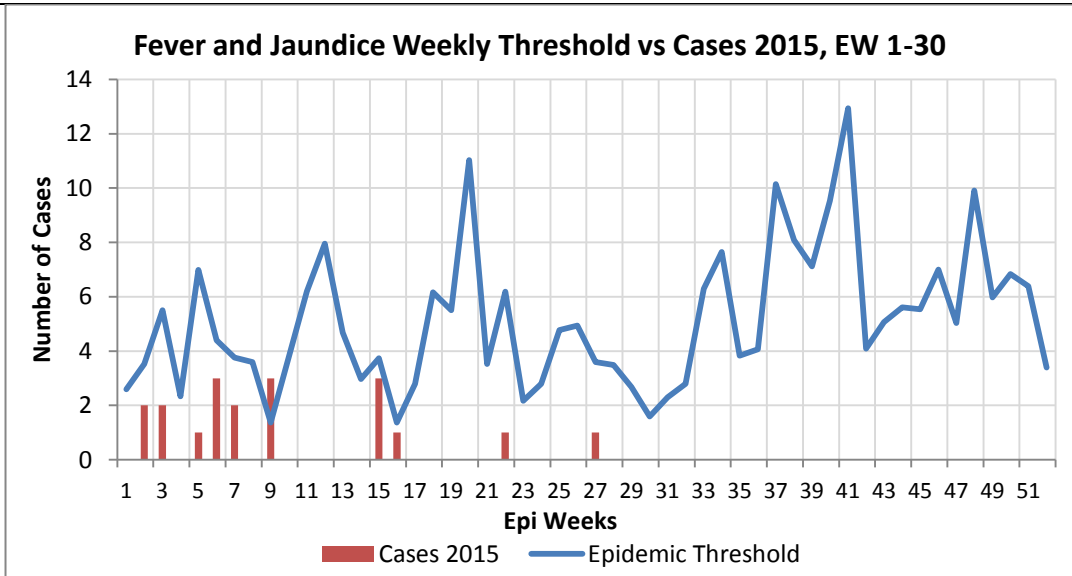
FEVER AND HAEMORRHAGIC

Temperature of $>38^{\circ}C / 100.4^{\circ}F$ (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE

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



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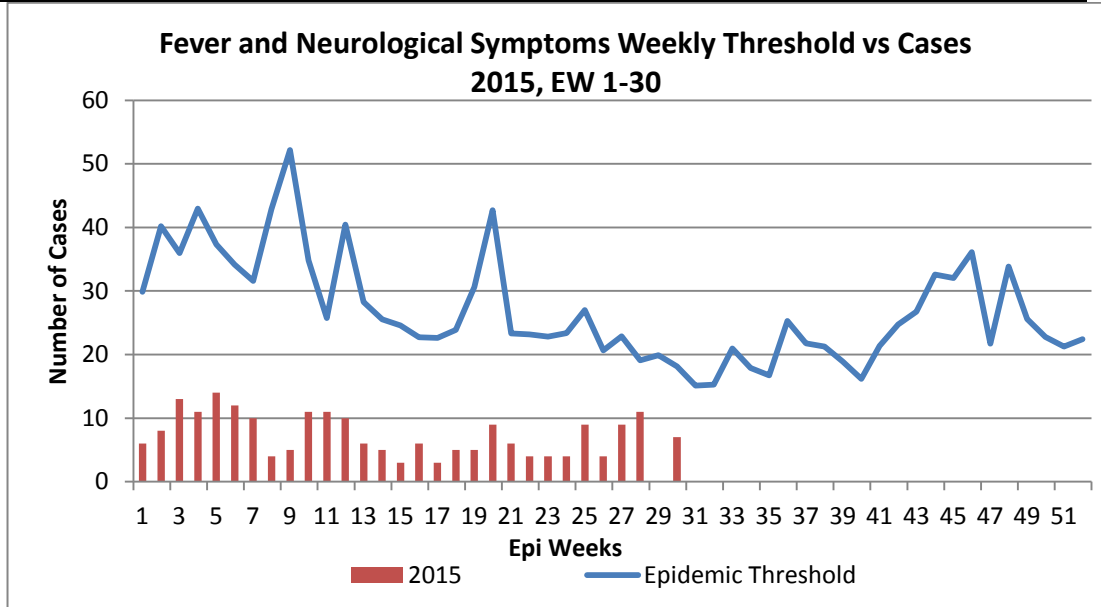
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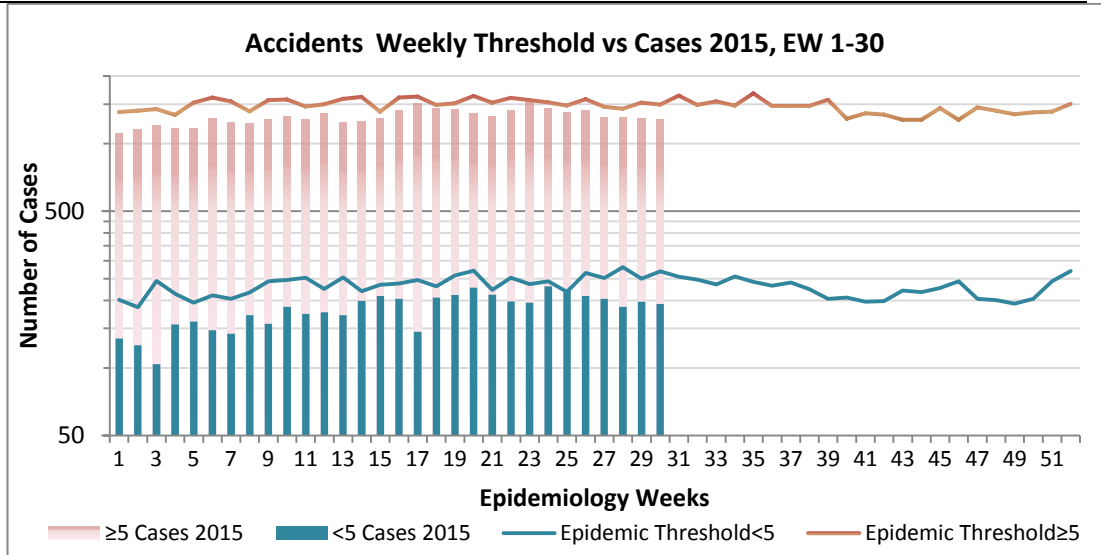
FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}C$ / $100.4^{\circ}F$ (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).



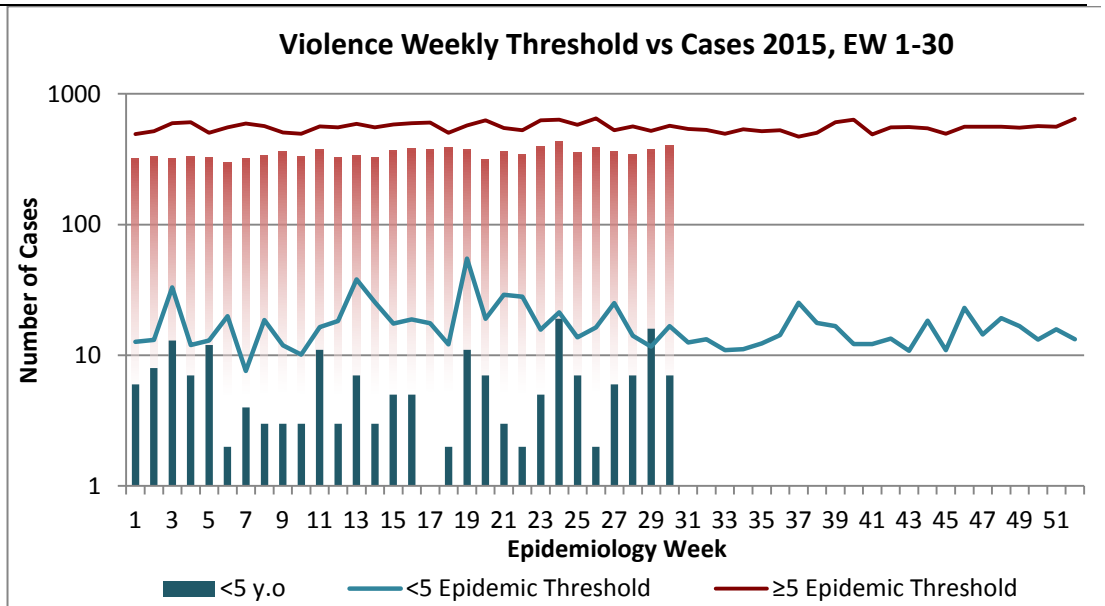
ACCIDENTS

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.



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— CLASS ONE NOTIFIABLE EVENTS and LEPTOSPIROSIS

Comments

	CLASS 1 EVENTS	CONFIRMED YTD		
		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	353	366	
	Cholera	0	0	
	Dengue Hemorrhagic Fever ¹	0	0	
	Hansen's Disease (Leprosy)	0	1	
	Hepatitis B	9	44	
	Hepatitis C	2	6	
	HIV/AIDS - See HIV/AIDS National Programme Report			
	Malaria (Imported)	2	1	
	Meningitis	210	435	
EXOTIC/ UNUSUAL	Plague	0	0	
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis	0	0	
	Neonatal Tetanus	0	0	
	Typhoid Fever	3	0	
	Meningitis H/Flu	0	0	
	AFP/Polio	0	0	
SPECIAL PROGRAMMES	Congenital Rubella Syndrome	0	0	
	Congenital Syphilis	0	0	
	Fever and Rash	Measles	0	0
		Rubella	0	0
	Maternal Deaths ²	24	30	
	Ophthalmia Neonatorum	142	178	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	2	6	
	Tetanus	1	0	
	Tuberculosis	25	39	
Yellow Fever	0	0		
UNCLASSIFIED**	Leptospirosis	12	9	

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.

The TB case detection rate established by PAHO for Jamaica is at least 90% of their calculated estimate of cases in the island, this is 180 (of 200) cases per year.

*Data not available

**Leptospirosis is awaiting classification as class 1, 2 or 3

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

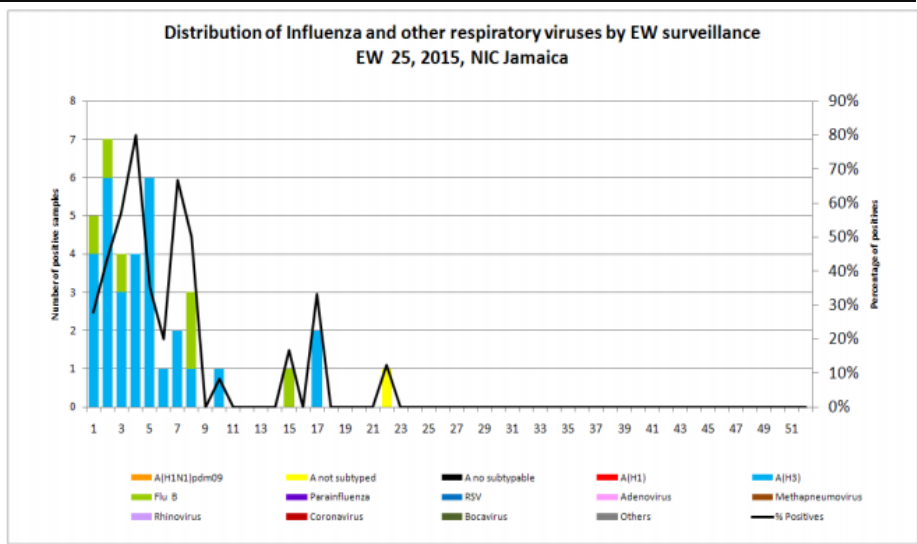
EW 30

July 26 – August 1, 2015

Epidemiology Week 30

July, 2015			Admitted Lower Respiratory Tract Infection and LRTI-related Deaths			
	EW 30	YTD	Current year		Previous year	
			Week 30 2015	YTD 2015	Week 30 2014	YTD 2014
SARI cases	17	541				
Total Influenza positive	0	37				
Samples			Admitted Lower Respiratory Tract Infections			
Influenza A	0	31	70	2421	72	2052
H3N2	0	30	Pneumonia-related Deaths			
			1	40	5	44
<u>H1N1pdm09</u>	0	0				
Influenza B		6				

Comments:
 The current circulation of influenza viruses is sporadic with Influenza viruses detected between epidemiological weeks 1 and 22 consisting of A/H3N2 (81%) and Influenza B, Yamagata Lineage (16%). Both viruses are components of the 2014 -2015 Influenza Vaccines for the Northern Hemisphere.

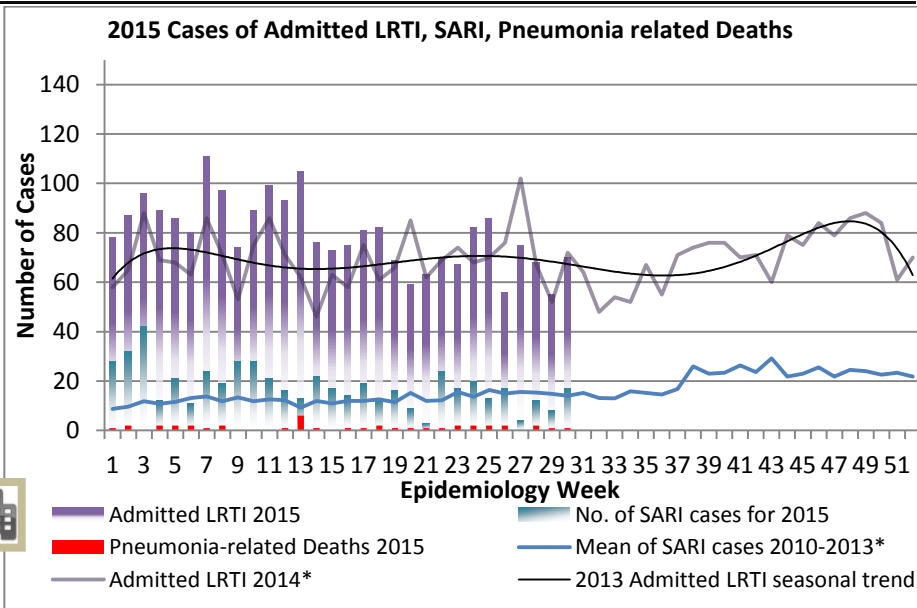


INDICATORS

Burden
 Year to date, respiratory syndromes account for 3.6% 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.



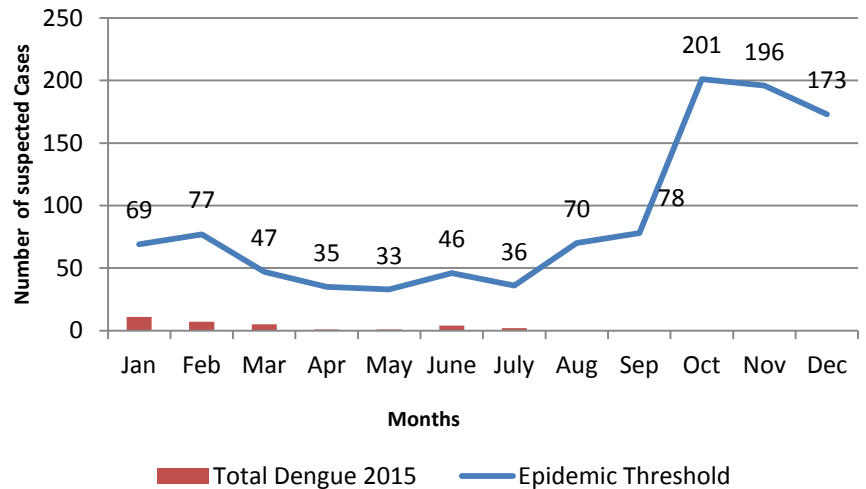
***Additional data needed to calculate Epidemic Threshold**

Dengue Bulletin

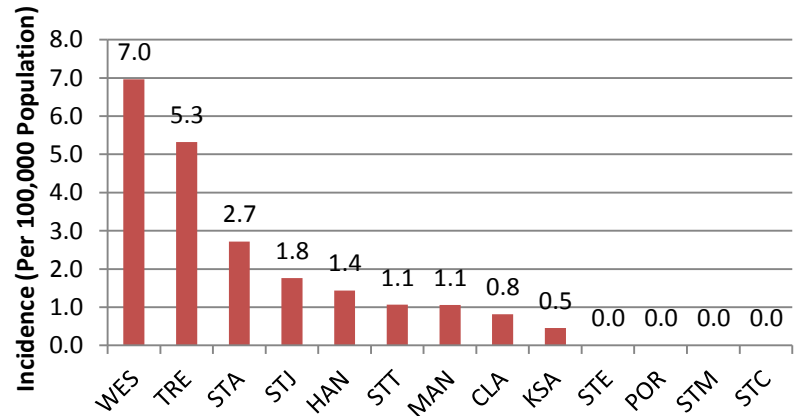
July 26 – August 1, 2015

Epidemiology Week 30

2015 Cases vs. Epidemic Threshold



Parish Incidence



DISTRIBUTION

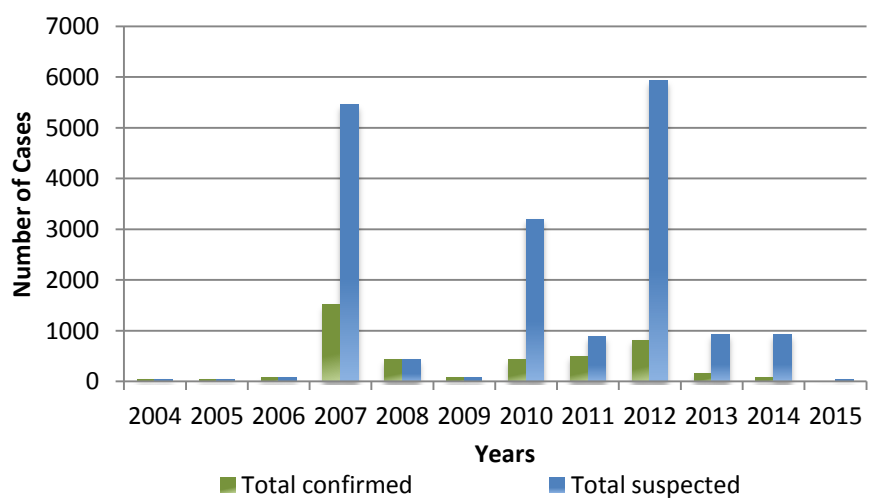
Year-to-Date Suspected Dengue Fever

	M	F	Total	%
<1	3	2	5	15.2
1-4	1	0	1	3.0
5-14	3	3	6	18.2
15-24	3	3	6	18.2
25-44	6	5	11	33.3
45-64	2	1	3	9.1
≥65	1	0	1	3.0
Unknown	0	0	0	0
TOTAL	19	14	33	100

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

		2015		2014 YTD
		EW 30	YTD	
Total Suspected Dengue Cases		0	33	124
Lab Confirmed Dengue cases		0	3	4
CONFIRMED	DHF/DSS	0	0	0
	Dengue Related Deaths	0	0	0

Dengue Cases by Year, 2004-2015, Jamaica



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Gastroenteritis Bulletin

EW
30

July 26 – August 1, 2015

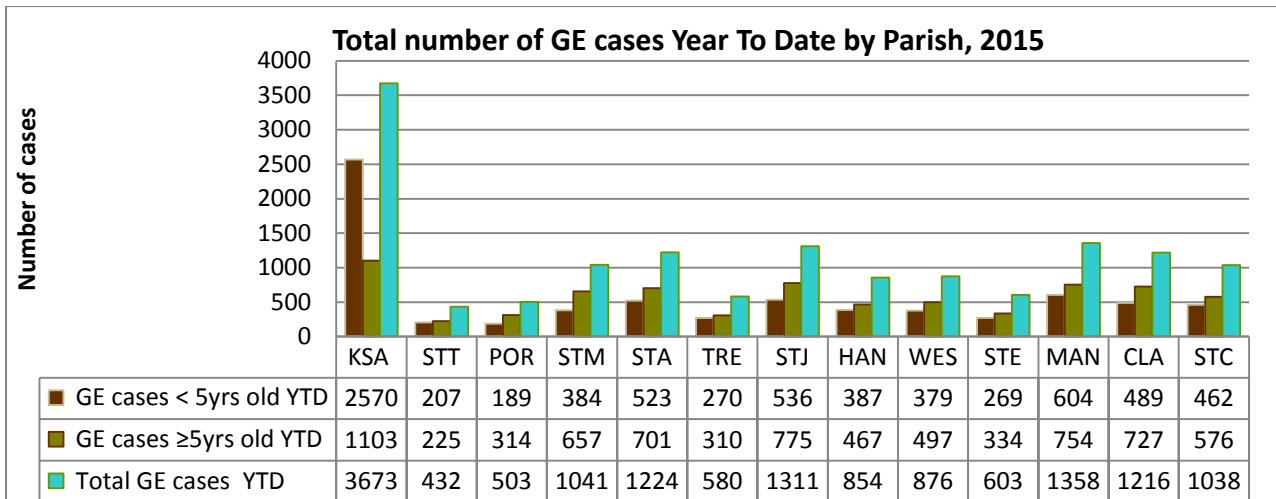
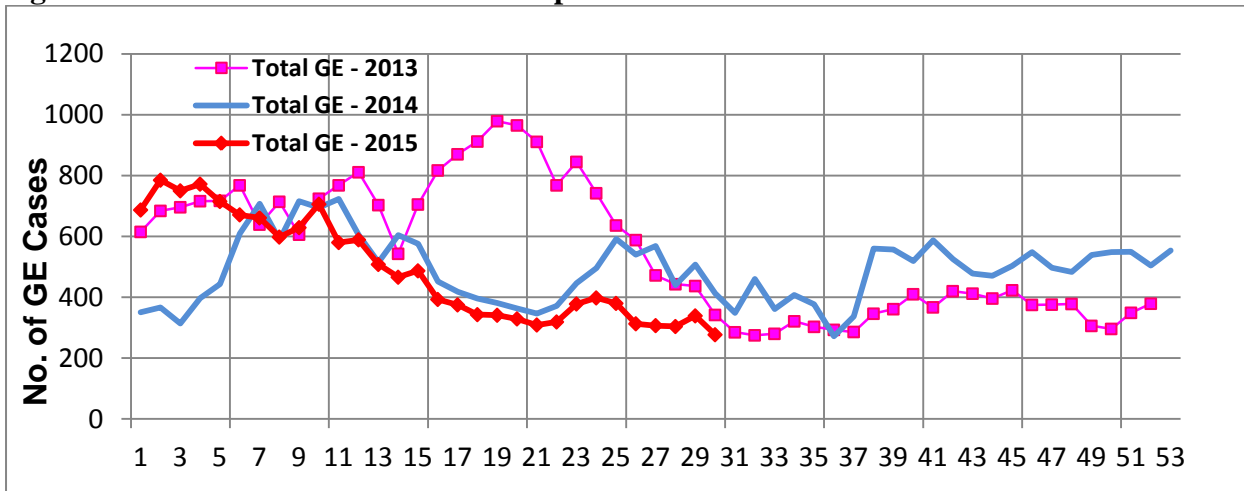
Epidemiology Week 30

Weekly Breakdown of Gastroenteritis cases

Year	EW 30			YTD		
	<5	≥5	Total	<5	≥5	Total
2015	130	147	277	7269	7440	14709
2014	222	191	413	7635	7284	14919

In Epidemiology Week 30, 2015, the total number of reported GE cases showed a 33% decrease compared to EW 30 of the previous year. The year to date figure showed a 1% decrease in cases for the period.

Figure 1: Total Gastroenteritis Cases Reported 2013-2015



RESEARCH PAPER

Reduction in Default of Second HIV DNA-PCR Screening of HIV Exposed Infants through Improved Patient Tracking and Information Systems

M Hamilton¹, C Brown¹, K Guerra², C Williams, D Smith-Wint¹, J Thame¹, L Richards¹

National Public Health Laboratory, Ministry of Health, Jamaica

Clinton Health Access Initiative

Objectives: To develop a low cost tracking tool for the monitoring of infant HIV-DNA screens and to determine its effect on the reduction of second test defaults of HIV-exposed infants.

Methods: Data from all infants screened since the introduction of DNA-PCR testing was collated and entered on an Excel based platform. The database created utilized four critical elements for sample identification, mother's full name and patient's full name, date of birth, and gender. It provided the following outputs: total testing levels and results; patient testing history; sample result turnaround time analysis; and second test de-default reports. There optional tracking by health regions and sub-regions, and testing sites. Data for two six month periods, one each before and after the introduction of the database, were compared.

Results: Within the first six months of implementation of the database, second DNA-PCR test defaults reduced by approximately 16%.

Conclusions: Utilization of low cost measures such as the EID Database & Tracking Tool can improve the tracking and management of HIV exposed infants. This system is a low cost solution which does not require major IT infrastructure overhauls, can be developed in a relatively short time, and is not labor intensive.



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