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Week ending March 25, 2016 Epidemiology Week 12

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight

Lymphatic Filariasis

Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquitoes. Infection is usually acquired in childhood causing hidden damage to the lymphatic system.
Culex, Aedes, andAnopheles mosquitoes are the carriers.
The painful and profoundly disfiguring visible manifestations of the disease, lymphoedema, elephantiasis and scrotal swelling occur later in life and can lead to permanent disability. These patients are not only physically disabled, but suffer mental, social and financial losses contributing to stigma and poverty.

The World Health Organization (WHO) today congratulates the Republic of the Marshall Islands on eliminating lymphatic filariasis — also known as elephantiasis — as a public health problem.

Lymphatic filariasis is caused by infection with parasites classified as nematodes (roundworms) of the family Filariodidea. There are 3 types of these thread-like filarial worms:
Wuchereria bancrofti, which is responsible for 90% of the cases
Brugia malayi, which causes most of the remainder of the cases
Brugia timori, which also causes the disease.
Adult worms lodge in the lymphatic vessels and disrupt the normal function of the lymphatic system. They produce millions of microfilariae (immature larvae) that circulate in the blood.
Mosquitoes are infected with microfilariae by ingesting blood when biting an infected host. Microfilariae mature into infective larvae within the mosquito. When infected mosquitoes bite people, mature parasite larvae are deposited on the skin from where they can enter the body. The larvae then migrate to the lymphatic vessels where they develop into adult worms, thus continuing a cycle of transmission.

- Lymphatic filariasis impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability and social stigma.

- 947 million people in 54 countries worldwide remain threatened by lymphatic filariasis and require preventive chemotherapy to stop the spread of this parasitic infection.
- In 2000 over 120 million people were infected, with about 40 million disfigured and incapacitated by the disease.
- Lymphatic filariasis can be eliminated by stopping the spread of infection through preventive chemotherapy with safe medicine combinations repeated annually for at least 5 years. 6.2 billion treatments have been delivered to stop the spread of infection since 2000.

Source: www.who.int/mediacentre/factsheets/fs102/en/

EPI WEEK 12

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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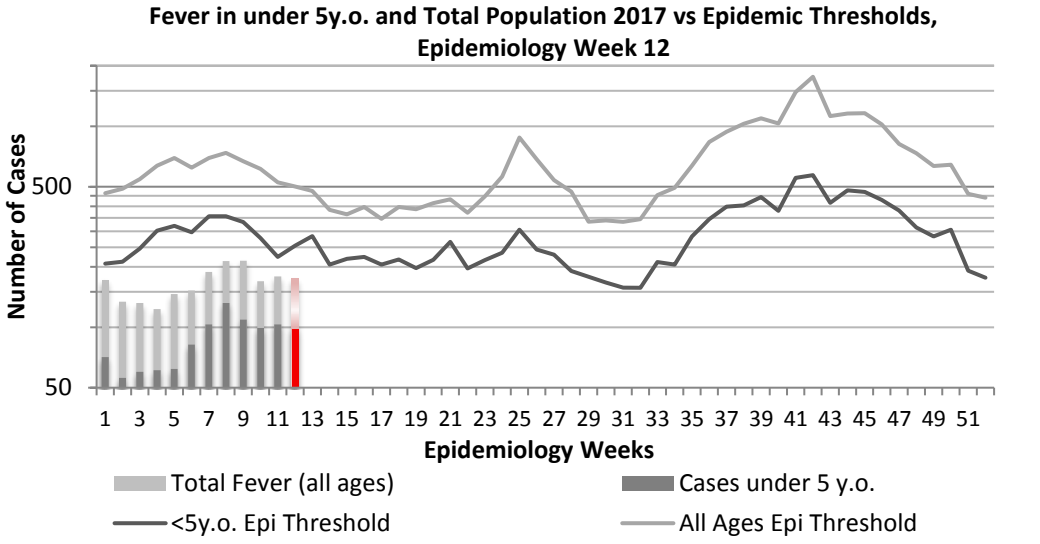
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

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

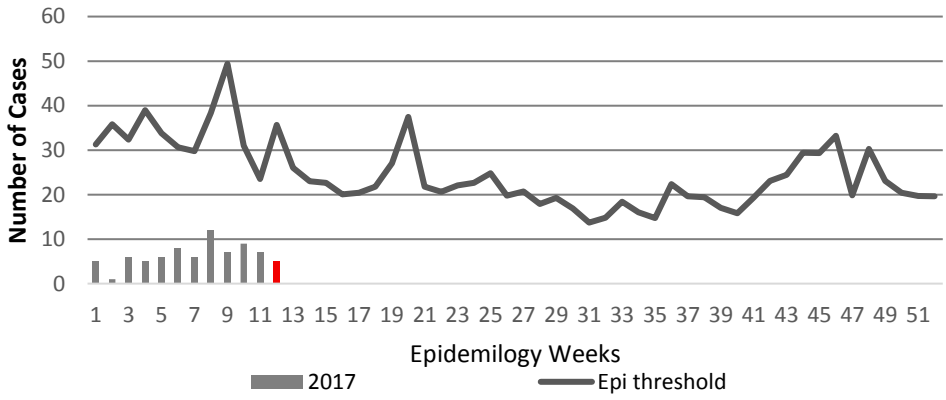
KEY

RED CURRENT WEEK



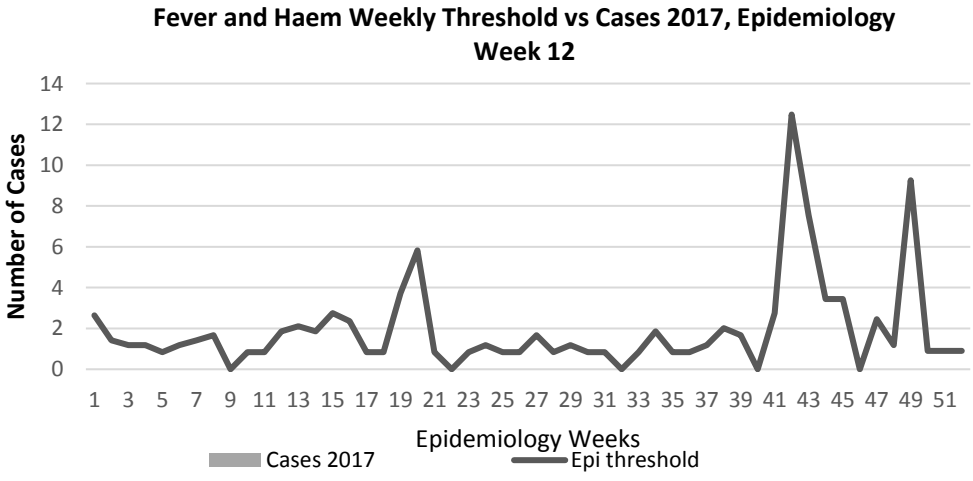
FEVER AND NEUROLOGICAL

Temperature of >380C /100.40F (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 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.



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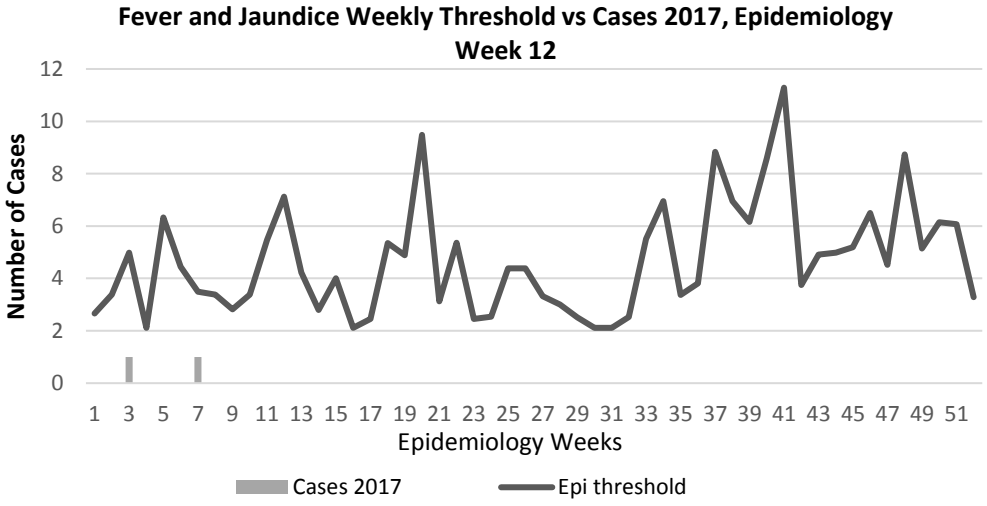
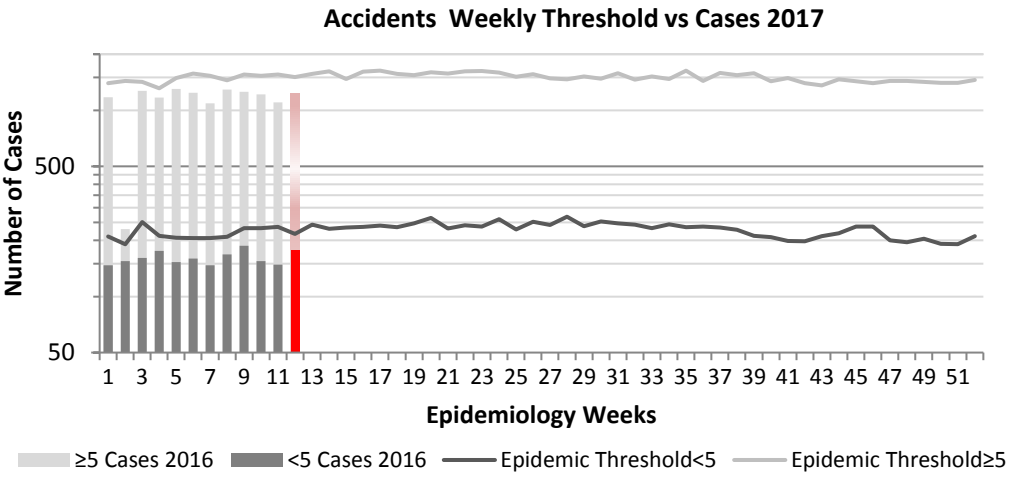
FEVER AND JAUNDICE

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



ACCIDENTS

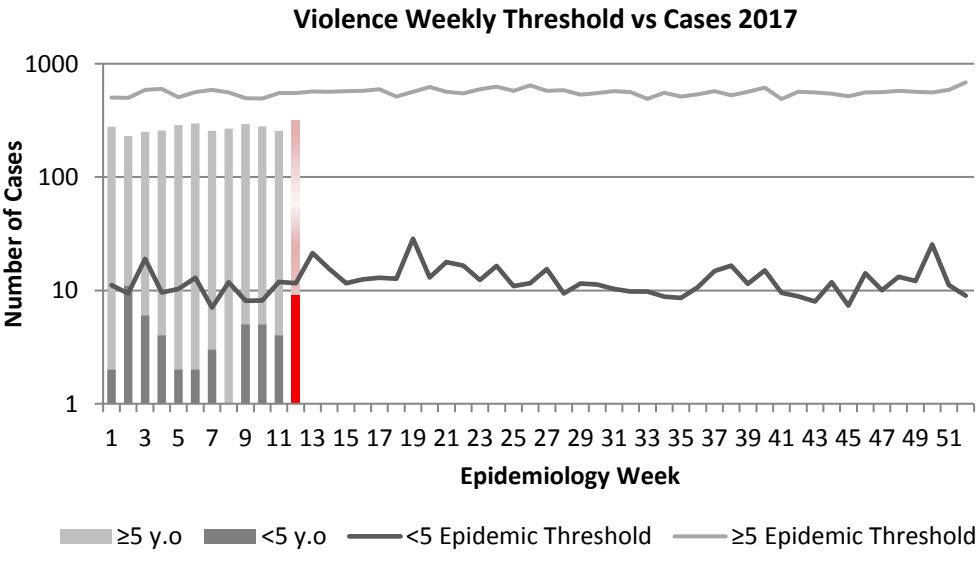
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.



VIOLENCE

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.

The epidemic threshold is used to confirm the emergence of an epidemic so as to step-up appropriate control measures.



CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS	CONFIRMED YTD CURRENT YEAR	CONFIRMED YTD PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	16	39
	Cholera	0	0
	Dengue Hemorrhagic Fever[1]	0	0
	Hansen's Disease (Leprosy)	0	0
	Hepatitis B	2	2
	Hepatitis C	0	0
	HIV/AIDS - See HIV/AIDS National Programme Report		
	Malaria (Imported)	2	1
	Meningitis (Clinically confirmed)	5	15
EXOTIC/ UNUSUAL	Plague	0	0
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis	0	0
	Neonatal Tetanus	0	0
	Typhoid Fever	0	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
	Fever and Rash – Rubella	0	0
	Maternal Deaths[2]	6	5
	Ophthalmia Neonatorum	49	139
	Pertussis-like syndrome	0	0
	Rheumatic Fever	1	1
	Tetanus	0	0
	Tuberculosis	0	8
	Yellow Fever	0	0
	Chikungunya	0	0
	Zika Virus	0	8

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 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.

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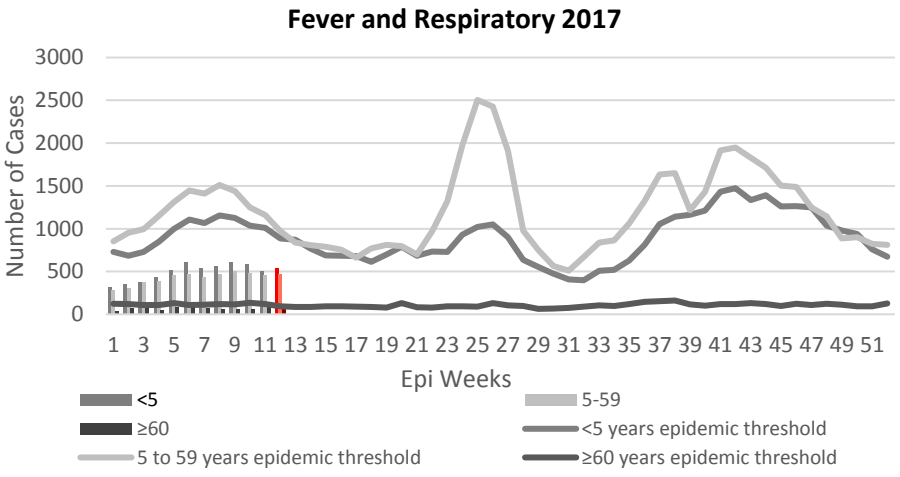
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 12

March 19-25, 2017 Epidemiology Week 12

March 2017		
	EW 12	*YTD*
SARI cases	*9*	*145*
Total Influenza positive Samples	***0***	***5***
Influenza A	***0***	***0***
H3N2	*0*	*0*
H1N1pdm09	*0*	*0*
Not subtyped	*0*	*0*
Influenza B	*0*	***5***
Other	*0*	***0***

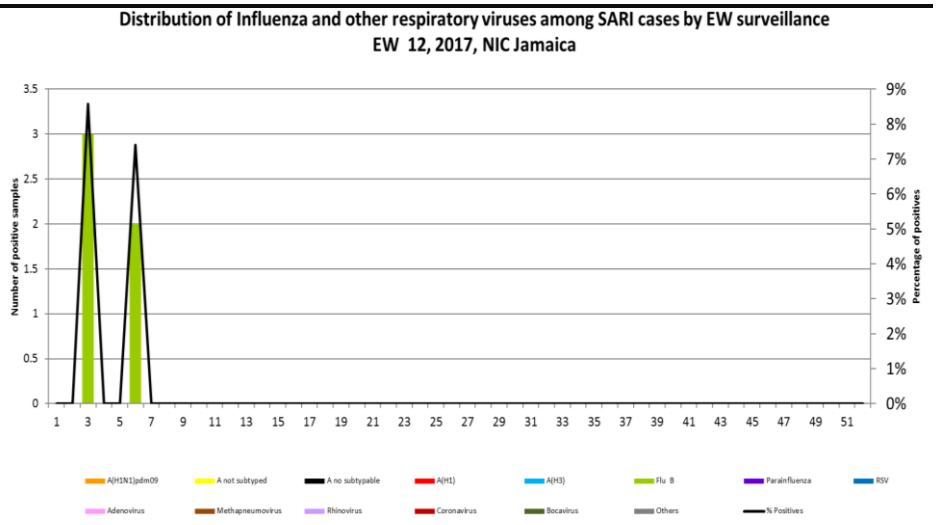


Comments:

During EW 12, SARI activity decreased and remained below the alert threshold and the average epidemic curve.

During EW 12, pneumonia case-counts decreased, and were at same levels observed in 2015 and lower than the prior season.

During EW 12, no influenza activity was reported.



INDICATORS

Burden

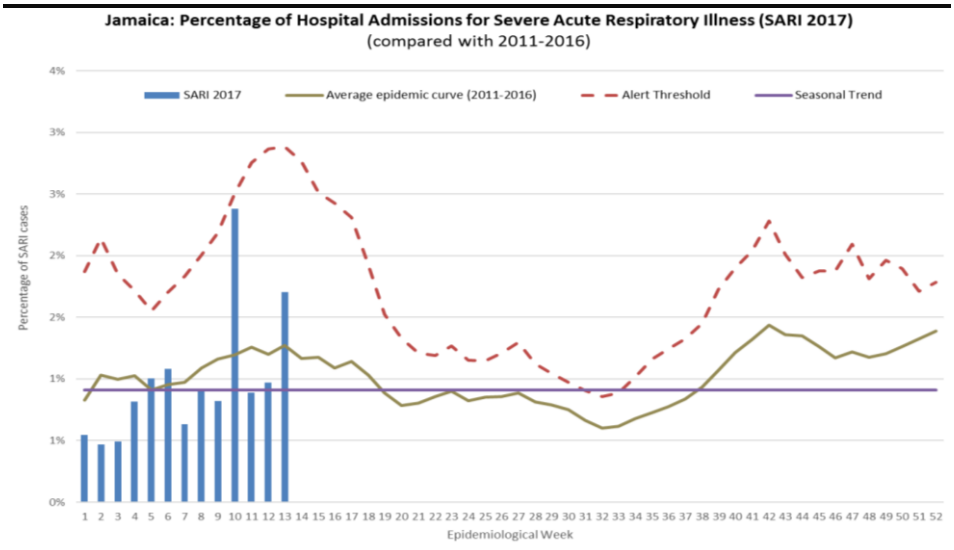
Year to date, respiratory syndromes account for 3.3% of visits to health facilities.

Incidence

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

Prevalence

Not applicable to acute respiratory conditions.



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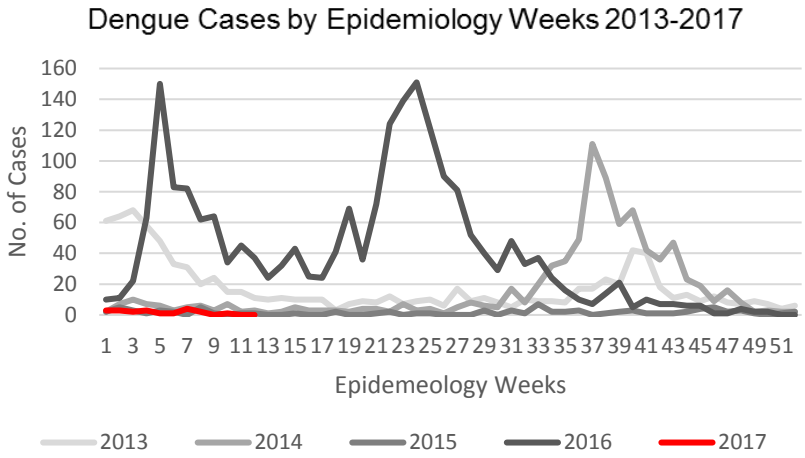
Dengue Bulletin

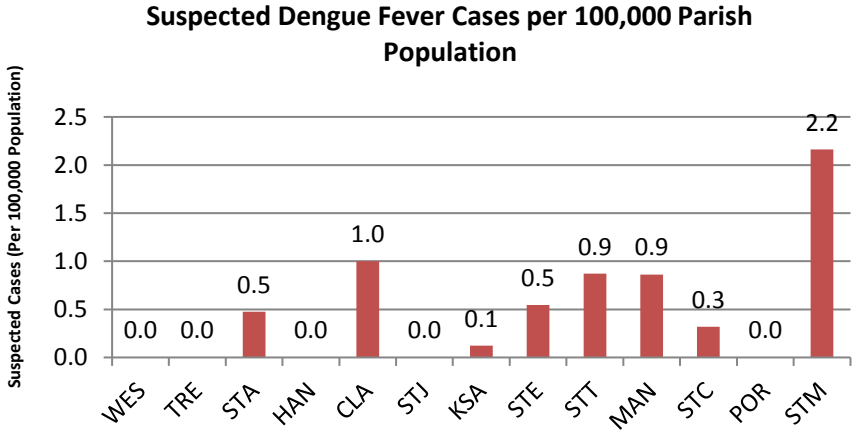
March 19-25, 2017 Epidemiology Week 12



DISTRIBUTION

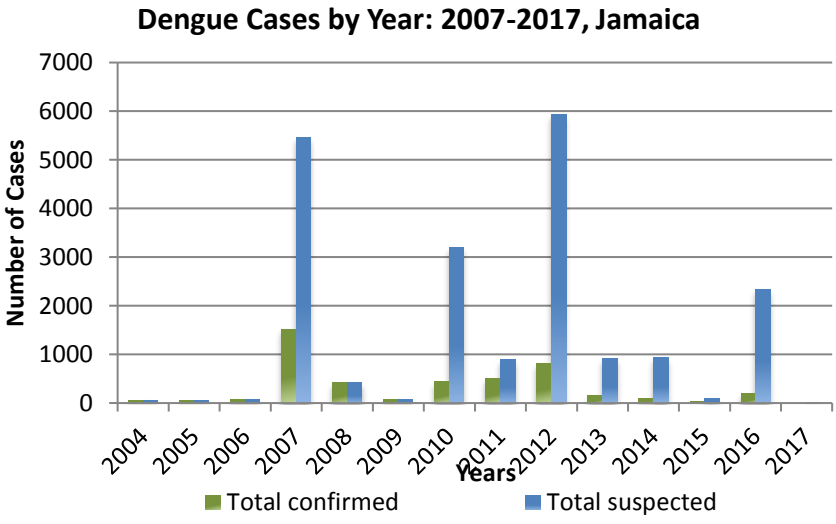
Year-to-Date Suspected Dengue Fever

	M	F	Un-known	Total	%
<1	0	0	0	0	0
1-4	0	0	0	0	0
5-14	4	2	0	6	31.5
15-24	2	2	0	4	21.2
25-44	3	3	1	6	31.5
45-64	2	1	0	3	15.8
≥65	0	0	0	0	0
Unknown	0	0	0	0	0
TOTAL	11	7	1	20	**100**



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

		2017		2016 YTD
		EW 12	YTD	
Total Suspected Dengue Cases		0	20	537
Lab Confirmed Dengue cases		0	0	67
CONFIRMED	DHF/DSS	0	0	2
	Dengue Related Deaths	0	0	0



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Gastroenteritis Bulletin

EW 12

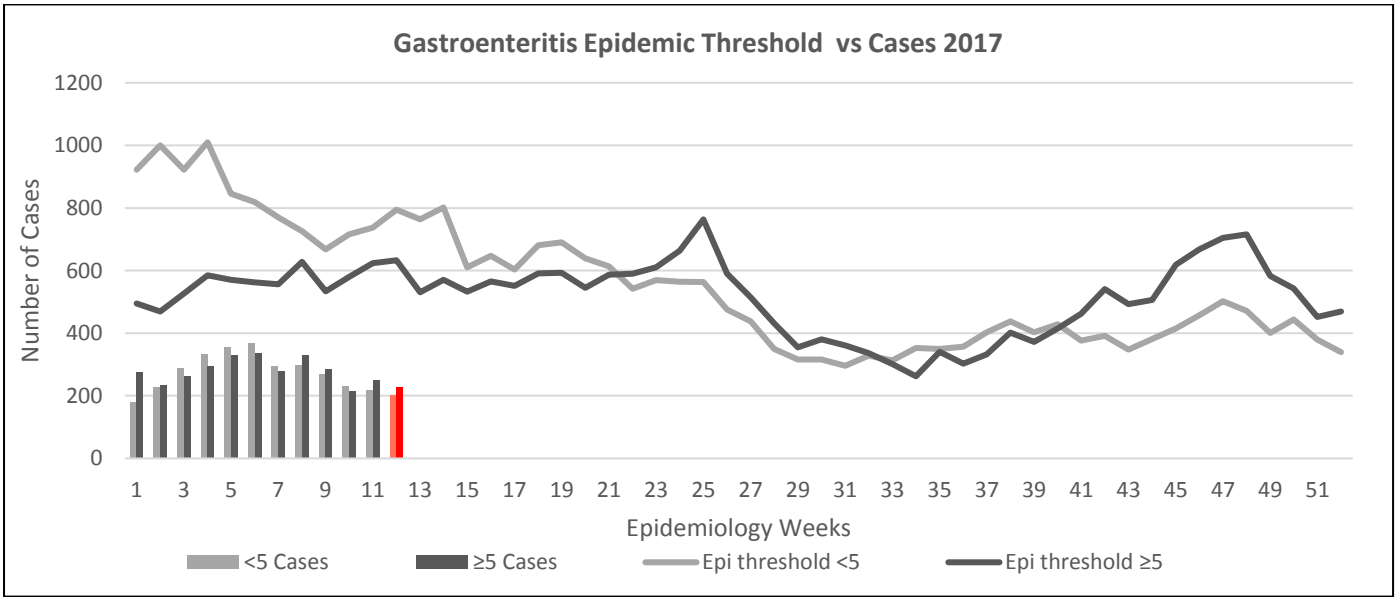
March 19-25, 2017 Epidemiology Week 12

Weekly Breakdown of Gastroenteritis cases

Year	EW 12			YTD		
	<5	≥5	Total	<5	≥5	Total
2017	201	227	428	3,271	3,320	6,591
2016	172	191	363	1,941	2,724	4,665

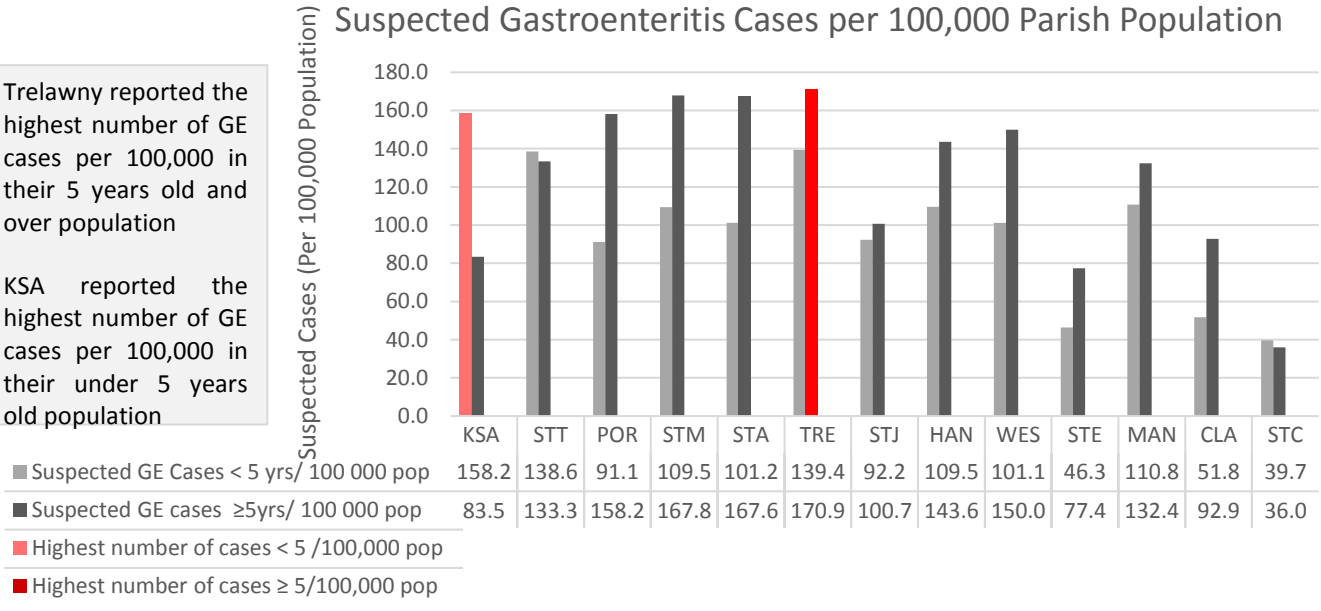
Gastroenteritis:
In Epidemiology Week 12, 2017, the total number of reported GE cases showed an 11% increase compared to EW 12 of the previous year.
The year to date figure showed a 14% increase in cases for the period.

Figure 1: Total Gastroenteritis Cases Reported 2016-2017



Trelawny reported the highest number of GE cases per 100,000 in their 5 years old and over population

KSA reported the highest number of GE cases per 100,000 in their under 5 years old population



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RESEARCH PAPER

HIV Case-Based Surveillance System Audit

S. Whitbourne, Z. Miller

Objectives: Evaluate the Public Health Surveillance System for HIV reporting, to help ensure that the data collected is accurate and useful for understanding epidemiological trends.

Background: Public health programmes focus on the monitoring, control and reduction in the incidence of target diseases, conditions or health events through various interventions and actions. The surveillance system is the primary mechanism through which specific disease information is collected and needs to be periodically assessed.

Methodology: In 2016, an audit was conducted of the HIV Case-Based Surveillance System in Jamaica. Laboratory records were reviewed from seven major health care facilities representing all four Regional Health Authorities. Cases with a positive HIV test in 2014 were noted and comparisons of positive cases were made with the cases that had been reported to the National Surveillance Unit. Qualitative data was also collected from key personnel in the form of questionnaires related to the processes involved in diagnosis, detection, investigation and reporting of HIV positive cases, but this paper will focus on the quantitative findings.

Findings: Preliminary data analysis reveals a high level of underreporting of HIV cases to the national level.

Conclusions: Audits and other forms of assessment need to be conducted on surveillance systems to ensure that the data supporting a public health programme is reliable and accurate, for effective delivery of services to target populations.

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