Released August 7, 2015 ISSN 0799-3927

Week ending July 25, 2015 Epidemiology Week 29

WEEKLY EPIDEMIOLOGY BULLETIN

EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight

10 Facts on Antimicrobial Resistance (Part 2)

Animal husbandry is a source of resistance to antibiotics

Sub-therapeutic doses of antibiotics are used in animal-rearing for promoting growth or preventing diseases. This can result in resistant microorganisms, which can spread to humans.

Poor infection prevention and control amplifies drug resistance

Poor infection prevention and control can increase the spread of drug-resistant infections. Hospitalized patients are one of the main reservoirs of resistant microorganisms. Patients who are carriers of resistant microorganisms can act as a source of infection for others.

Weak surveillance systems contribute to the spread of drug resistance

While surveillance for the emergence of drug resistant TB and HIV infection is improving, currently there are few well-established networks that regularly collect and report relevant data on drug resistance. Some countries lack laboratory facilities that can accurately identify resistant microorganisms. This impairs the ability to detect emergence of resistance and take prompt actions.

The pipeline for new tools to combat drug resistance is almost dry

Existing antibiotics and anti-parasitic drugs, and, to a lesser extent, antiviral drugs, are losing their effect. At the same time there is insufficient investment in developing new antimicrobials. Similarly, there is insufficient new research into new diagnostics to detect resistant microorganisms; and new vaccines for preventing and controlling infections. If this trend continues, the arsenal of tools to combat resistant microorganism will soon be depleted.

WHO calls on stakeholders to combat drug resistance

The threat from drug resistance is increasing. There is a need for urgent action; everyone must play a part. The complex problem of drug resistance requires collective action. WHO has developed a draft global action plan to combat antimicrobial resistance which has been submitted to the sixty-eighth World Health Assembly, taking place in May 2015. Governments will be asked to approve the plan and, in doing so, declare their commitment to address this global health threat.

Source: who.int/features/factfiles/antimicrobial_resistance/facts/en/index4.html

EPI WEEK 29

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

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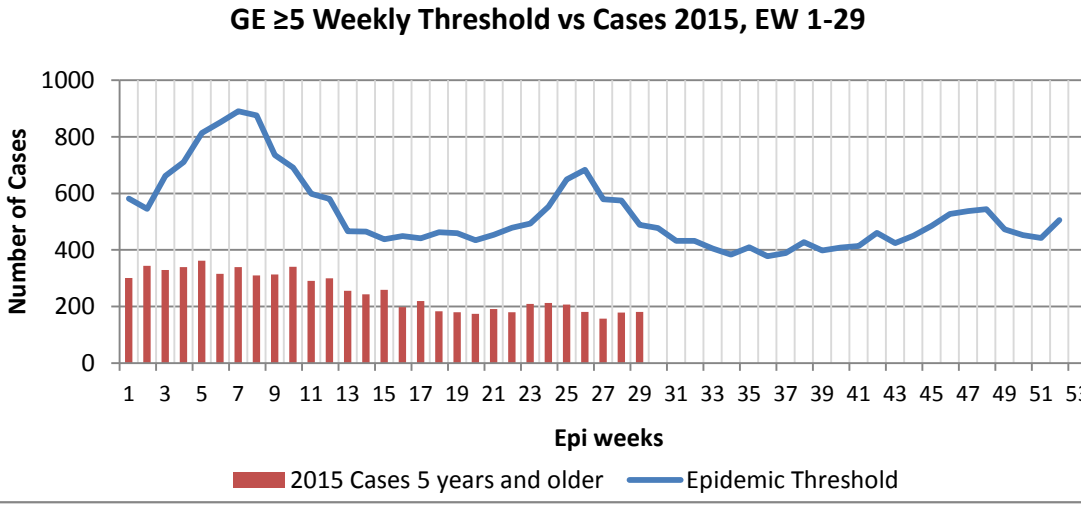
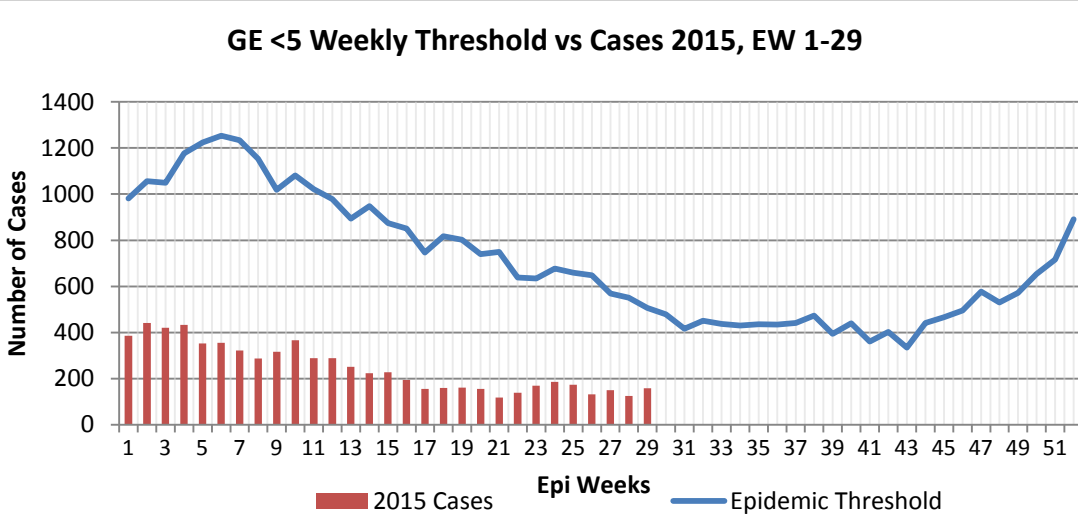
REPORTS FOR SYNDROMIC SURVEILLANCE

GASTROENTERITS

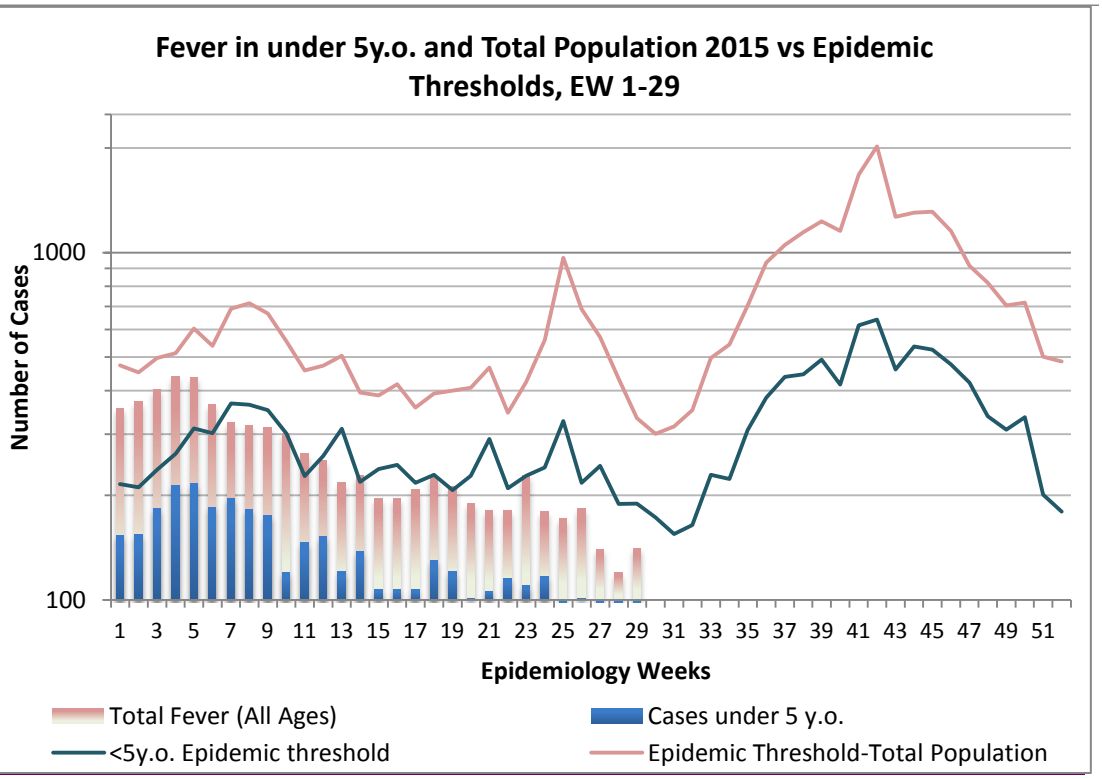
Three or more loose stools within 24 hours.





FEVER

Temperature of >38^0C /100.4^0F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



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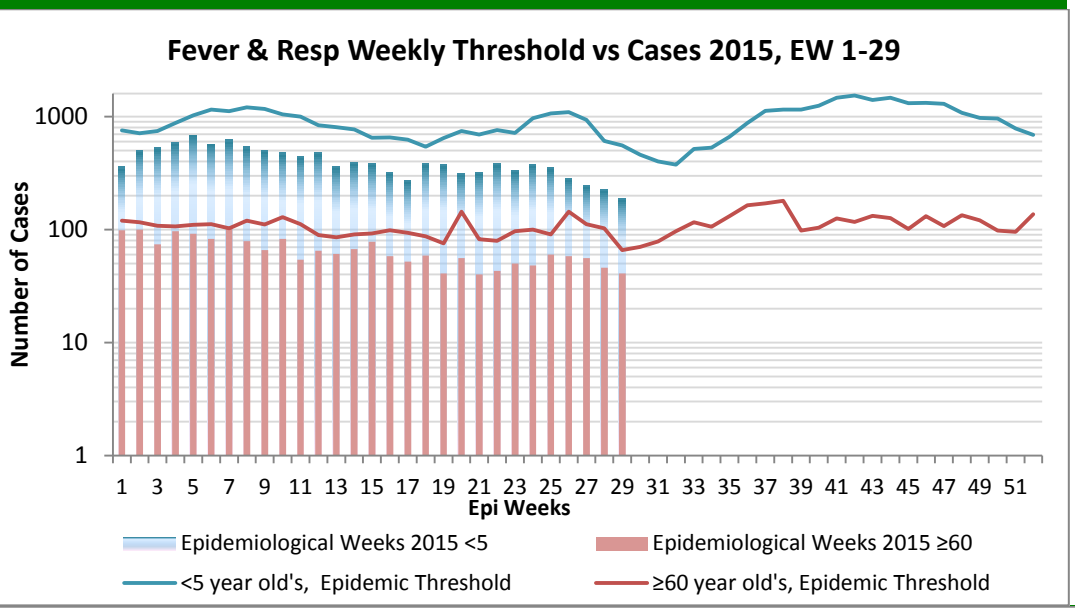
REPORTS FOR SYNDROMIC SURVEILLANCE

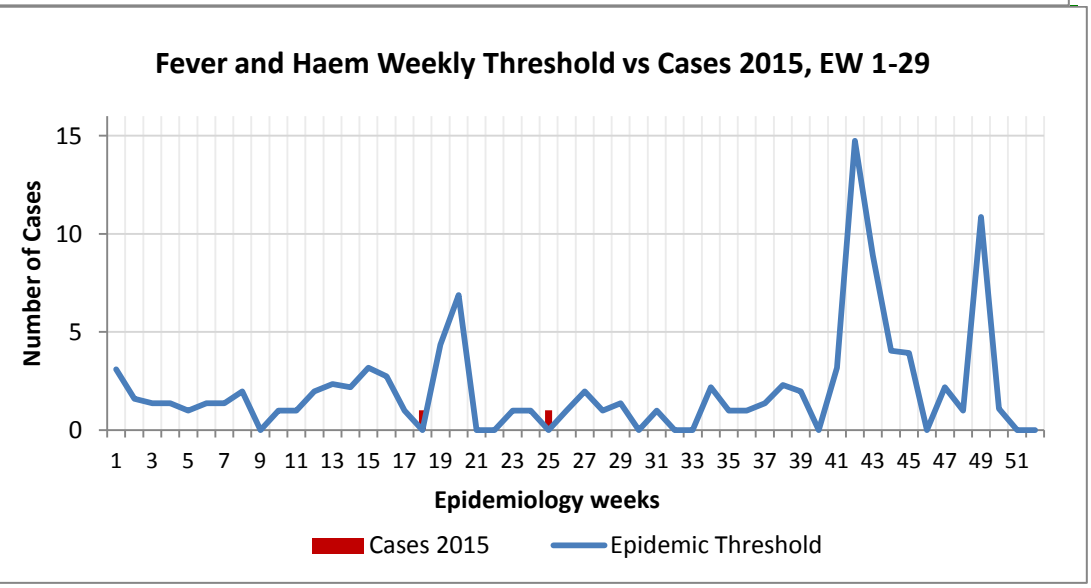
FEVER AND RESPIRATORY

Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person with or without respiratory distress presenting with either cough or sore throat.



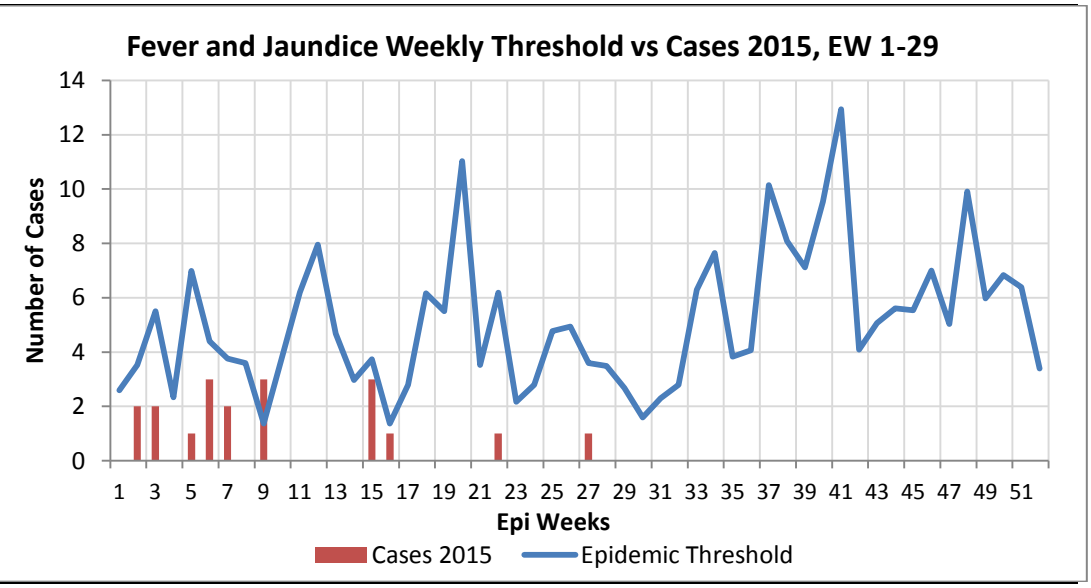
FEVER AND HAEMORRHAGIC

Temperature of >38^0C /100.4^0F (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 >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with jaundice.



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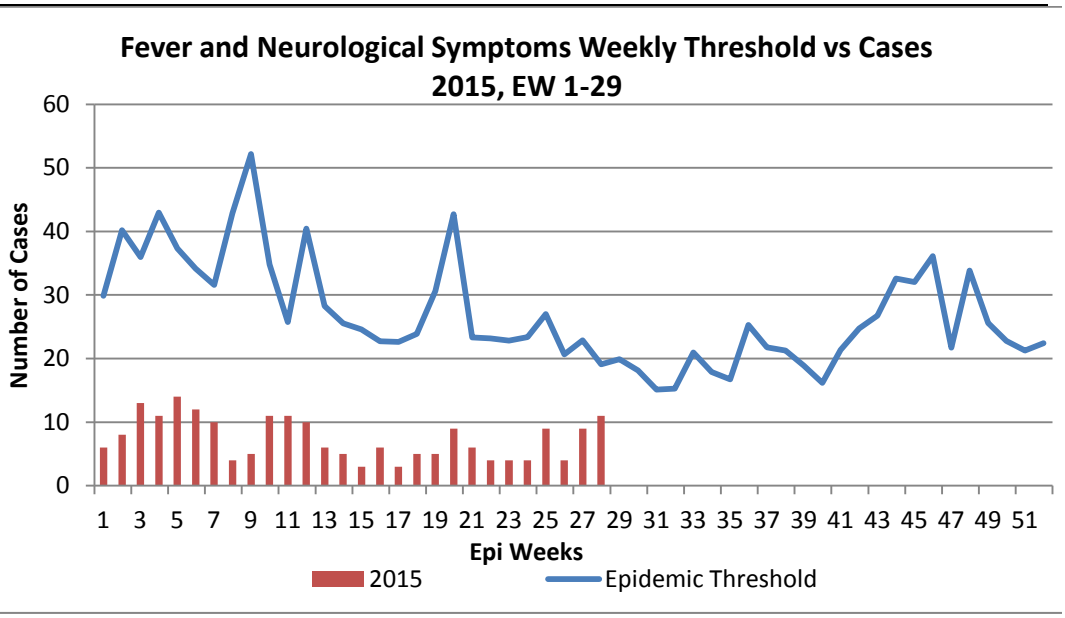
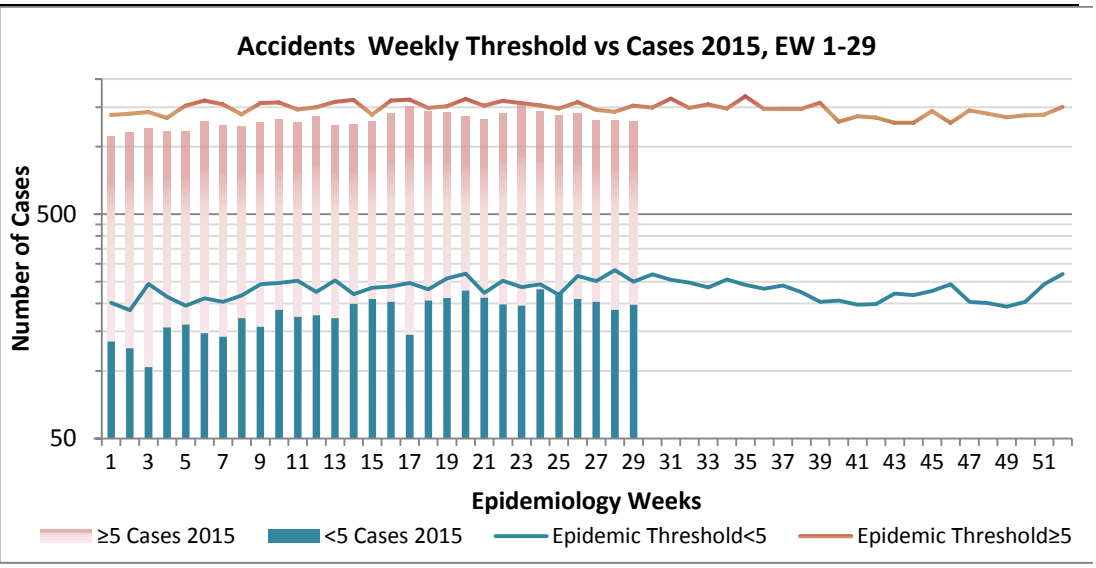
FEVER AND NEUROLOGICAL

Temperature of $>38^0C$ /100.4^0F (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).



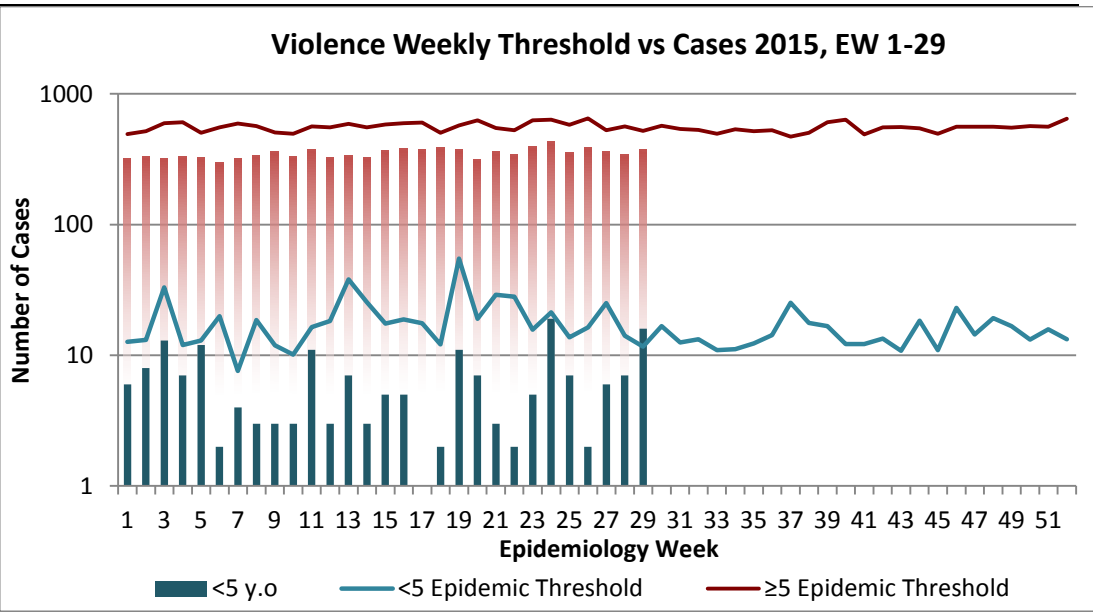
ACCIDENTS

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

	CLASS 1 EVENTS		CONFIRMED YTD CURRENT YEAR	CONFIRMED YTD PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		341	359
	Cholera		0	0
	Dengue Hemorrhagic Fever[1]		0	0
	Hansen's Disease (Leprosy)		0	1
	Hepatitis B		9	43
	Hepatitis C		2	6
	HIV/AIDS - See HIV/AIDS National Programme Report			
	Malaria (Imported)		2	1
	Meningitis		187	426
EXOTIC/ UNUSUAL	Plague		0	0
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis		0	0
	Neonatal Tetanus		0	0
	Typhoid Fever		3	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[2]		24	26
	Ophthalmia Neonatorum		132	174
	Pertussis-like syndrome		0	0
	Rheumatic Fever		2	6
	Tetanus		1	0
	Tuberculosis		25	39
	Yellow Fever		0	0
UNCLASSED**	Leptospirosis		12	9

Comments

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.

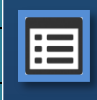
The TB case detection rate established by PAHO for Jamaica is at least 90% of their calculated estimate of cases in the island, this is 180 (of 200) cases per year.

*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 29

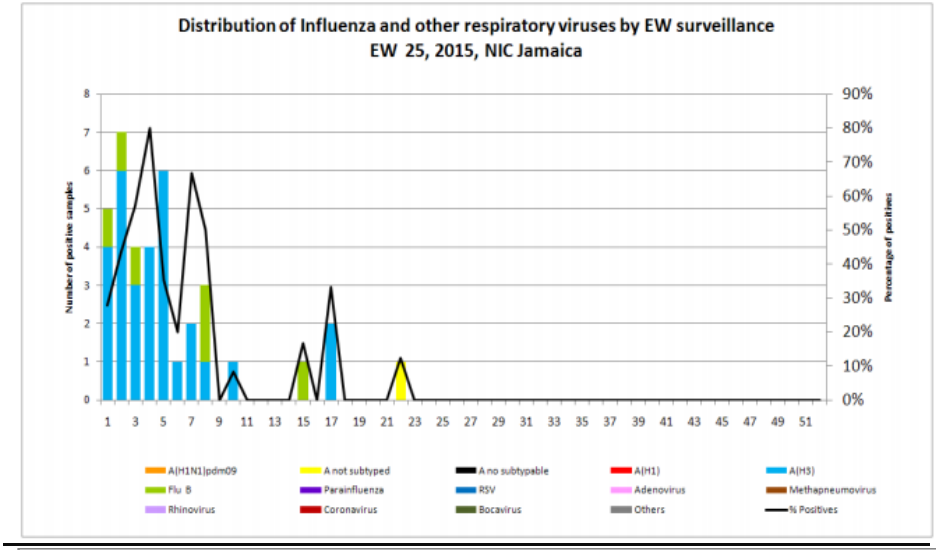
July 19 – July 25, 2015 Epidemiology Week 29

July, 2015	*EW 29*	*YTD*
SARI cases	*8*	*524*
Total Influenza positive	***0***	***37***
Samples		
Influenza A	***0***	***31***
H3N2	*0*	*30*
H1N1pdm09	*0*	*0*
Influenza B		***6***

Admitted Lower Respiratory Tract Infection and LRTI-related Deaths

	Current year		Previous year	
	Week 29 2015	**YTD** 2015	Week 29 2014	YTD 2014
Admitted Lower Respiratory Tract Infections	55	2351	52	1980
Pneumonia-related Deaths	1	39	0	39

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.

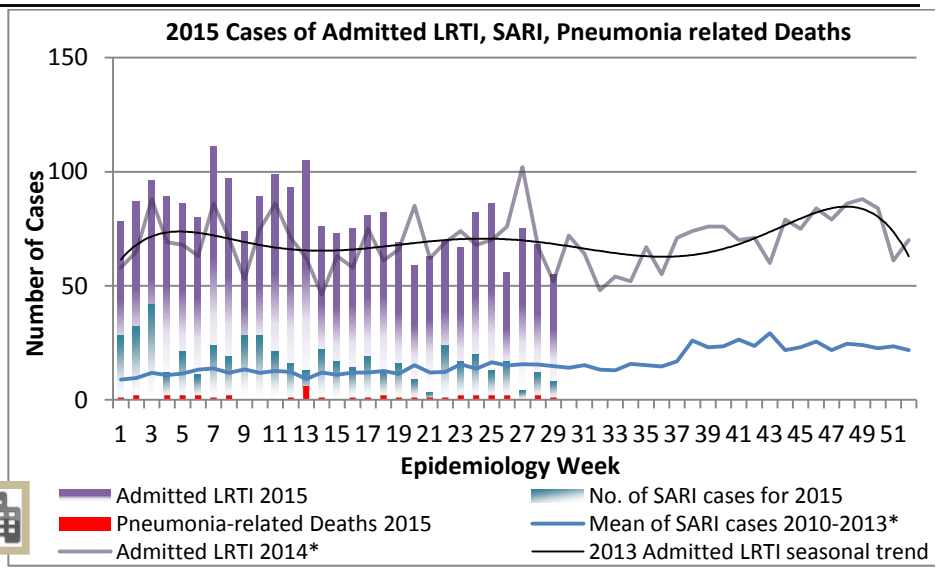


INDICATORS

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**

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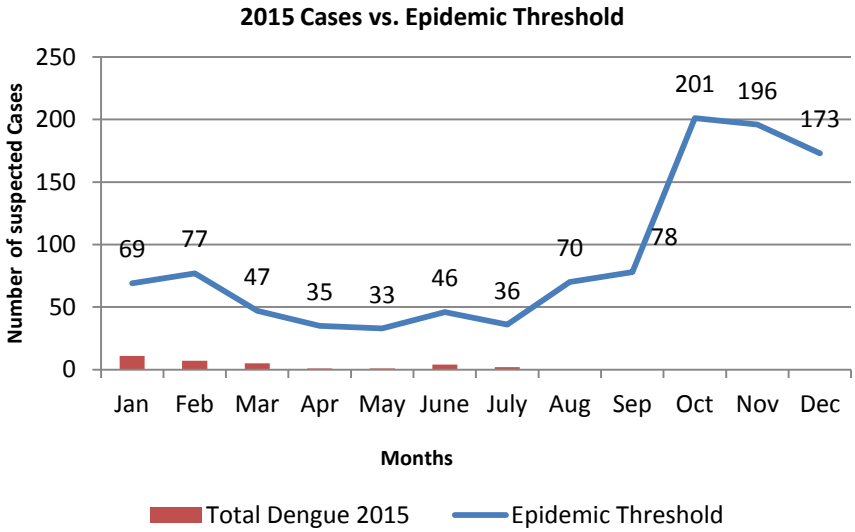
Dengue Bulletin

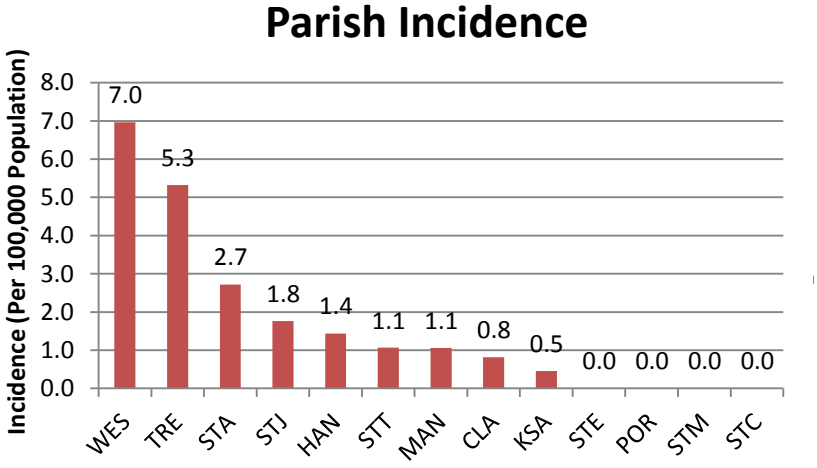
July 19 – July 25, 2015 Epidemiology Week 29



DISTRIBUTION

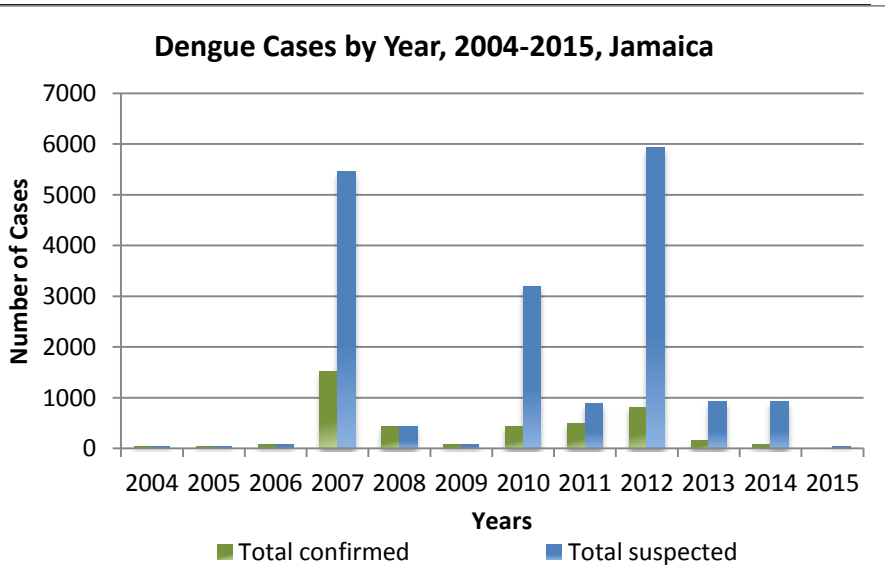
Year-to-Date Suspected Dengue Fever

	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 29	YTD	
Total Suspected Dengue Cases		0	33	118
Lab Confirmed Dengue cases		0	3	4
CONFIRMED	DHF/DSS	0	0	0
CONFIRMED	Dengue Related Deaths	0	0	0



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Gastroenteritis Bulletin

EW 29

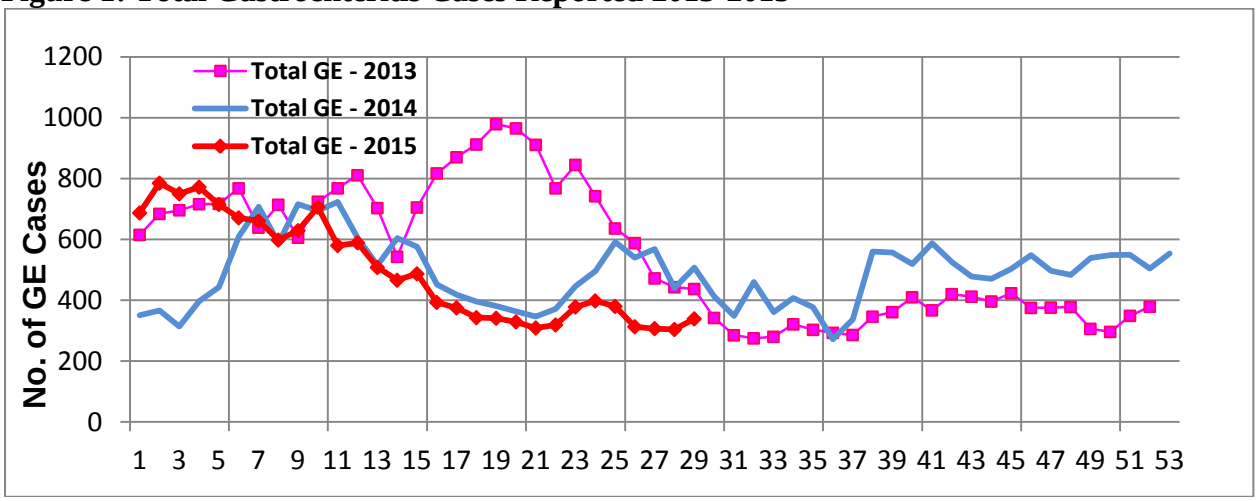
July 19 – July 25, 2015 Epidemiology Week 29

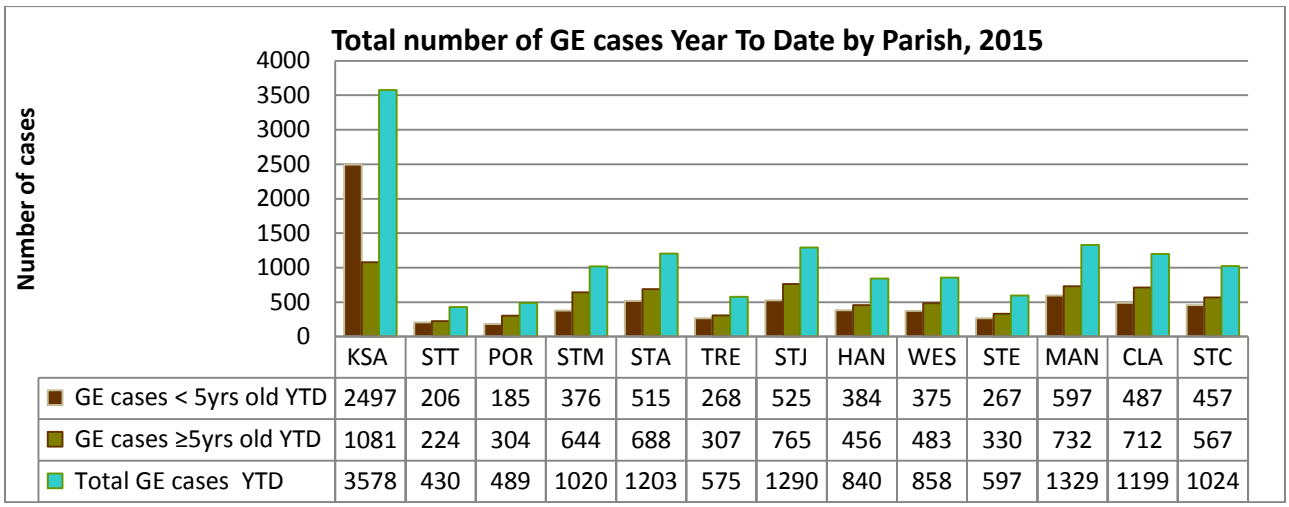
Weekly Breakdown of Gastroenteritis cases

Year	EW 29			YTD		
	<5	≥5	Total	<5	≥5	Total
2015	158	181	339	7139	7293	14432
2014	270	237	507	7413	7093	14506

In Epidemiology Week 29, 2015, the total number of reported GE cases showed a 33% decrease compared to EW 29 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





	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC
GE cases < 5yrs old YTD	2497	206	185	376	515	268	525	384	375	267	597	487	457
GE cases ≥5yrs old YTD	1081	224	304	644	688	307	765	456	483	330	732	712	567
Total GE cases YTD	3578	430	489	1020	1203	575	1290	840	858	597	1329	1199	1024

RESEARCH PAPER

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

M Hamilton[1], C Brown[1], K Guerra[2], C Williams, D Smith-Wint[1], J Thame[1], L Richards[1]
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 deter-mine 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-fault 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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