WEEKLY EPIDEMIOLOGY BULLETIN
NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight
Vaccination Week in the Americas 2017
24-30 April 2017

#VaccinesWork

EPI WEEK 14

SYNDROMES

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CLASS 1 DISEASES

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INFLUENZA

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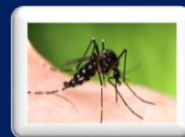
DENGUE FEVER

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World Immunization Week aims to raise awareness about the critical importance of full immunization throughout life, and its role in achieving the 20130 Sustainable Development Goals.

During 2015, 116 million infants worldwide received 3 doses of diphtheria-tetanus-pertussis vaccine, protecting them against infectious diseases that can cause serious illness and disability.

In 2015, about 85% of the world's children received one dose of measles vaccine by their first birthday through routine health services – up from 73% in 2000.

Polio cases have decreased by over 99% since 1988. Today, only 3 countries (Afghanistan, Nigeria and Pakistan) remain polio-endemic, down from more than 125 in 1988.

Thanks to vaccination and surveillance efforts, the Region of the Americas was the first in the world to eliminate smallpox, polio, rubella, congenital rubella syndrome, and measles.

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
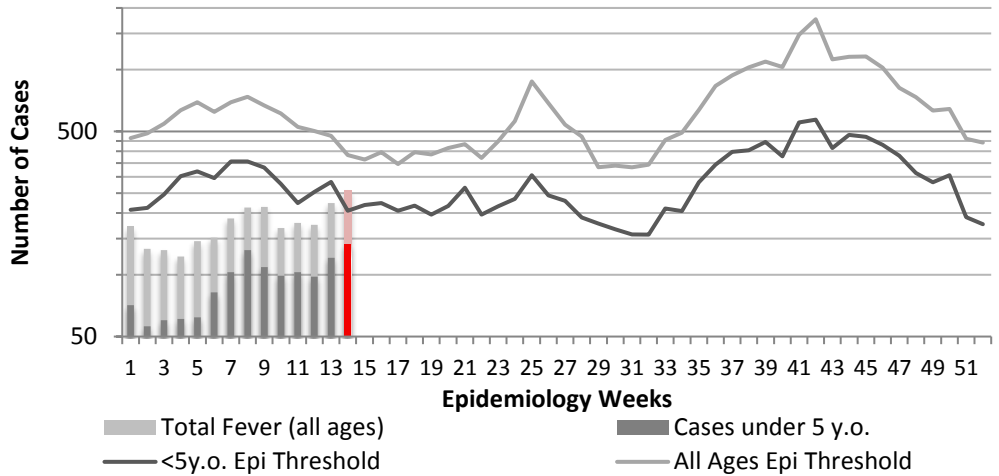
REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

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

🏠 🏥

KEY

RED CURRENT WEEK

**Fever in under 5y.o. and Total Population 2017 vs Epidemic Thresholds, Epidemiology Week 14**

Legend:
- Total Fever (all ages)
- Cases under 5 y.o.
- <5y.o. Epi Threshold
- All Ages Epi Threshold

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 Neurological Symptoms Weekly Threshold vs Cases 2017, Epidemiology Week 14

Legend:
- 2017
- Epi threshold
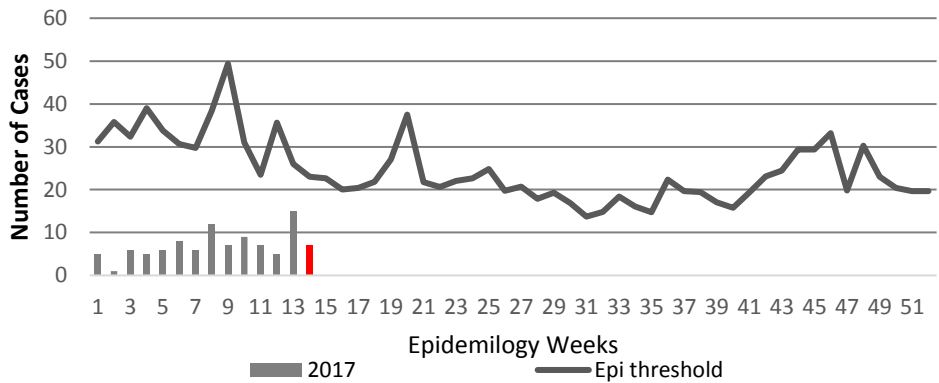
FEVER AND HAEMORRHAGIC

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 Haem Weekly Threshold vs Cases 2017, Epidemiology Week 14
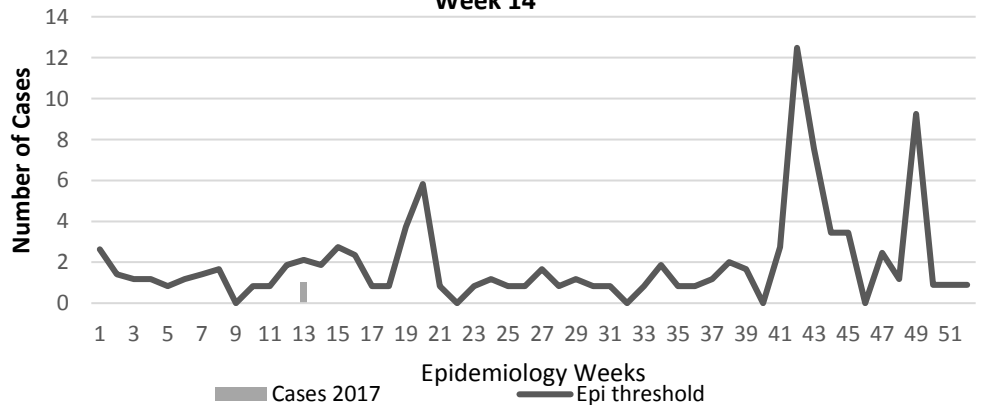
Legend:
- Cases 2017
- Epi threshold

📋 **NOTIFICATIONS-** All clinical sites

🔍 **INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events

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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.

Fever and Jaundice Weekly Threshold vs Cases 2017, Epidemiology Week 14

ACCIDENTS

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

Accidents Weekly Threshold vs Cases 2017
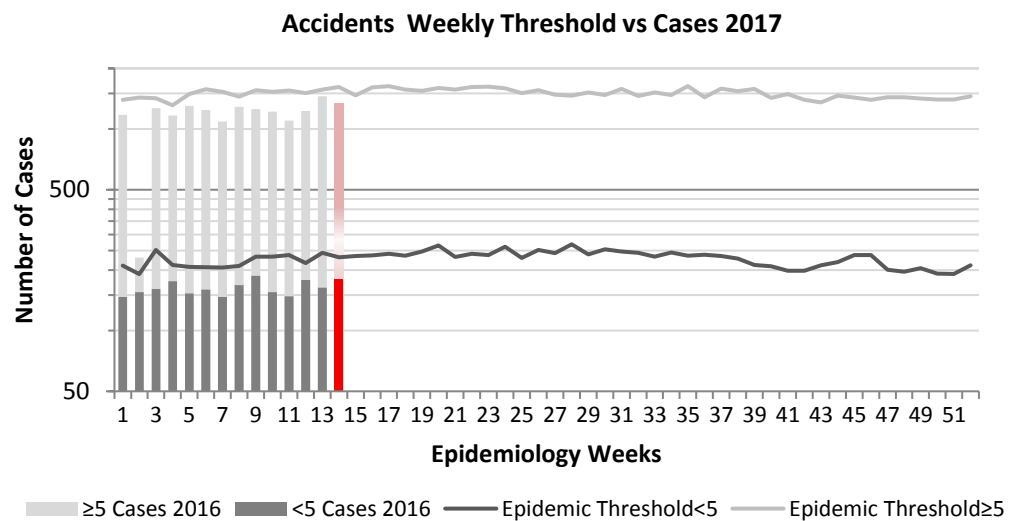
VIOLENCE

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.
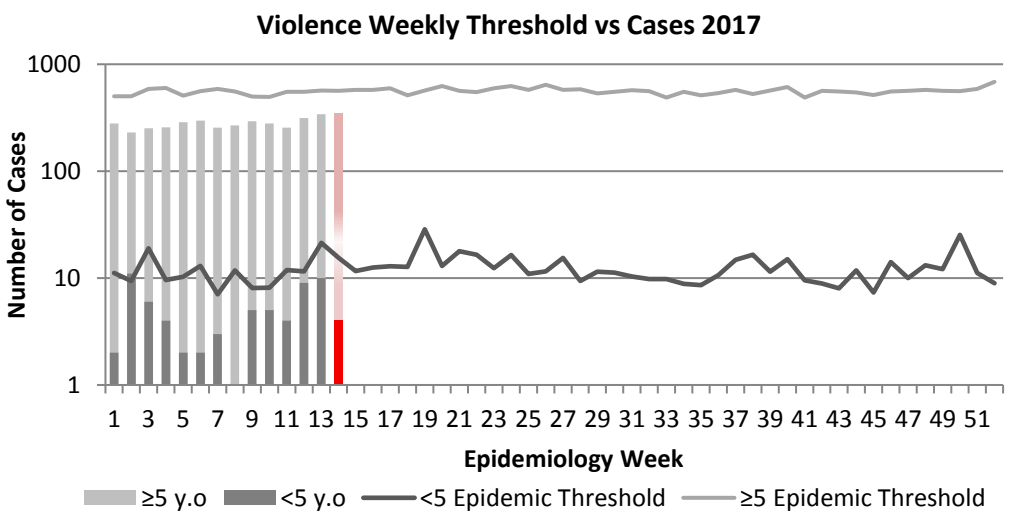
Violence Weekly Threshold vs Cases 2017

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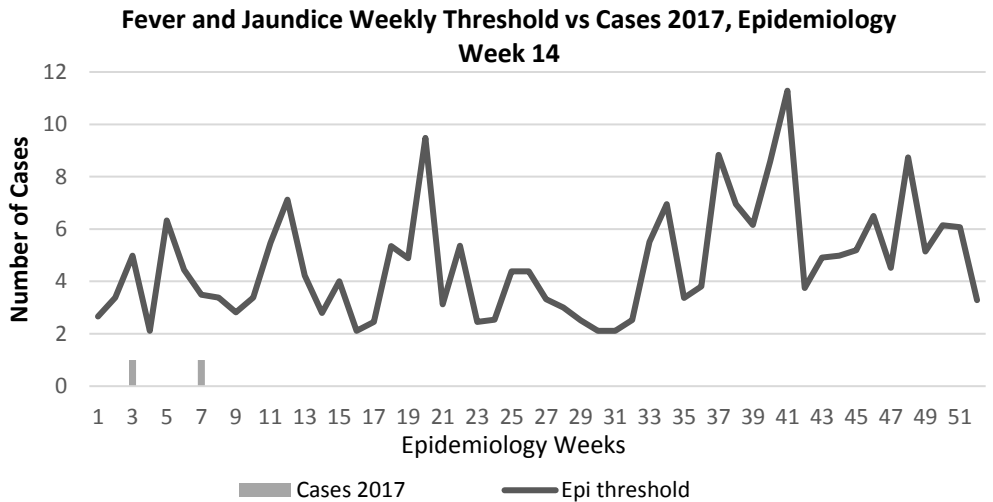
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CLASS ONE NOTIFIABLE EVENTS   Comments

	CLASS 1 EVENTS	CONFIRMED YTD	
		CURRENT YEAR	PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	20	46
	Cholera	0	0
	Dengue Hemorrhagic Fever[1]	0	0
	Hansen's Disease (Leprosy)	0	0
	Hepatitis B	2	7
	Hepatitis C	1	2
	HIV/AIDS - See HIV/AIDS National Programme Report		
	Malaria (Imported)	2	1
	Meningitis (Clinically confirmed)	7	17
EXOTIC/ UNUSUAL	Plague	0	0
HIGH 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	58	142
	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	10

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 14

April 2-8, 2017   Epidemiology Week 14

April 2017	EW 14	YTD
SARI cases	14	177
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

Fever and Respiratory 2017
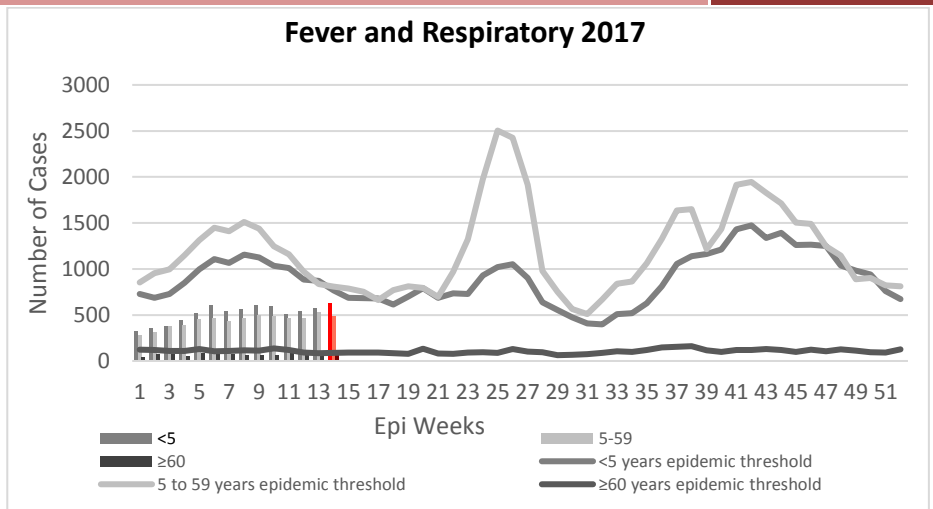
Comments:

During EW 14, SARI activity increased and was above the seasonal threshold and the average epidemic curve, but remained below the alert threshold.

During EW 14, SARI cases were most frequently reported among adults aged from 50 to 64 years of age. During EW 14, pneumonia case-counts slightly decreased (~110 cases in EW 14), and were higher tan the levels observed in 2015 and the prior season.

During EW 13, no influenza activity was reported.

Distribution of Influenza and other respiratory viruses among SARI cases by EW surveillance EW 12, 2017, NIC Jamaica

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.

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2017) (compared with 2011-2016)

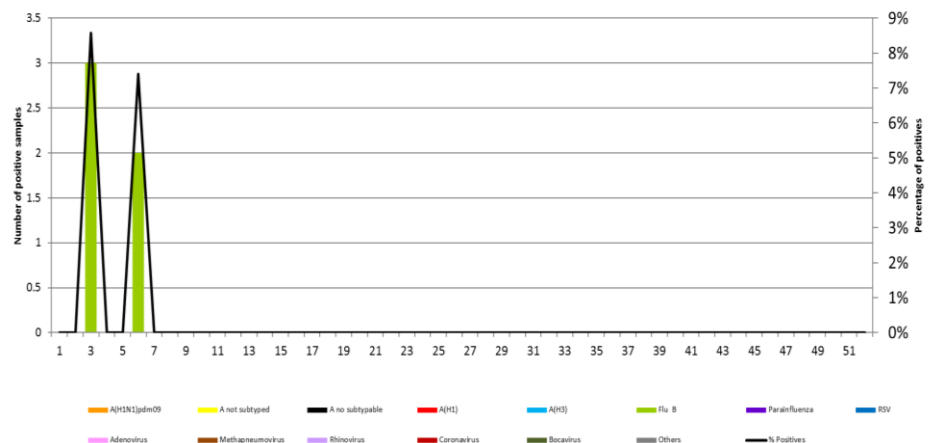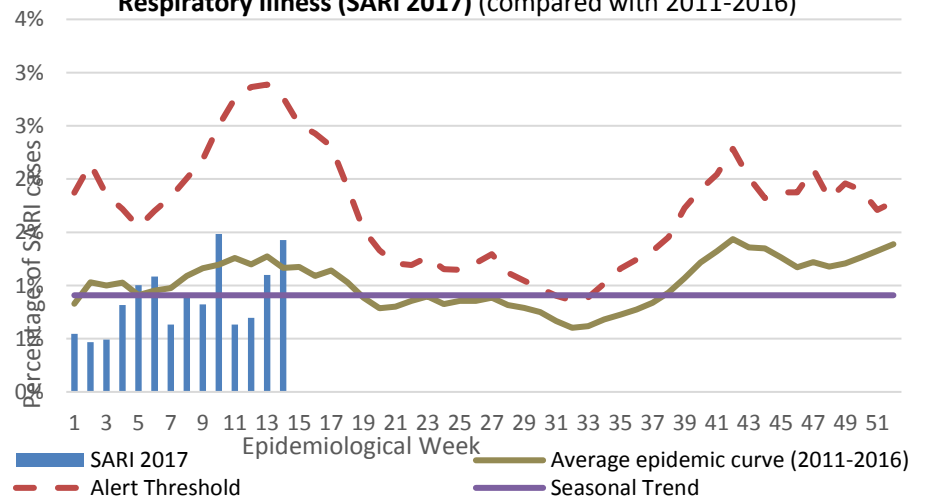|			
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Dengue Bulletin

April 2-8, 2017   Epidemiology Week 14

Dengue Cases by Epidemiology Weeks 2013-2017

2013   2014   2015   2016   2017
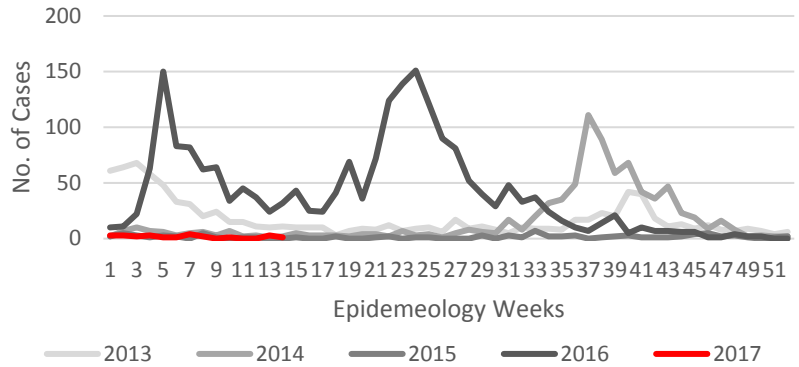
DISTRIBUTION

Year-to-Date Suspected Dengue Fever

	M	F	Un-known	Total	%
<1	1	0	0	1	4.4
1-4	1	1	0	2	8.7
5-14	3	1	0	4	17.4
15-24	2	3	0	5	21.7
25-44	4	4	1	9	39.1
45-64	1	1	0	2	8.7
≥65	0	0	0	0	0
Unknown	0	1	0	0	1
TOTAL	12	11	1	23	100

Suspected Dengue Fever Cases per 100,000 Parish Population
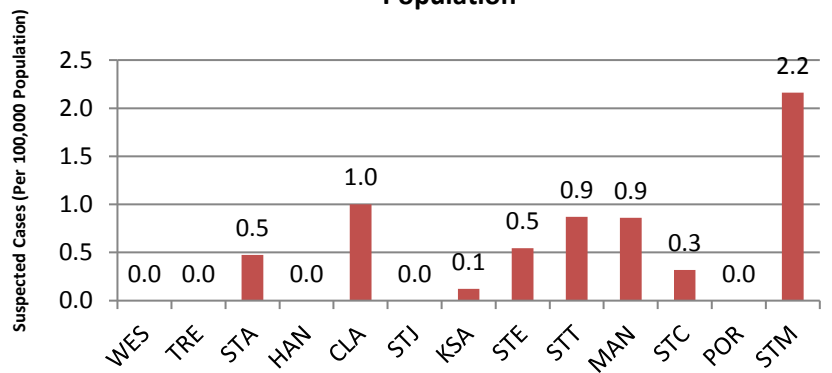
Weekly Breakdown of suspected and confirmed cases of DF,DHF,DSS,DRD

		2017		2016 YTD
		EW 14	YTD	
Total Suspected Dengue Cases		1	24	582
Lab Confirmed Dengue cases		0	0	73
CONFIRMED	DHF/DSS	0	0	3
	Dengue Related Deaths	0	0	0

Dengue Cases by Year: 2007-2017, Jamaica
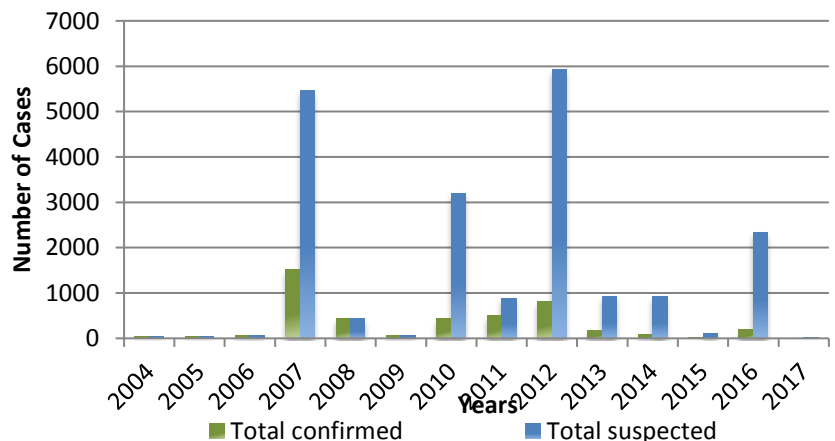
Total confirmed   Total suspected

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# Gastroenteritis Bulletin

EW 14

April 2-8, 2017　　　　　　　　　　　　　Epidemiology Week 14
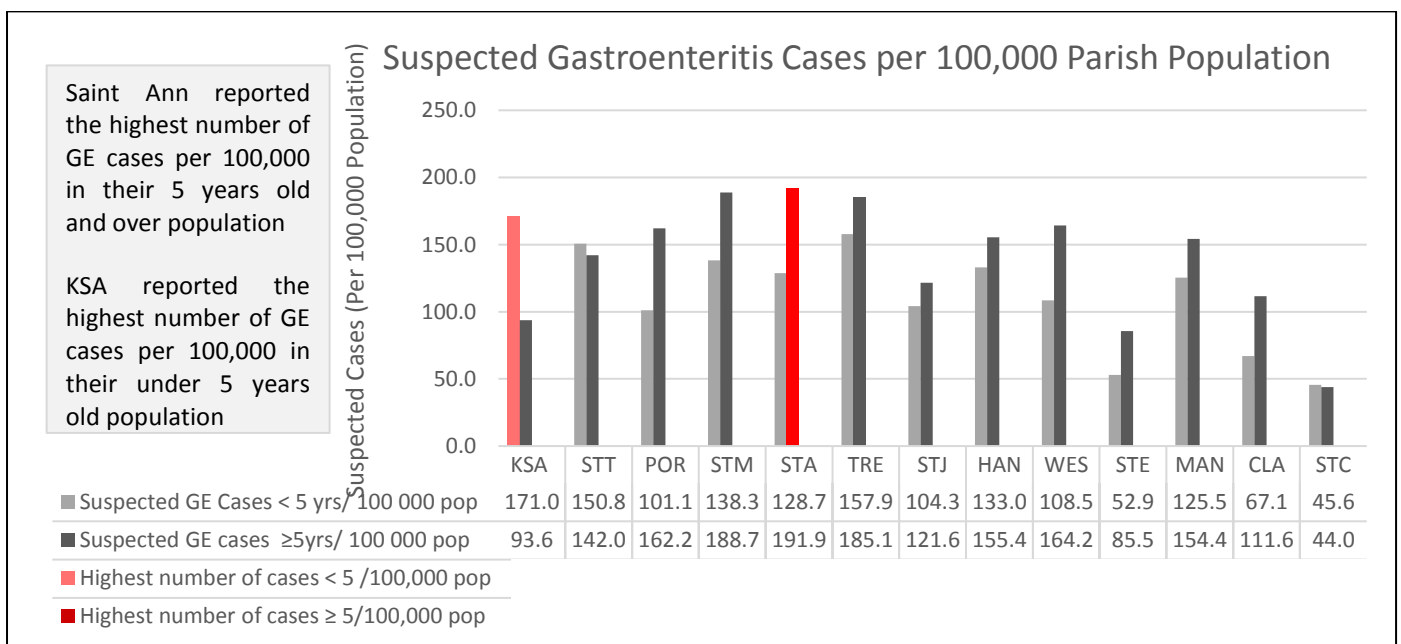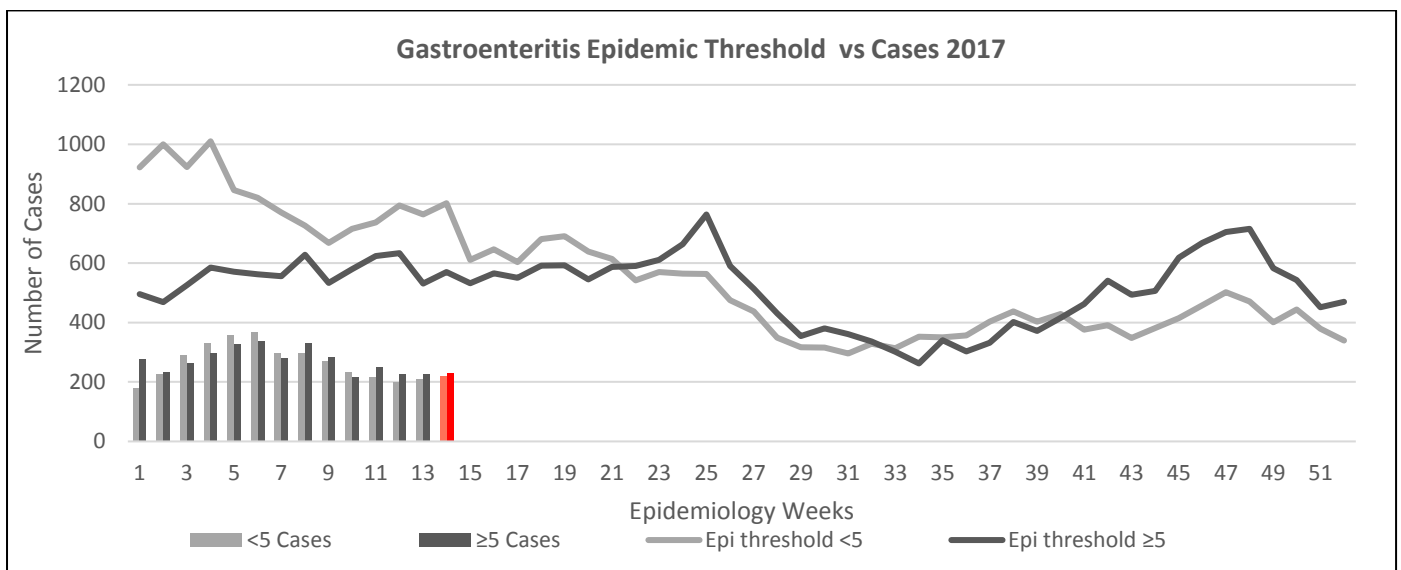
Weekly Breakdown of Gastroenteritis cases

Year	EW 14			YTD		
	<5	≥5	Total	<5	≥5	Total
2017	210	225	435	3,481	3,545	7,026
2016	139	202	341	2,080	2,926	5,006

Gastroenteritis:
In Epidemiology Week 14, 2017, the total number of reported GE cases showed an 21% increase compared to EW 14 of the previous year.
The year to date figure showed a 28% increase in cases for the period.

Figure 1: Total Gastroenteritis Cases Reported 2016-2017

Saint Ann 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

Suspected Gastroenteritis Cases per 100,000 Parish Population

	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC
Suspected GE Cases < 5 yrs/ 100 000 pop	171.0	150.8	101.1	138.3	128.7	157.9	104.3	133.0	108.5	52.9	125.5	67.1	45.6
Suspected GE cases ≥5yrs/ 100 000 pop	93.6	142.0	162.2	188.7	191.9	185.1	121.6	155.4	164.2	85.5	154.4	111.6	44.0

Highest number of cases < 5 /100,000 pop
Highest number of cases ≥ 5/100,000 pop

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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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