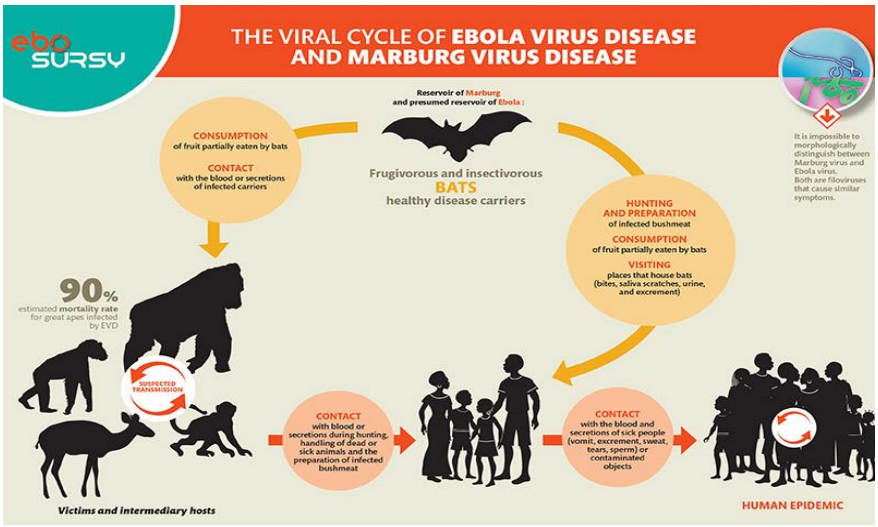
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Biological Weapons: Series 3 of 10: Filoviruses

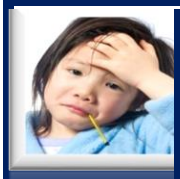
Filovirus history: The first Filovirus was recognized in 1967 when a number of laboratory workers in Germany and Yugoslavia, who were handling tissues from green monkeys, developed hemorrhagic fever. A total of 31 cases and 7 deaths were associated with these outbreaks. The virus was named after Marburg, Germany, the site of one of the outbreaks. In addition to the 31 reported cases, an additional primary case was retrospectively serologically diagnosed. After this initial outbreak, the virus disappeared. It did not reemerge until 1975, when a traveler, most likely exposed in Zimbabwe, became ill in Johannesburg, South Africa. The virus was transmitted there to his traveling companion and a nurse. A few sporadic cases and 2 large epidemics (Democratic Republic of Congo in 1999 and Angola in 2005) of Marburg hemorrhagic fever (Margurg HF) have been identified since that time. Ebolavirus was first identified in 1976 when two outbreaks of Ebola hemorrhagic fever (Ebola HF) occurred in northern Zaire (now the Democratic Republic of Congo) and southern Sudan. The outbreaks involved what eventually proved to be two different species of Ebola virus; both were named after the nations in which they were discovered. Both viruses showed themselves to be highly lethal, as 90% of the Zairian cases and 50% of the Sudanese cases resulted in death. Since 1976, Ebolavirus have appeared sporadically in Africa, with small to midsize outbreaks confirmed between 1976 and 1979. Large epidemics of Ebola HF occurred in Kikwit, Democratic Republic of Congo in 1995, in Gulu, Uganda in 2000, in Bundibugyo, Uganda in 2008, and in Issiro, DRC in 2012. Smaller outbreaks were identified in Gabon, DRC, and Uganda.

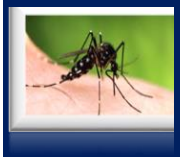
Spreading Filovirus infections: In an outbreak or isolated case among humans, just how the virus is transmitted from the natural reservoir to a human is unknown. Once a human is infected, however, person-to-person transmission is the means by which further infections occur. Specifically, transmission involves close personal contact between an infected individual or their body fluids, and another person. During recorded outbreaks of hemorrhagic fever caused by a Filovirus infection, persons who cared for (fed, washed, medicated) or worked very closely with infected individuals were especially at risk of becoming infected themselves. Nosocomial (hospital) transmission through contact with infected body fluids – via reuse of unsterilized syringes, needles, or other medical equipment contaminated with these fluids – has also been an important factor in the spread of disease. When close contact between uninfected and infected persons is minimized, the number of new Filovirus infections in humans usually declines. Although in the laboratory the viruses display some capability of infection through small-particle aerosols, airborne spread among humans has not been clearly demonstrated. During outbreaks, isolation of patients and use of protective clothing and disinfection procedures (together called viral hemorrhagic fever isolation precautions or barrier nursing) has been sufficient to interrupt further transmission of Marburgvirus or Ebolavirus, and thus to control and end the outbreak. Because there is no known effective treatment for the hemorrhagic fevers caused by Filoviruses, transmission prevention through application of viral hemorrhagic fever isolation precautions is currently the centerpiece of Filovirus control.



https://www.cdc.gov/vhf/virus-families/filoviridae.html

EPI WEEK 09





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Sentinel Surveillance in Jamaica

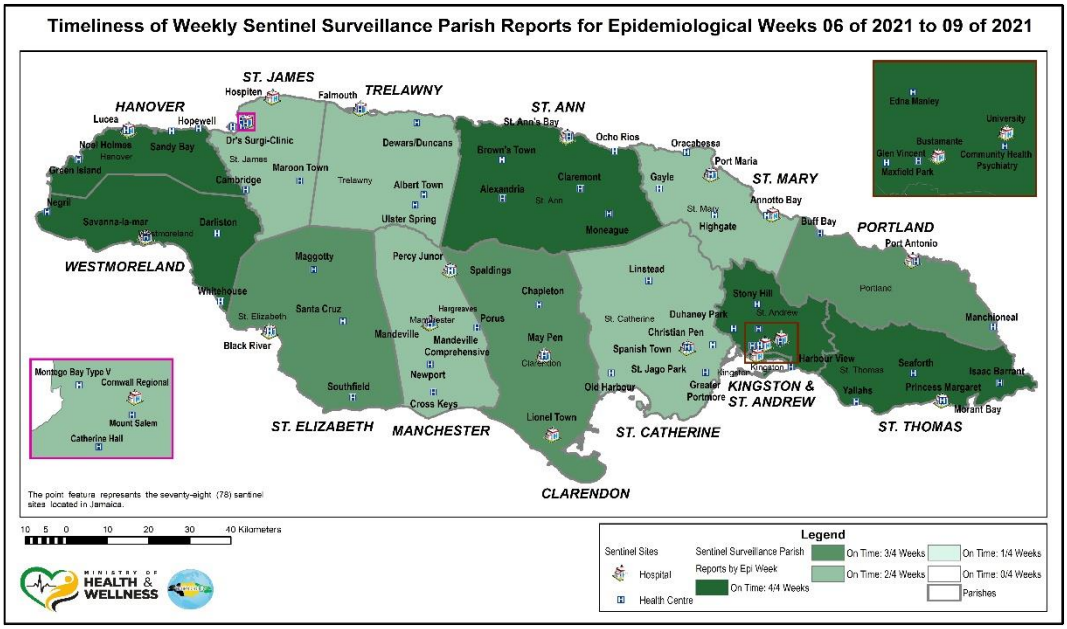
A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica's sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.

Map representing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks – 06 2021 to 09 of 2021

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

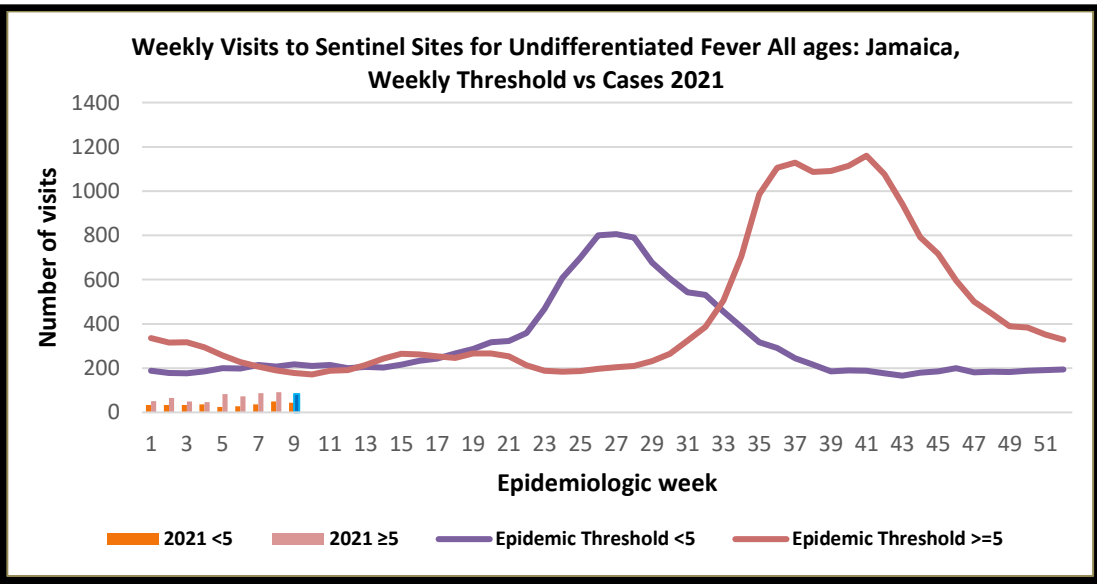


REPORTS FOR SYNDROMIC SURVEILLANCE

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

KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK



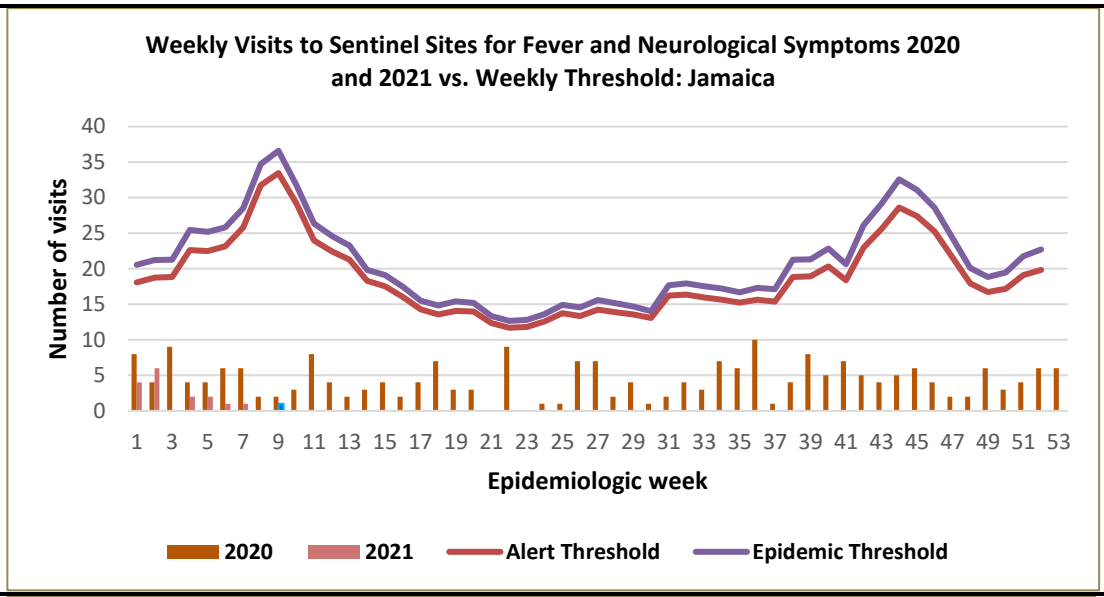
2 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

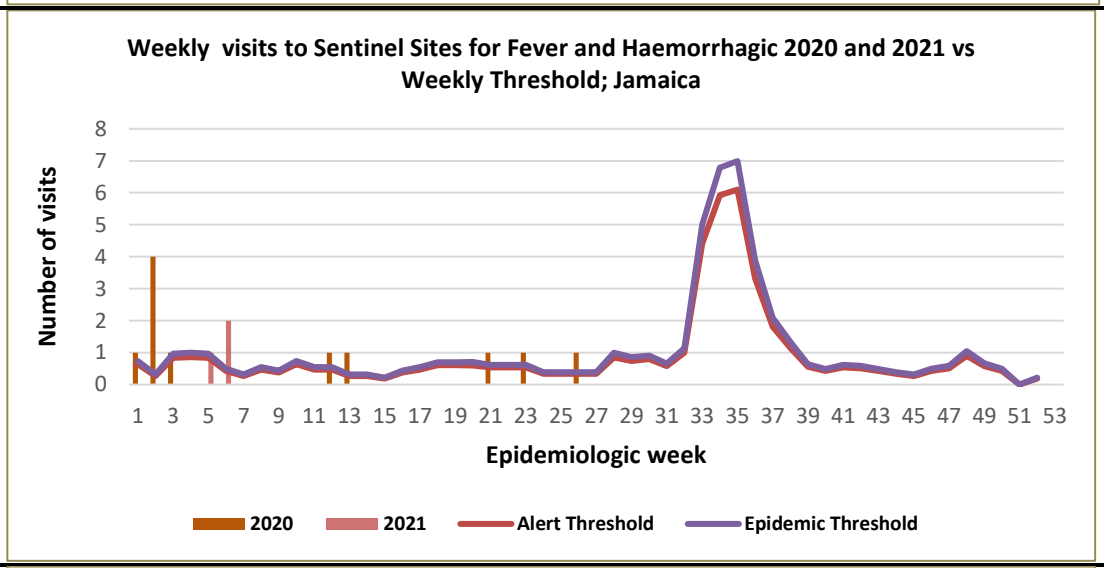
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL
Temperature of >38^{0}C /100.4^{0}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).

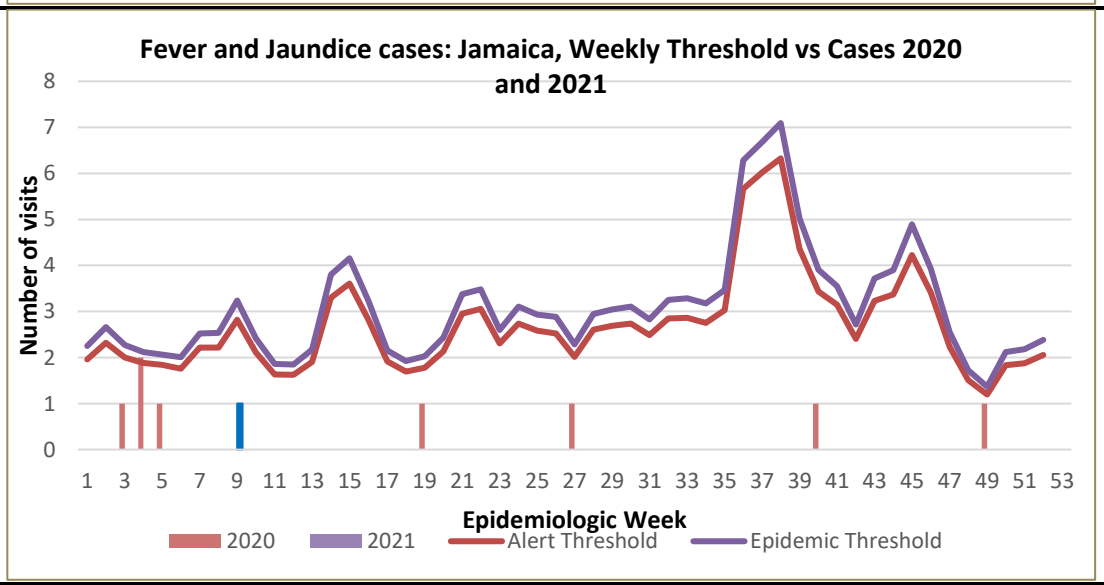


FEVER AND HAEMORRHAGIC
Temperature of >38^{0}C /100.4^{0}F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE
Temperature of >38^{0}C /100.4^{0}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.



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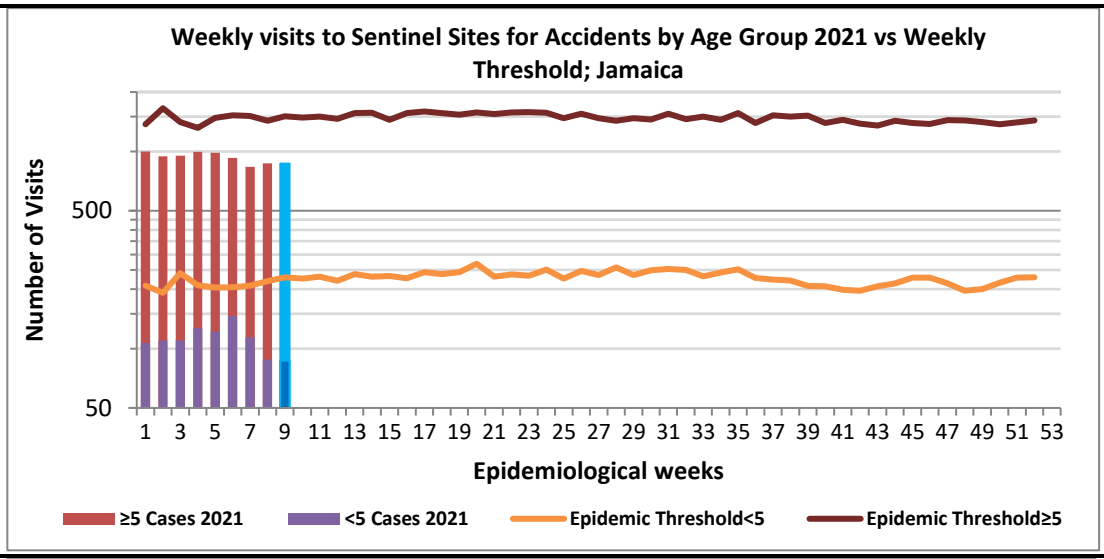
ACCIDENTS

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

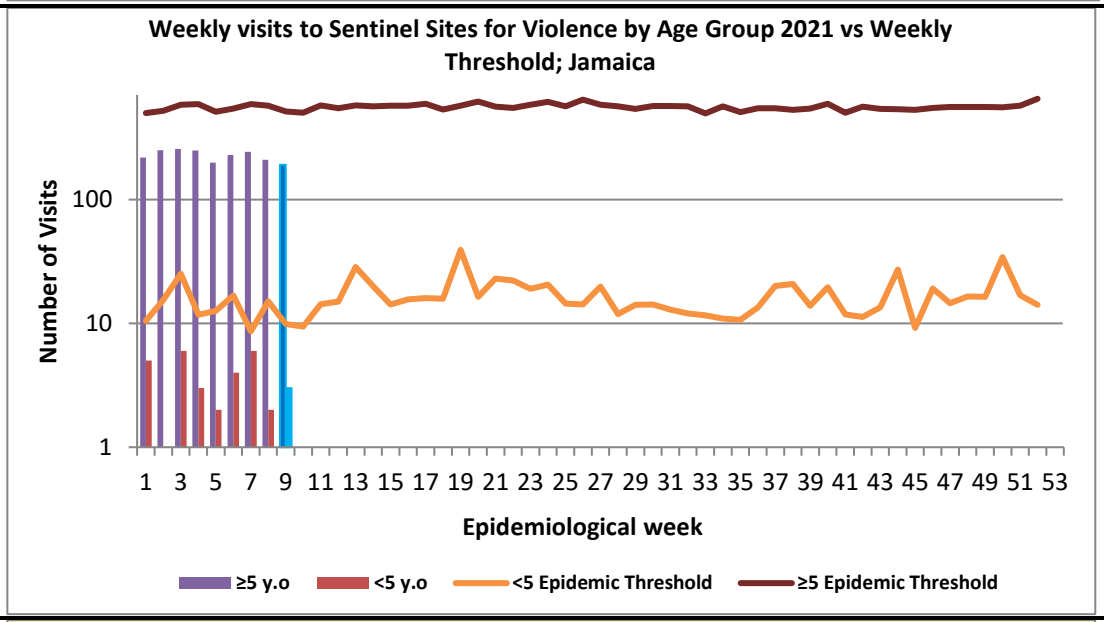
KEY

VARIATIONS OF BLUE SHOW CURRENT WEEK



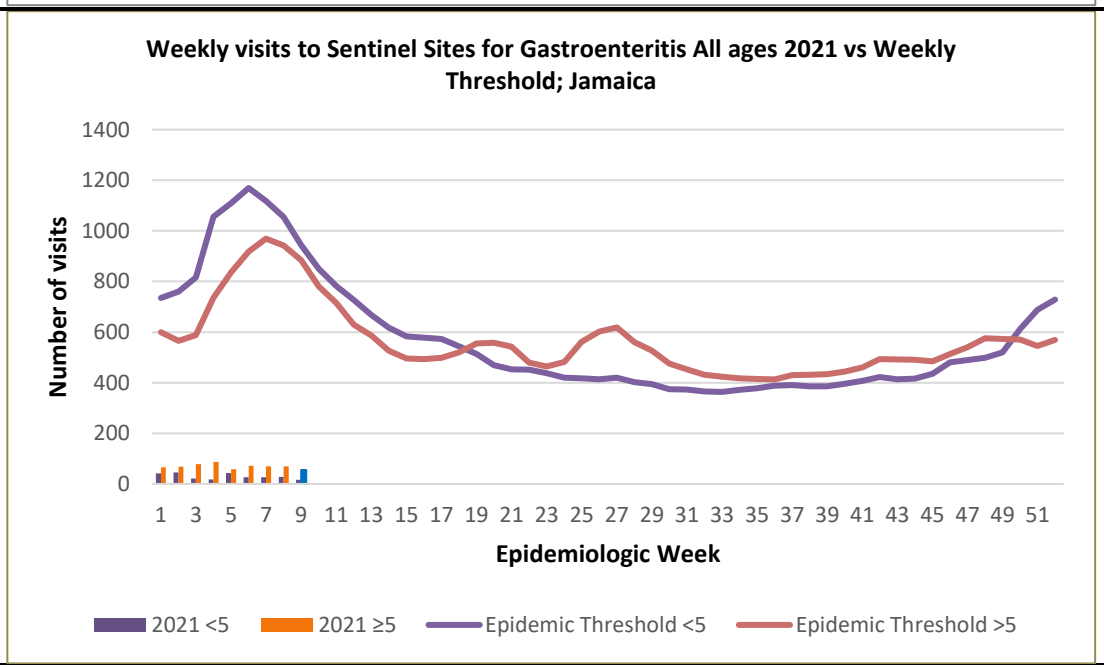
VIOLENCE

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



GASTROENTERITIS

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



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- CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS		Confirmed YTD[α] CURRENT YEAR 2021	PREVIOUS YEAR 2020
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		0[β]	24
	Cholera		0	0
	Dengue Hemorrhagic Fever[γ]		See Dengue page below	See Dengue page below
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		0	0
	Hepatitis C		0	0
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis (Clinically confirmed)		0	1
EXOTIC/ UNUSUAL	Plague		0	0
H IGH 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
	Congenital Rubella Syndrome		0	0
	Congenital Syphilis		0	0
	Fever and Rash	Measles	0	0
		Rubella	0	0
	Maternal Deaths[δ]		3	11
	Ophthalmia Neonatorum		0	12
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		0	4
	Yellow Fever		0	0
	Chikungunya[ε]		0	0
	Zika Virus[θ]		0	0

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.

[γ] Dengue Hemorrhagic Fever data include Dengue related deaths;

[δ] Figures include all deaths associated with pregnancy reported for the period.

[ε] CHIKV IgM positive cases

[θ] Zika PCR positive cases

[β] Updates made to prior weeks in 2020.

[α] Figures are cumulative totals for all epidemiological weeks year to date.

NA- Not Available

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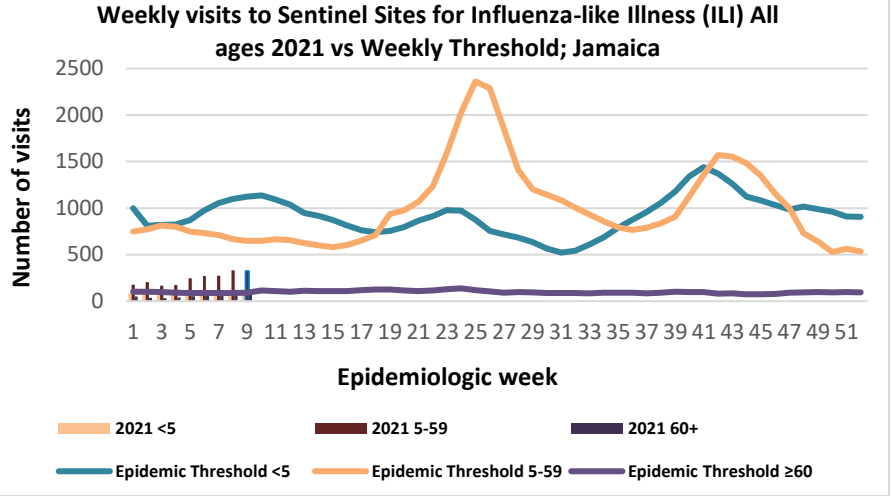
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 9

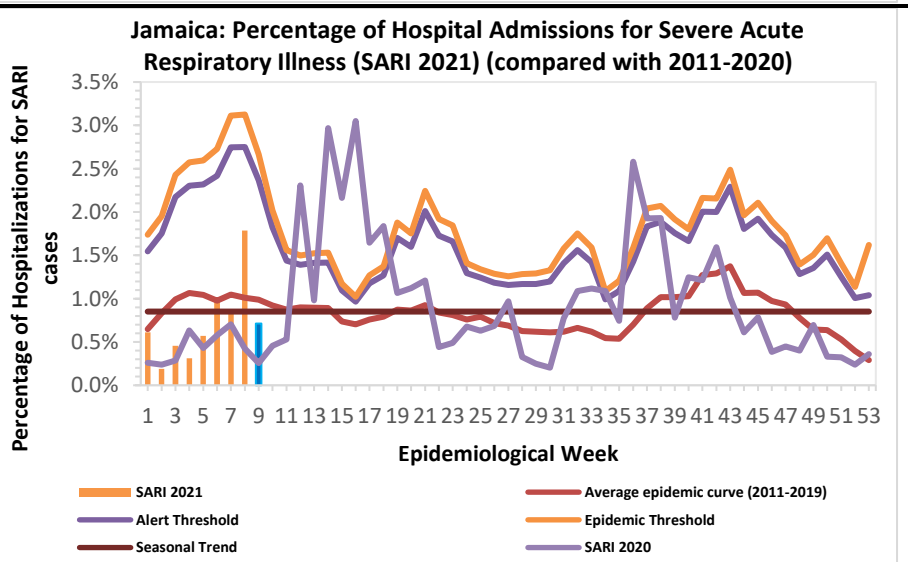
February 28, 2021 – March 06, 2021 Epidemiological Week 09

	EW 9	*YTD*
SARI cases	*11*	*106*
Total Influenza positive Samples	*0*	*0*
Influenza A	*0*	*0*
H3N2	*0*	*0*
H1N1pdm09	*0*	*0*
Not subtyped	*0*	*0*
Influenza B	*0*	*0*
Parainfluenza	*0*	*0*



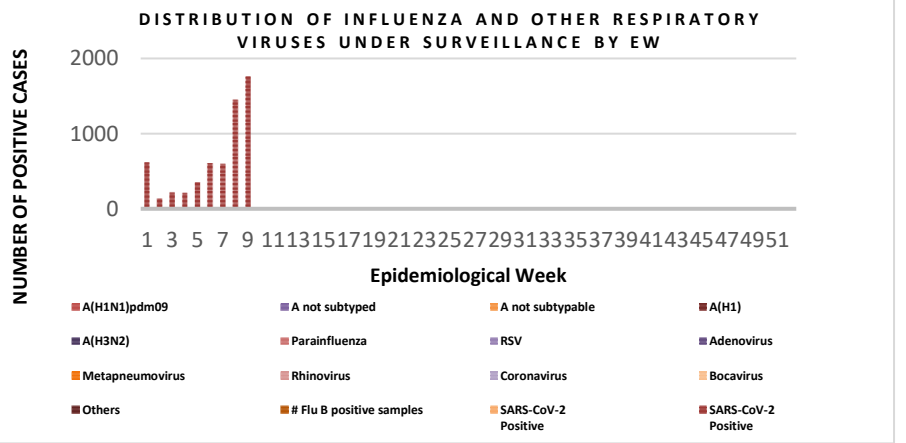
Epi Week Summary

During EW 09, 11 (eleven) SARI admissions were reported.



Caribbean Update EW 09

Caribbean: Influenza and other respiratory virus activity remained low overall. In Haiti, SARS-CoV-2 activity continue at moderate levels, but the cases decreased slightly in recent weeks. In Jamaica, SARS-CoV-2 activity continued elevated and increasing.



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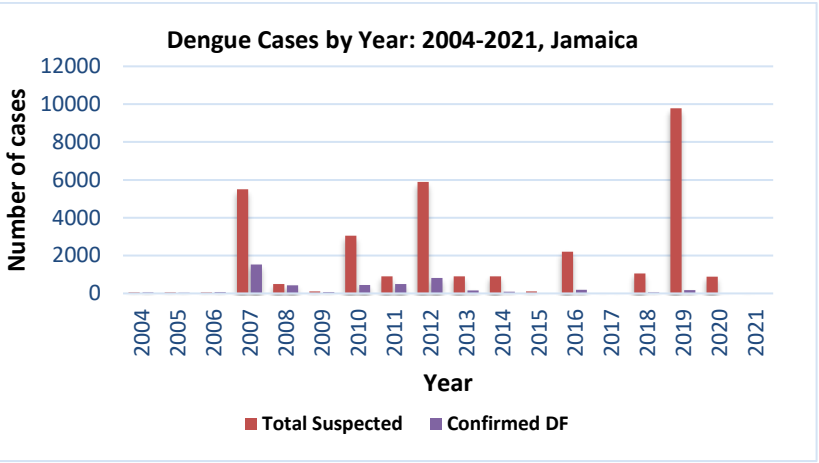
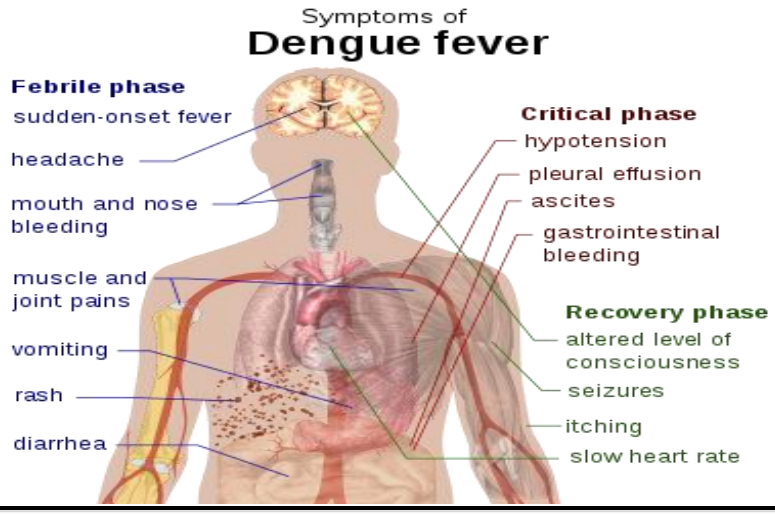
Dengue Bulletin

February 28, 2020 – March 06, 2021 Epidemiological Week 09 | Epidemiological Week 09



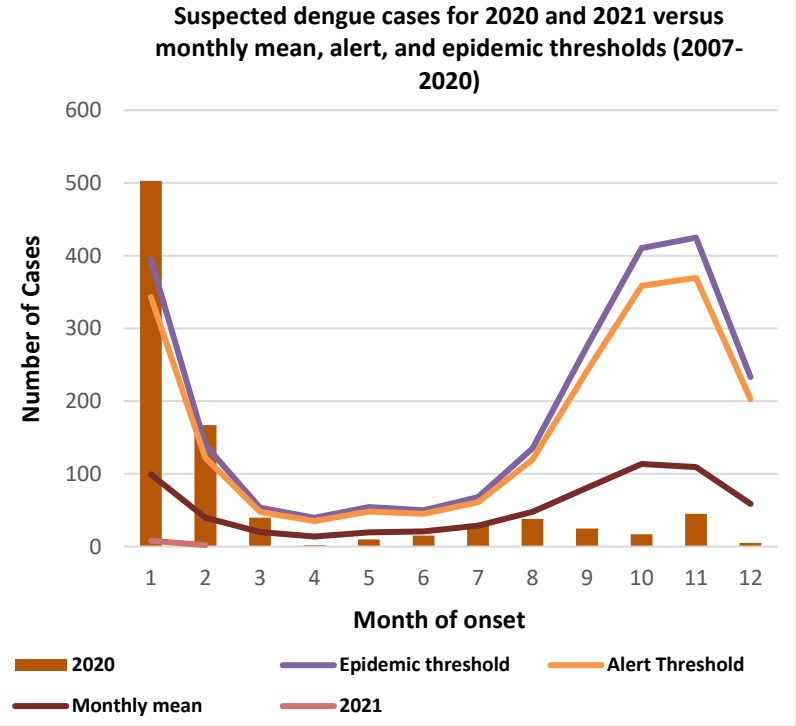
Reported suspected and confirmed dengue with symptom onset in week 09 of 2021

	2021*	
	EW 09	YTD
Total Suspected Dengue Cases	10	10
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at March 19, 2021
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

ABSTRACT

Has Cervical Cancer Screening Increased in Jamaica?

Davidson-Sadler T[1]

[1]*Ministry of Health, Jamaica*

Objective: To examine whether there has been an increase in screening for cervical cancer using the Papanicolau (Pap) smear test in Jamaica since 1997.

Design and Methods: A secondary data analysis was done on data published in the Reproductive Health Survey 1997, 2001 and 2008; and the Ministry of Health, Monthly Clinical Summary Report 2002 to 2011.

Results: There was a 24.8% increase in women aged 15 – 49 years old that had ever had a Pap smear test between 1997and 2002 17.8%, and 2002 and 2008 5.8%. The parish with the highest coverage over the period was St. Thomas. The percentage of women aged 25 – 49 who had a Pap test in the past three years increased by 29.2% (from 53.1% to 68.6%) between 2002 and 2008. The higher socioeconomic status was associated with higher rates of screening. The number of Pap smear test done in the government health centres increased by 78% from 2002 to 2011.

Conclusion: There was an overall increase in cervical cancer screening coverage including within the National target age group since 1997. However, some parishes showed a decline between 2002 and 2008. Targeted interventions must be employed to reach parishes with low coverage.

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