Released March 3, 2017 ISSN 0799-3927

Week ending February 12-18, 2017 Epidemiology Week 7

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Weekly Spotlight

Major foodborne illnesses and causes (Part III)

Chemicals:

Chemical contamination can lead to acute poisoning or long-term diseases, such as cancer. Of most concern for health are naturally occurring toxins and environmental pollutants.

- **Naturally occurring toxins** include mycotoxins, marine biotoxins, cyanogenic glycosides and toxins occurring in poisonous mushrooms. Staple foods like corn or cereals can contain high levels of mycotoxins, such as aflatoxin and ochratoxin, produced by mould on grain. A long-term exposure can affect the immune system and normal development, or cause cancer.

Persistent organic pollutants (POPs) are compounds that accumulate in the environment and human body. Known examples are dioxins and polychlorinated biphenyls (PCBs), which are unwanted by-products of industrial processes and waste incineration. They are found worldwide in the environment and accumulate in animal food chains. Dioxins are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and cause cancer.

Heavy metalssuch as lead, cadmium and mercury cause neurological and kidney damage. Contamination by heavy metal in food occurs mainly through pollution of air, water and soil.

The burden of foodborne diseases

The burden of foodborne diseases to public health and welfare and to economy has often been underestimated due to underreporting and difficulty to establish causal relationships between food contamination and resulting illness or death.

The evolving world and food safety

Safe food supplies support national economies, trade and tourism, contribute to food and nutrition security, and underpin sustainable development.

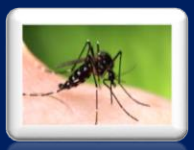
Urbanization and changes in consumer habits, including travel, have increased the number of people buying and eating food prepared in public places. Globalization has triggered growing consumer demand for a wider variety of foods, resulting in an increasingly complex and longer global food chain.

As the world's population grows, the intensification and industrialization of agriculture and animal production to meet increasing demand for food creates both opportunities and challenges for food safety.

These challenges put greater responsibility on food producers and handlers to ensure food safety. Local incidents can quickly evolve into international emergencies due to the speed and range of product distribution. Serious foodborne disease outbreaks have occurred on every continent in the past decade, often amplified by globalized trade.

Downloaded from: http://www.who.int/mediacentre/factsheets/fs399/en/

EPI WEEK 7



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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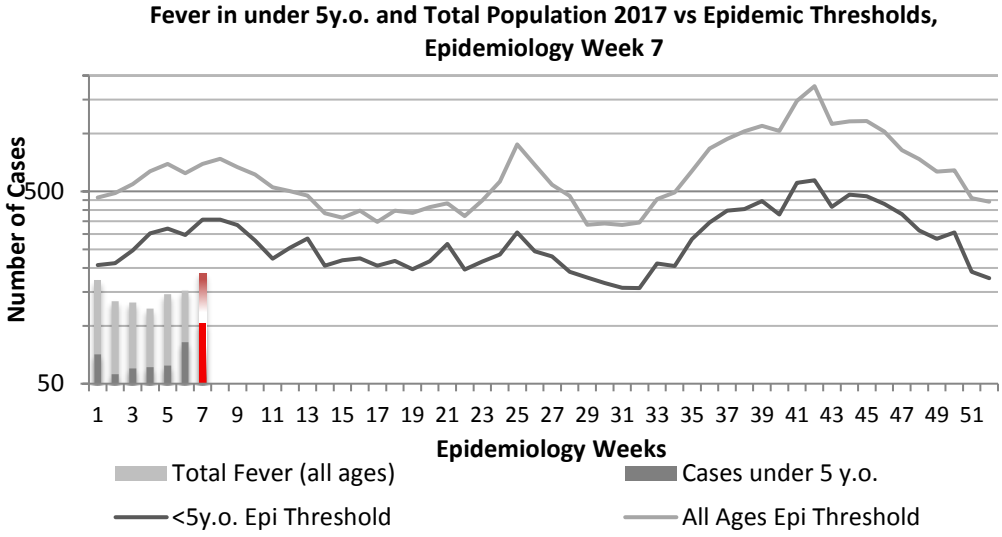
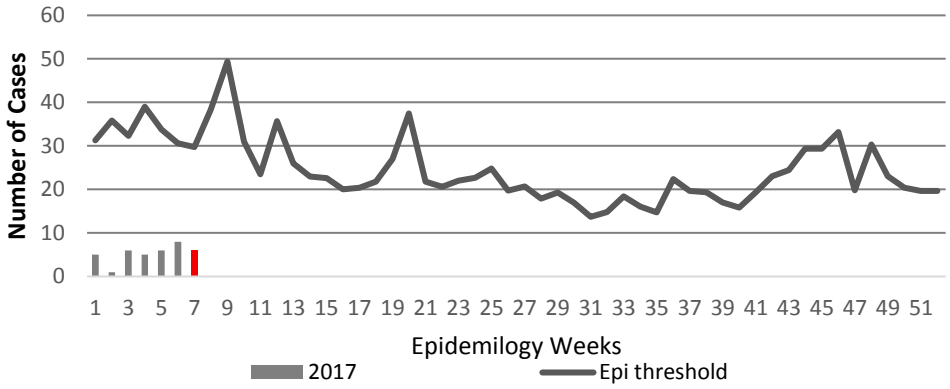
REPORTS FOR SYNDROMIC SURVEILLANCE

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

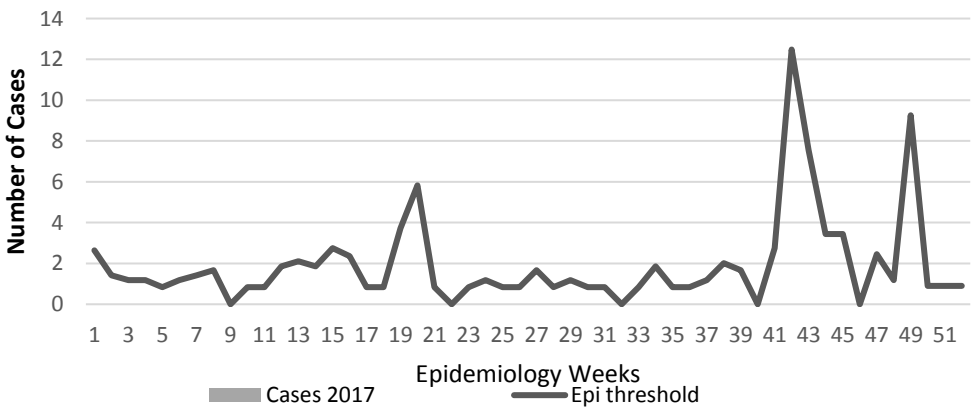
KEY
RED CURRENT WEEK



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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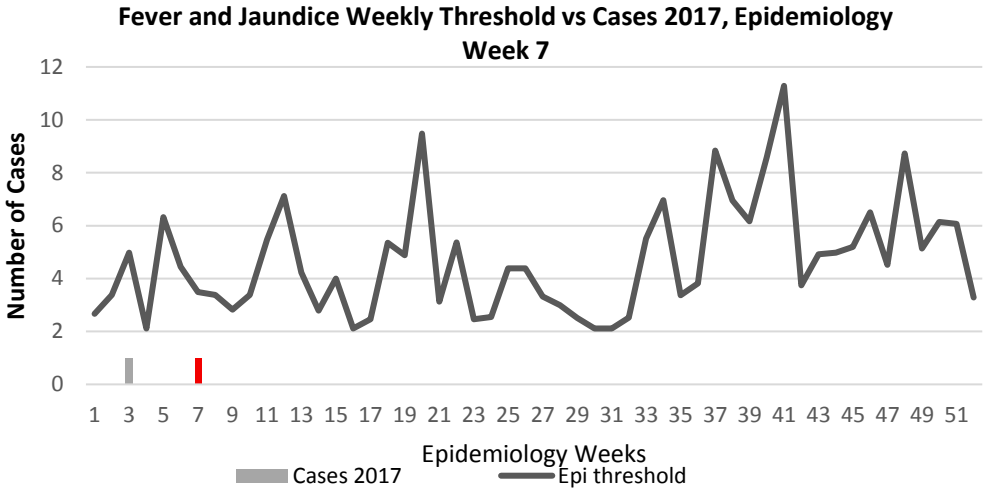
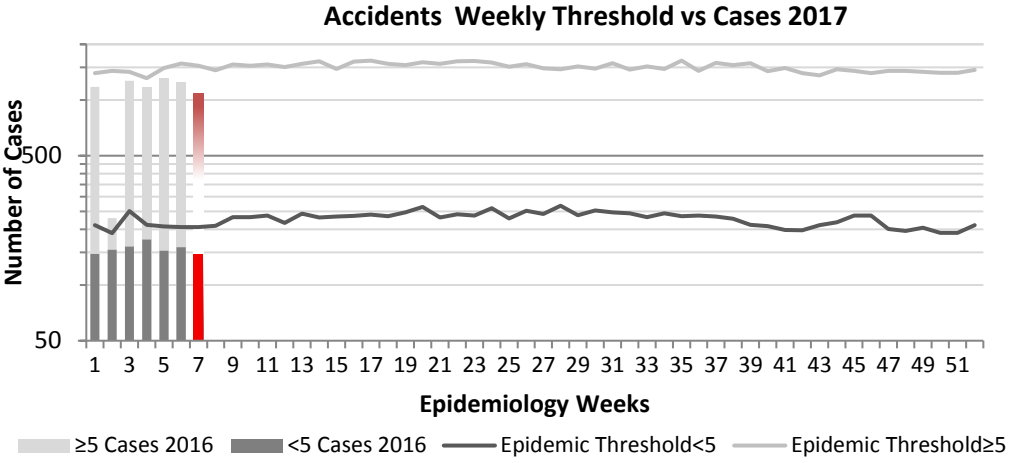
FEVER AND JAUNDICE

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



ACCIDENTS

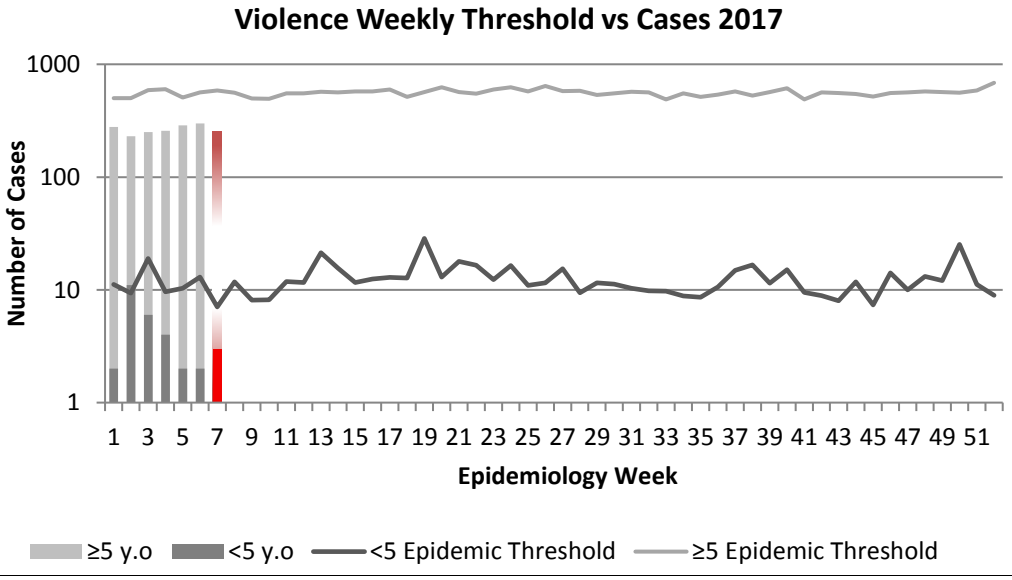
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.



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.



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CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS	CONFIRMED YTD CURRENT YEAR	CONFIRMED YTD PREVIOUS YEAR
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	7	23
	Cholera	0	0
	Dengue Hemorrhagic Fever[1]	0	0
	Hansen's Disease (Leprosy)	0	0
	Hepatitis B	0	0
	Hepatitis C	0	0
	HIV/AIDS - See HIV/AIDS National Programme Report		
	Malaria (Imported)	0	0
	Meningitis (Clinically confirmed)	2	9
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	19	54
	Pertussis-like syndrome	0	0
	Rheumatic Fever	1	1
	Tetanus	0	0
	Tuberculosis	0	0
	Yellow Fever	0	0
	Chikungunya	0	0
	Zika Virus	0	0

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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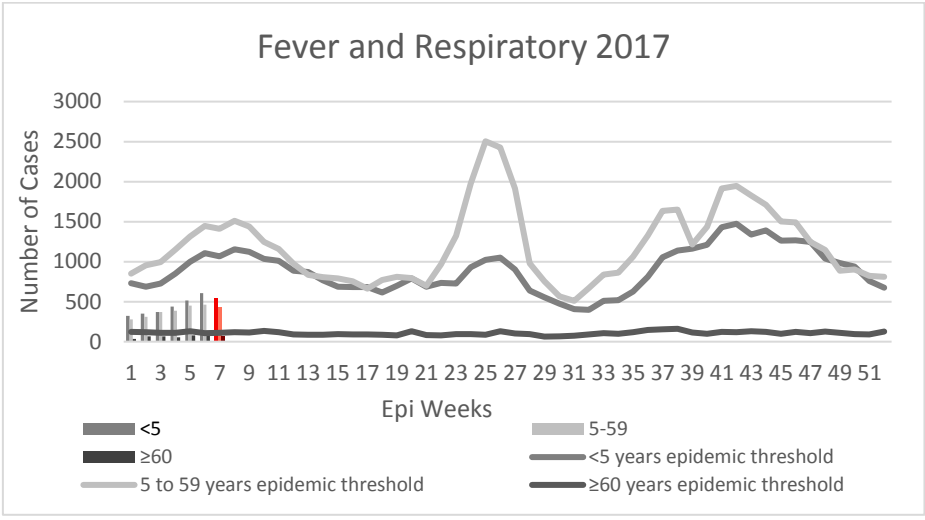
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 7

Feb 12-18, 2017 Epidemiology Week 7

January 2017		
	EW 7	*YTD*
SARI cases	*10*	*77*
Total Influenza positive Samples	***1***	***2***
Influenza A	***0***	***0***
H3N2	*0*	*0*
H1N1pdm09	*0*	*0*
Not subtyped	*0*	*0*
Influenza B	*1*	***2***
Other	*0*	***0***

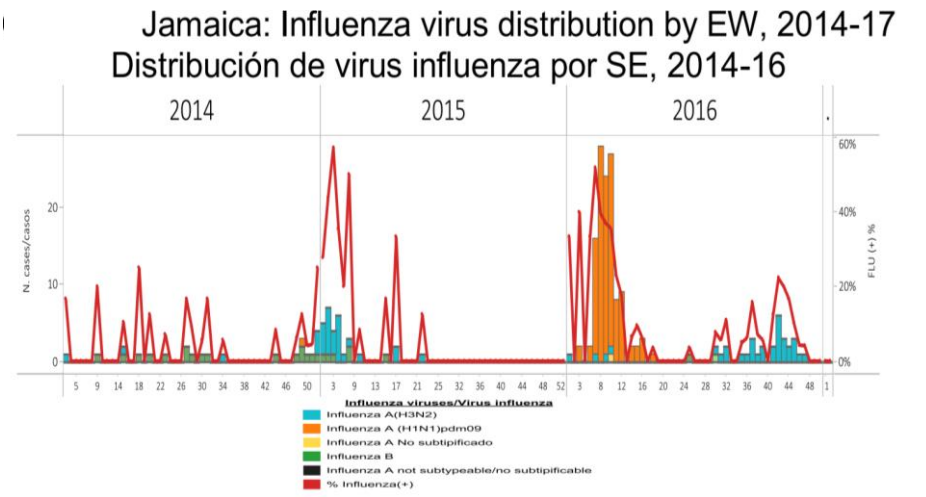


Comments:

During EW 7, SARI activity decreased below the alert threshold, as compared to prior weeks.

During EW 7, SARI cases were most frequently reported among adults aged from 15 to 49 years of age.

During EW 7, pneumonia case-counts decreased (75-87 cases in EW 7), and were at same levels observed in 2016 and 2015, with the highest proportion in Kingston and Saint Andrew.



INDICATORS

Burden

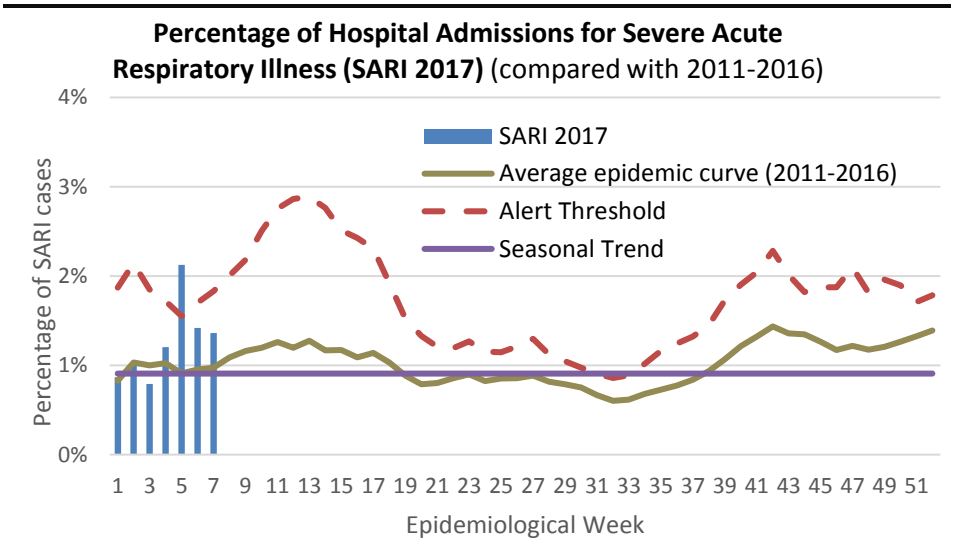
Year to date, respiratory syndromes account for 3.3% of visits to health facilities.

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

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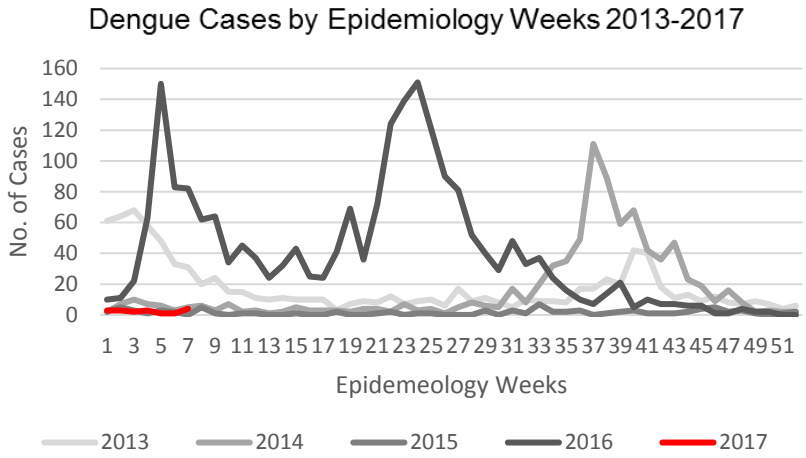
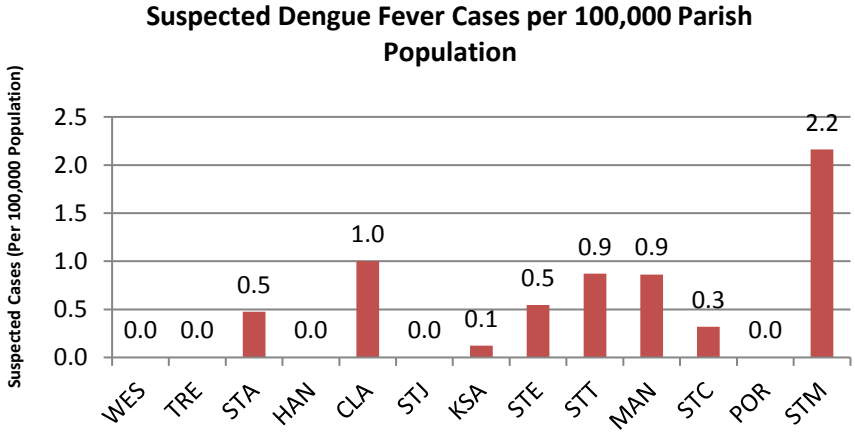


DISTRIBUTION

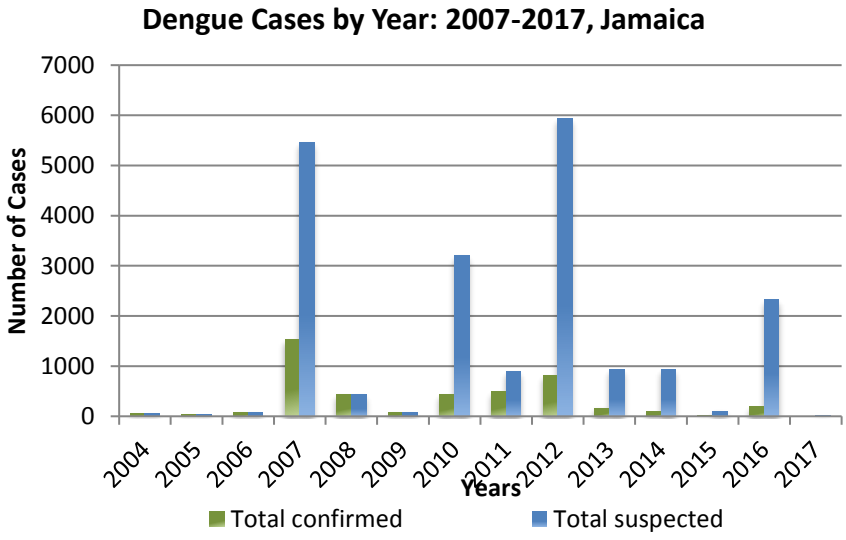
Year-to-Date Suspected Dengue Fever

	M	F	Un-known	Total	%
<1	0	0	0	0	0
1-4	0	0	0	0	0
5-14	4	1	0	5	33
15-24	2	2	0	4	27
25-44	1	1	1	3	20
45-64	2	1	0	3	20
≥65	0	0	0	0	0
Unknown	0	0	0	0	0
TOTAL	9	5	1	15	**100**



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

		2017		2016 YTD
		EW 7	YTD	
Total Suspected Dengue Cases		3	15	358
Lab Confirmed Dengue cases		0	0	37
CONFIRMED	DHF/DSS	0	0	1
	Dengue Related Deaths	0	0	0



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Gastroenteritis Bulletin

EW 7

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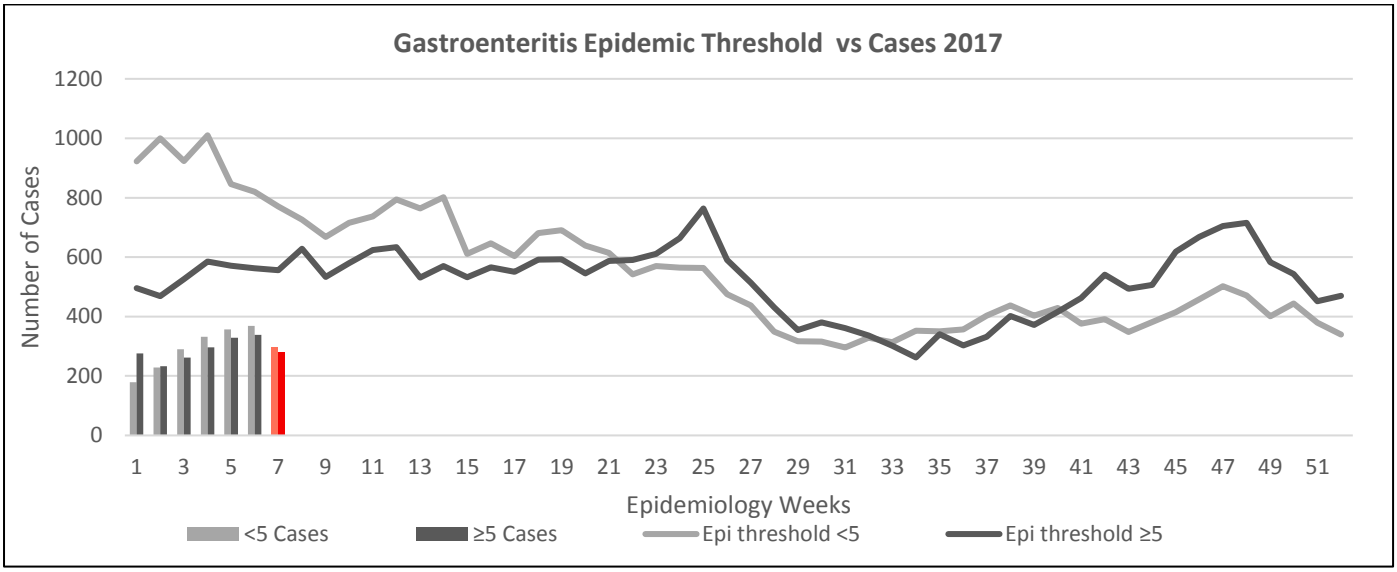
Weekly Breakdown of Gastroenteritis cases

Year	EW 7			YTD		
	<5	≥5	Total	<5	≥5	Total
2017	296	279	575	2,051	2,013	4,064
2016	177	241	418	1,184	1,594	2,778

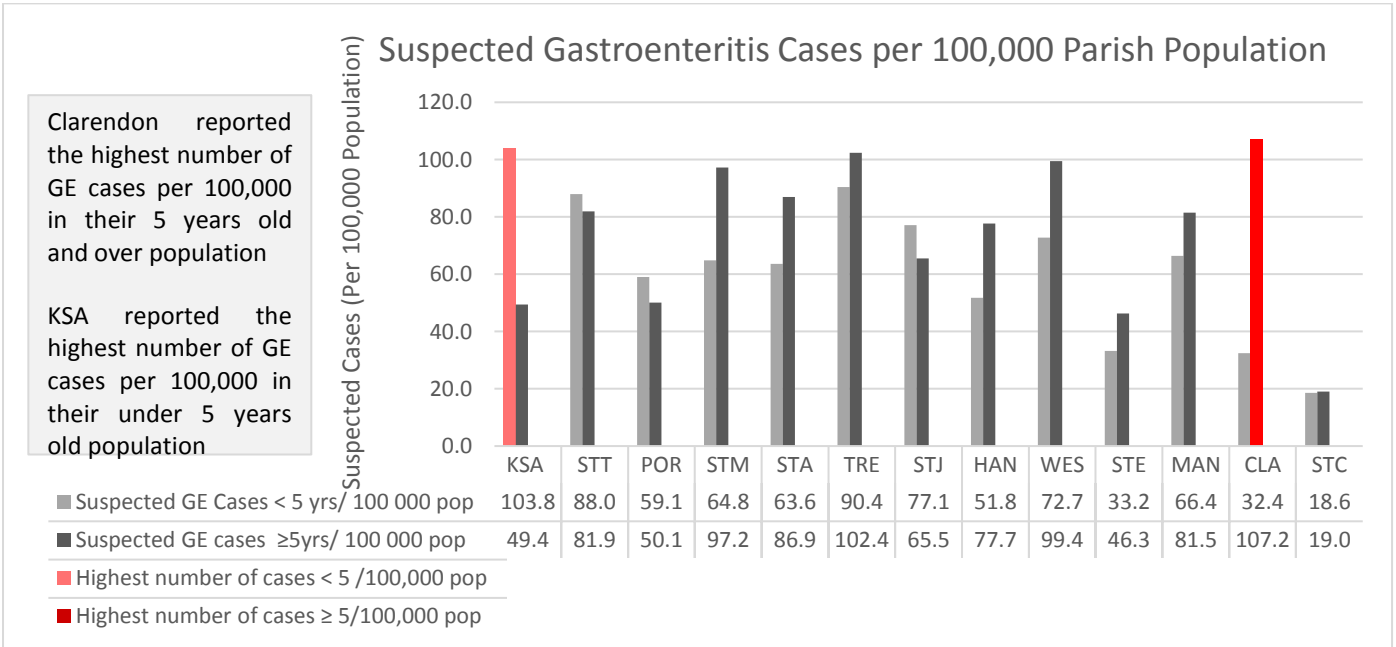
Gastroenteritis:
In Epidemiology Week 7, 2017, the total number of reported GE cases showed a 17.31% increase compared to EW 7 of the previous year.
The year to date figure showed an 23% increase in cases for the period.

Figure 1: Total Gastroenteritis Cases Reported 2016-2017



Clarendon 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



	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC
Suspected GE Cases < 5 yrs/ 100 000 pop	103.8	88.0	59.1	64.8	63.6	90.4	77.1	51.8	72.7	33.2	66.4	32.4	18.6
Suspected GE cases ≥5yrs/ 100 000 pop	49.4	81.9	50.1	97.2	86.9	102.4	65.5	77.7	99.4	46.3	81.5	107.2	19.0

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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