

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH, JAMAICA

Adolescent Health

Coming of Age

The world now has more young people than ever before – of the 7.2 billion people worldwide, over 3 billion are younger than 25 years, making up 42% of the world population. Around 1.2 billion of these young people are adolescents aged between 10 and 19 years.

Adolescence is a critical time of life. It is a time when people become independent individuals, forge new relationships, develop social skills and learn behaviours that will last the rest of their lives. It can also be one of the most challenging periods.

In this turbocharged neurological, physical, and emotional transition from childhood to adulthood, young people face a range of health risks. They are often exposed to harmful products such as tobacco, alcohol and drugs, they face greater risks of violence (including homicide) and road traffic injuries than in childhood, and can experience devastating mental health issues such as **depression**, anxiety, self-harm, substance abuse and addiction to video games, as well as eating disorders and suicide. Young people can also face sexual health issues such as sexually transmitted diseases or teenage pregnancy.

Many of these issues are linked to wider societal determinants and social norms. For example, pressures to conform to ideals about body image, normalization of recreational drinking in media, social exclusion, challenges in accessing support services, coupled with rapid physiological and neurological changes and the urge for exploration and experimentation, can make it hard to cope with the varied challenges that today's youth will almost certainly encounter.

Facts:

- Estimated 1.2 million adolescents died in 2015, over 3000 every day, mostly from preventable or treatable causes.
- Road traffic injuries were the leading cause of death in 2015. Other major causes of adolescent deaths include lower respiratory infections, suicide, diarrhoeal diseases, and drowning.
- Globally, there are 44 births per 1000 to girls aged 15 to 19 per year.
- Half of all mental health disorders in adulthood start by age 14, but most cases are undetected and untreated.

Main health issues include:

- Early pregnancy and childbirth
- HIV
- Other infectious disease
- Mental Health
- Violence
- Alcohol and drugs
- Malnutrition and obesity
- Nutrition
- Tobacco use



Story: Protecting adolescents with HPV vaccine

EPI WEEK 37

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FEVER

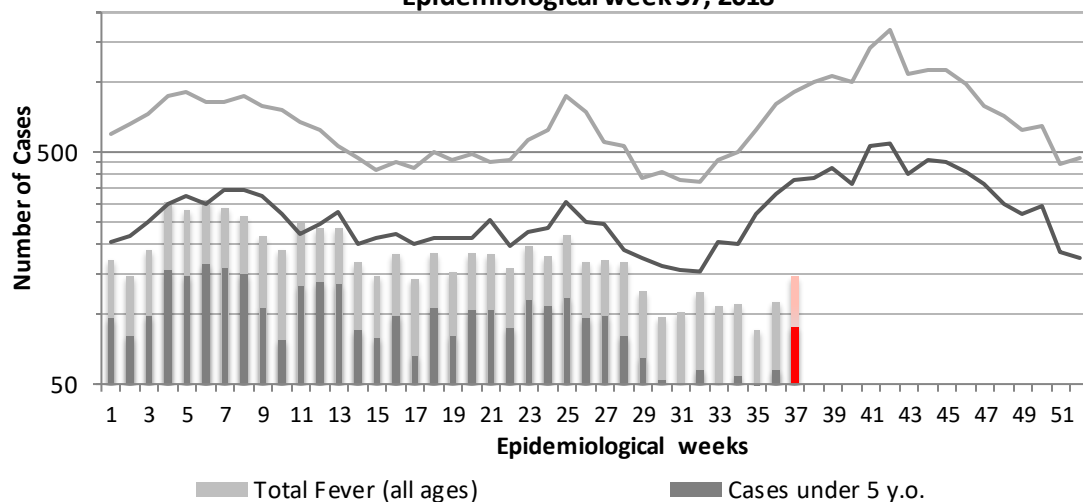
Temperature of $>38^{\circ}\text{C}$ / 100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



KEY

RED CURRENT
WEEK

**Fever in under 5y.o. and Total Fever vs epidemic Thresholds, Jamaica
Epidemiological week 37, 2018**

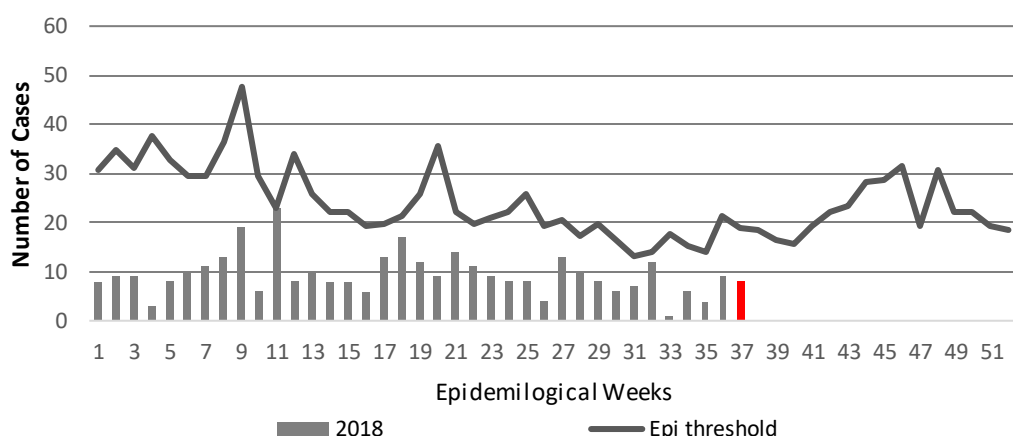


FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}\text{C}$ / 100.4°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).



**Total Fever and Neurological Symptoms vs epidemic threshold Jamaica:
Week 37, 2018**

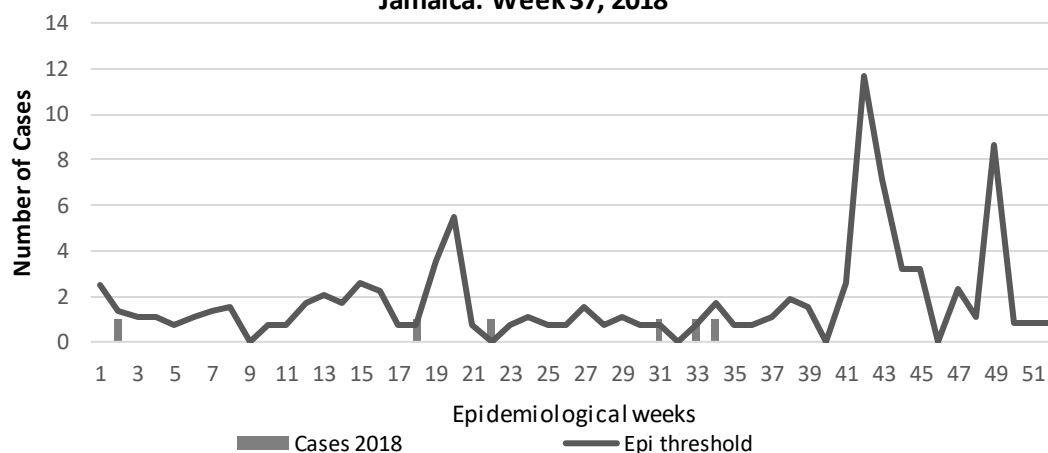


FEVER AND HAEMORRHAGIC

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



**Total Fever and Haemorrhagic Symptoms vs epidemic threshold
Jamaica: Week 37, 2018**



2 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

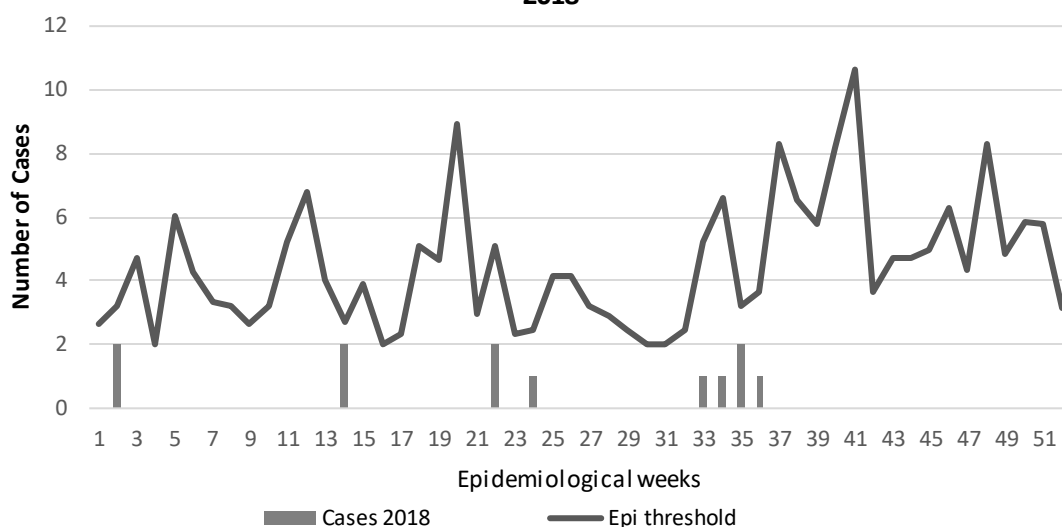
FEVER AND JAUNDICE

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

The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.



Total Fever and Jaundice vs epidemic threshold, Jamaica: Week 37, 2018

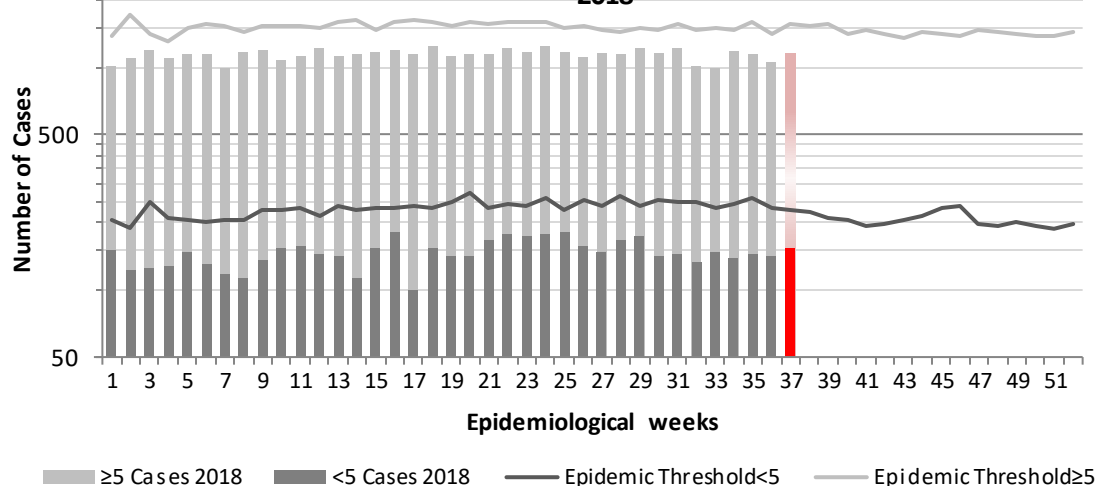
**ACCIDENTS**

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

KEY
RED **CURRENT**
WEEK



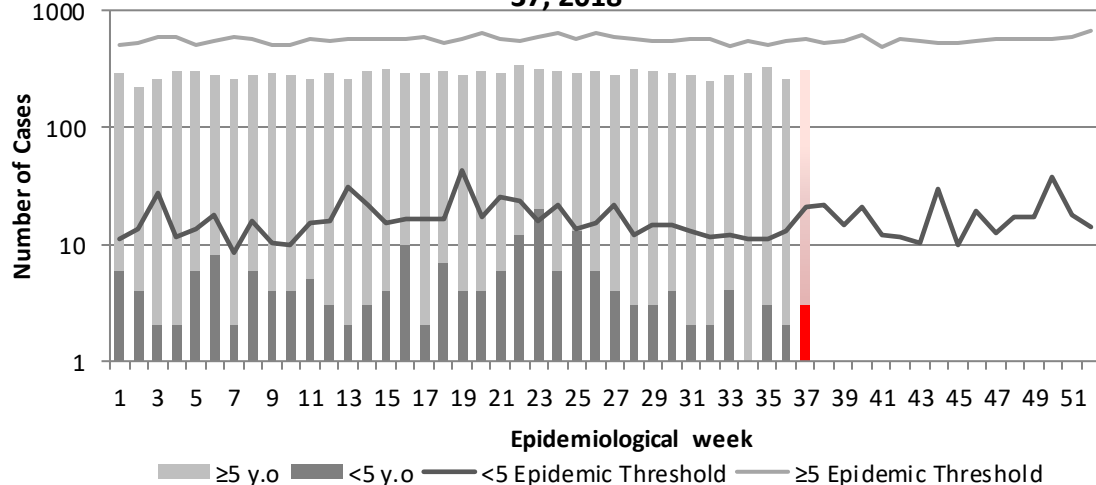
Accidents by age group versus epidemic thresholds, Jamaica: Week 37, 2018

**VIOLENCE**

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



Violence by age group versus epidemic thresholds, Jamaica: Week 37, 2018



3 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

CLASS ONE NOTIFIABLE EVENTS

Comments

			CONFIRMED YTD		
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL/INTERNATIONAL INTEREST	Accidental Poisoning ¹		(314) 111	(381) 150	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.
	Cholera		0	0	
	Dengue Hemorrhagic Fever ²		0	3	
	Hansen's Disease (Leprosy)		0	2	
	Hepatitis B		34	33	
	Hepatitis C		5	8	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		2	0	
	Meningitis (Clinically confirmed)		34	83	
EXOTIC/ UNUSUAL	Plague		0	0	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0	
	Neonatal Tetanus		0	0	
	Typhoid Fever		0	0	
	Meningitis H/Flu		0	0	
SPECIAL PROGRAMMES	AFP/Polio		0	0	¹ Numbers in brackets indicate combined suspected and confirmed Accidental Poisoning cases ² Dengue Hemorrhagic Fever data include Dengue related deaths; ³ Figures include all deaths associated with pregnancy reported for the period. ⁴ CHIKV IgM positive cases
	Congenital Rubella Syndrome		0	0	
	Congenital Syphilis		0	0	
	Fever and Rash	Measles	0	0	
		Rubella	0	0	
	Maternal Deaths ³		44	35	
	Ophthalmia Neonatorum		231	220	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		25	80	
	Yellow Fever		0	0	
	Chikungunya ⁴		10	0	NA- Not Available
	Zika Virus		0	0	



4 NOTIFICATIONS- All clinical sites



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NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

September 9-15, 2018

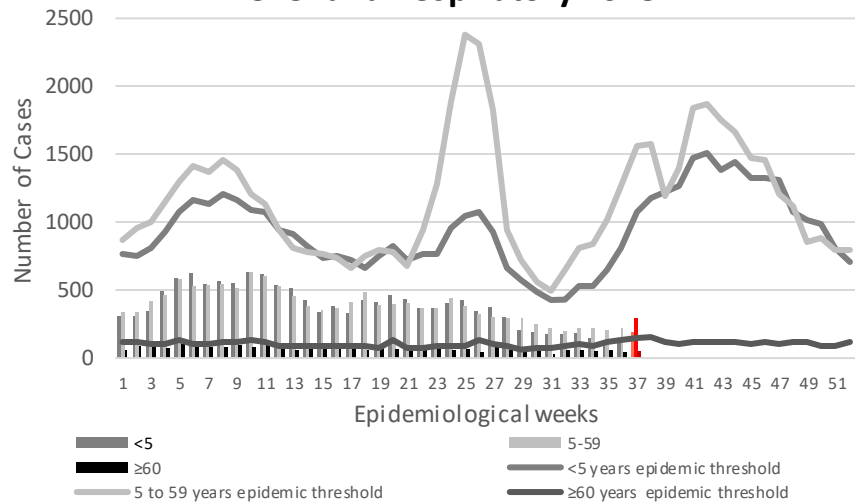
Epidemiological Week 37

EW 37

September 2018

	<i>EW 37</i>	<i>YTD</i>
SARI cases	3	237
Total Influenza positive Samples	0	168
Influenza A	0	139
H3N2	0	65
H1N1pdm09	0	74
Not subtyped	0	1
Influenza B	0	29
Parainfluenza	0	7

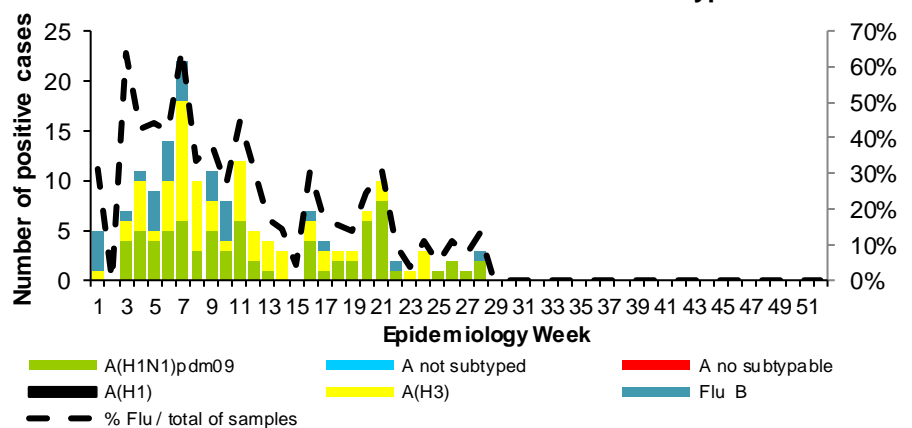
Fever and Respiratory 2018



Comments:

During EW 37, SARI activity remained below the seasonal threshold, similar to the previous seasons for the same period. Decreased influenza activity was reported; with influenza A(H1N1)pdm09 predominating in previous weeks

Distribution of influenza and subtype

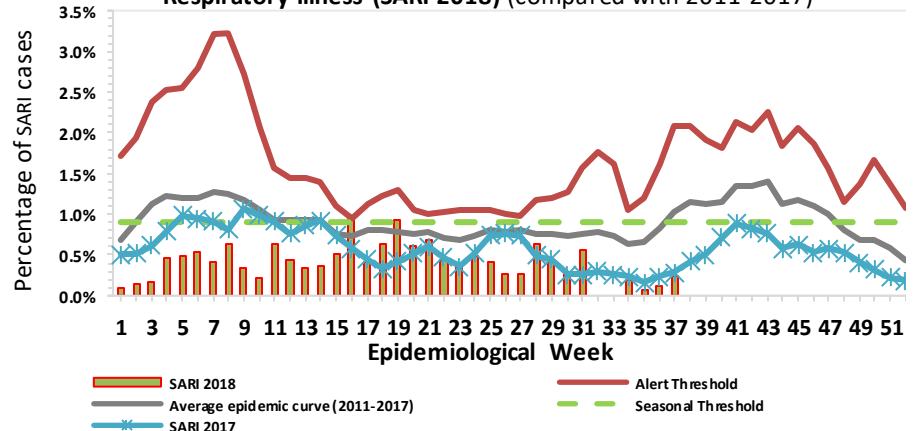


GLOBAL AND REGIONAL UPDATES

Worldwide: Seasonal influenza subtype A accounted for the majority of influenza detections.

Caribbean: Influenza virus activity slightly increased, and low RSV activity was reported throughout most of the sub-region. In Jamaica, influenza activity decreased, with influenza A(H1N1)pdm09 and A(H3N2) co-circulating.

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2018) (compared with 2011-2017)



5 NOTIFICATIONS-
All clinical sites



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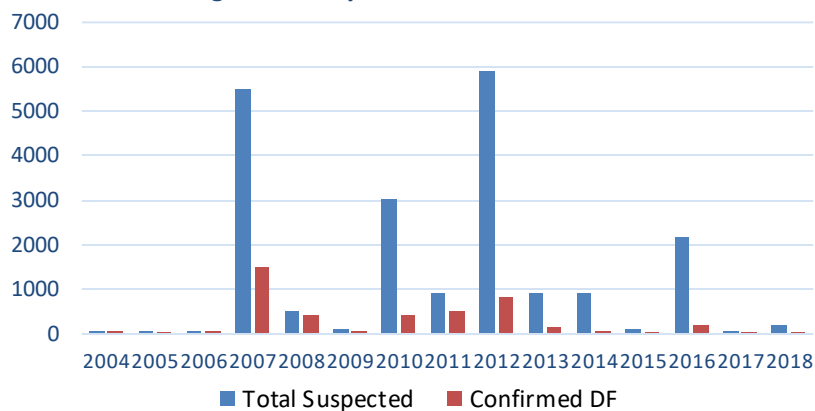
Dengue Bulletin

September 9-15, 2018

Epidemiological Week 37



Dengue Cases by Year: 2007-2018, Jamaica



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

		2018		2017 YTD
		EW 37	YTD	
Total Suspected Dengue Cases		10	250	99
Lab Confirmed Dengue cases		0	1	1
CONFIRMED	*DHF/DSS	0	0	0
	Dengue Related Deaths	0	0	0

*DHF/DSS: Dengue Haemorrhagic Fever/ Dengue Shock Syndrome

Points to note:

- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

DENGUE FEVER

Symptoms

- High Fever
- Headache
- Nausea
- Stomach Ache
- Vomiting
- Muscle Pain
- Rashes
- Diarrhea
- Mild Bleeding gums

Treatment

- There is no specific treatment for dengue or dengue hemorrhagic fever. Only symptomatic treatment is given.

Diagnoses

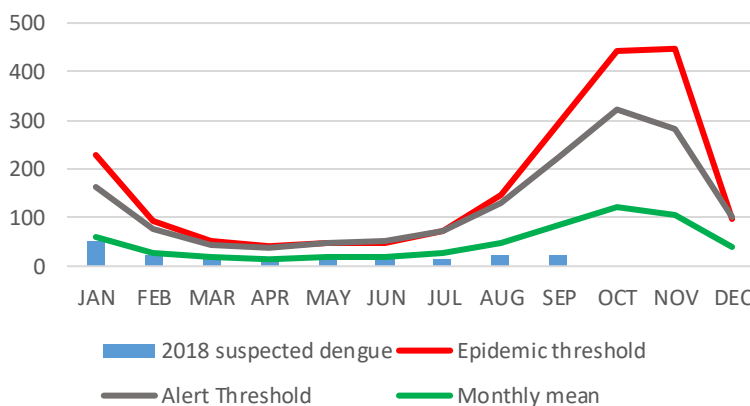
- Antibody detection
- Antigen detection
- RNA detection
- Viral isolation

Prevention

- Cover containers
- Use mosquito nets, sprays.
- Wear full sleeves
- Fumigation



Suspected dengue cases for 2018 versus monthly mean, alert, and epidemic thresholds



6 NOTIFICATIONS-
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Gastroenteritis Bulletin

September 9-15, 2018

Epidemiological Week 37

EW
37

Weekly Breakdown of Gastroenteritis cases

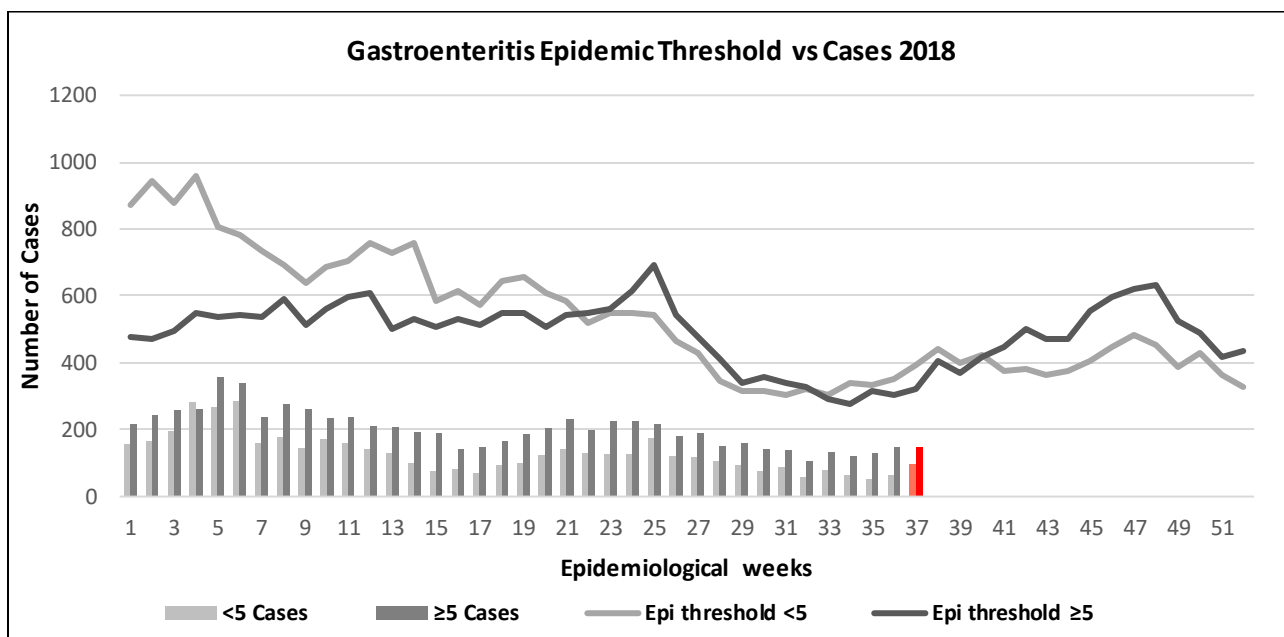
Year	EW 37			YTD		
	<5	≥5	Total	<5	≥5	Total
2018	98	149	247	4,847	7,471	12,318
2017	58	140	198	6,280	7,822	14,102

Gastroenteritis:

In epidemiological week 37, 2018, the total number of reported GE cases showed a 19.8% increase compared to EW 37 of the previous year. The year to date figures showed a 14.5% decrease in cases for the period.



Figure 1: Total Gastroenteritis Cases Reported 2017-2018



Total number of GE cases per parish for Week 37, 2018

Parishes	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC
<5	1588	125	85	323	507	290	311	203	202	175	452	305	281
≥5	1256	255	138	586	957	491	683	298	393	300	805	634	675



7 NOTIFICATIONS-
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RESEARCH PAPER

Measles Rapid Coverage Survey in Jamaican Schools 2015

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¹Ministry of Health, Kingston, Jamaica

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Abstract

Objective: The aim of the survey was to determine the success of the Measles Prevention Campaign 2015.

Design and Methods: A school-based survey was conducted targeting children aged 1-6 years. The study employed a two stage design in which Early Childhood Institutions (ECI) and Primary / Preparatory / All-Age (PPA) schools were randomly selected within each parish, after which ten students were randomly selected from each institution. Seven hundred and fifty (750) students from seventy-five schools were targeted. Immunization teams located within parishes visited schools to obtain dates of MMR1 and MMR2 vaccinations for each child using a standard survey tool. Coverage was calculated after adjusting for “card not seen” and migration out of parish.

Results: Data on 741 students from 75 schools were used for analysis. Jamaica’s MMR1 coverage moved from 99% to 100% while MMR2 coverage increased by 40% from 58% to 98% during the campaign and in mop-up activities.

Conclusion: The campaign was successful. Jamaica’s MMR1 coverage increased from 99% to 100% and MMR2 coverage increased by 40% from 58% to 98%. The improvement in MMR2 coverage was a result of both the campaign and mop-up exercise. Consequently, the post campaign MMR2 coverage rate could be 94% (not considering mop-up) to 98%.

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8 NOTIFICATIONS-
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