WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Foodborne Trematodes

Foodborne trematodes are a group of diseases that include the parasites Clonorchis, Opisthorchis, Fasciola and Paragonimus. These parasitic flukes have a complex life cycle involving diverse definitive hosts and one or two intermediate hosts. Foodborne trematodes cause infection in humans via the consumption of contaminated food (raw fish, crustaceans or vegetables). Infection can result in severe liver and lung disease and together these diseases are estimated to cause 2 million life years lost to disability and death worldwide every year.
The public health burden due to foodborne trematodiases is predominantly due to morbidity rather than mortality with early and light infections often going unnoticed. Chronic infections are associated with severe morbidity with symptoms reflecting the organ in which the adult worms are located in.

Clonorchis and Opisthorchis species have adult flukes that lodge in the smaller bile ducts of the liver, resulting in inflammation and fibrosis of surrounding tissues. Acute or early infection may result in non-specific gastrointestinal symptoms. Chronic infection can result in cholangiocarcinoma, a fatal bile duct cancer. Both C. sinensis and O. viverrini are classified as carcinogens.

Fasciola adult worms lodge in larger bile ducts and gall bladder resulting in inflammation, fibrosis, blockage, colic pain and jaundice. Chronic infection can result in liver cirrhosis.

The final location of Paragonimus species is in the lung tissue, resulting in a chronic cough, blood-stained sputum, chest pain, dyspnoea (shortness of breath) and fever. These symptoms can be confounded with tuberculosis. Adult worms may also infect extra-pulmonary locations such as the brain and can result in symptoms of headaches, mental confusion, convulsions and cerebral haemorrhage.

Treatment of foodborne trematodiases is important to prevent progression of clinical disease and reduce associated morbidity. Treatment can be offered through preventive chemotherapy or individual case management.

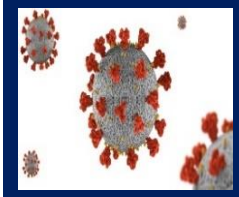
Preventive chemotherapy involves a population-based approach where everyone in a given region or area is given medicines, irrespective of their infection status. This is recommended in areas where large numbers of people are infected. Praziquantel is recommended for treatment of clonorchiasis and opisthorchiasis while triclabendazole is recommended for fascioliasis. Both praziquantel and triclabendazole can be used for treatment of paragonimiasis.

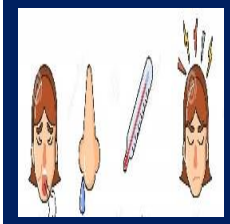
Individual case-management involves the treatment of people with confirmed or suspected infection. This approach is more appropriate where cases are less clustered and where health facilities are available.

Treatment should be complemented by interventions that reduce transmission such as education on safe food practices, improved sanitation and veterinary public health measures.

Taken from WHO website on 16/ July /2024
https://www.who.int/health-topics/foodborne-trematode-infections#tab=tab_1
https://www.who.int/health-topics/foodborne-trematode-infections#tab=tab_2
https://www.who.int/health-topics/foodborne-trematode-infections#tab=tab_3

EPI WEEK 27





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.

Table showcasing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks – 24 to 27 of 2024

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

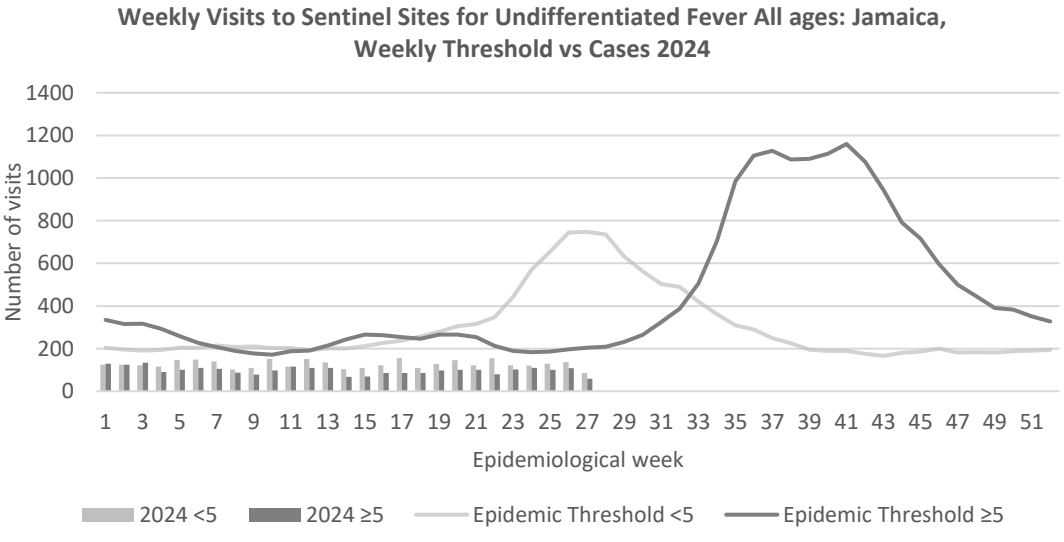
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

Epi week	Kingston and Saint Andrew	Saint Thomas	Saint Catherine	Portland	Saint Mary	Saint Ann	Trelawny	Saint James	Hanover	Westmoreland	Saint Elizabeth	Manchester	Clarendon
2024													
24	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
25	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
26	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
27	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time

REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

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



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

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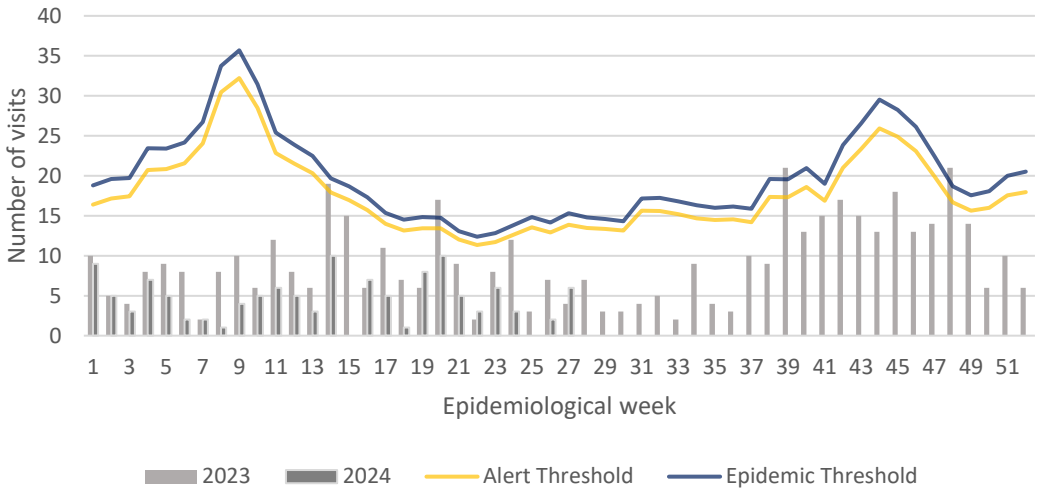
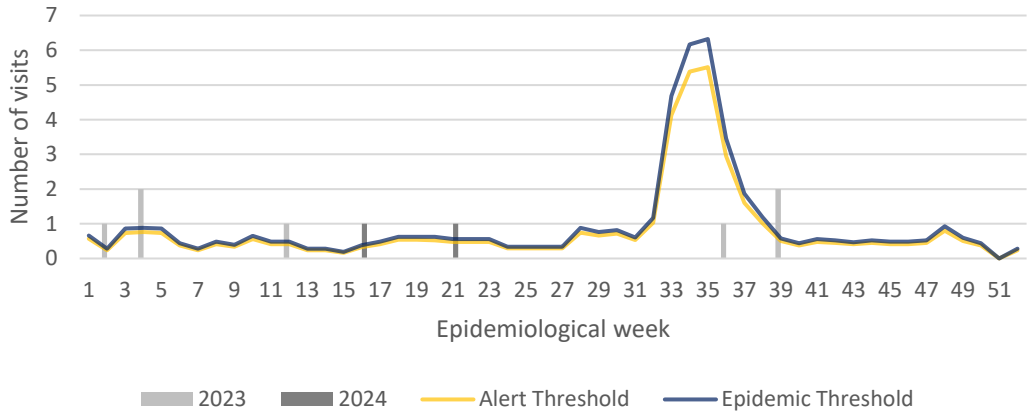
FEVER AND NEUROLOGICAL

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

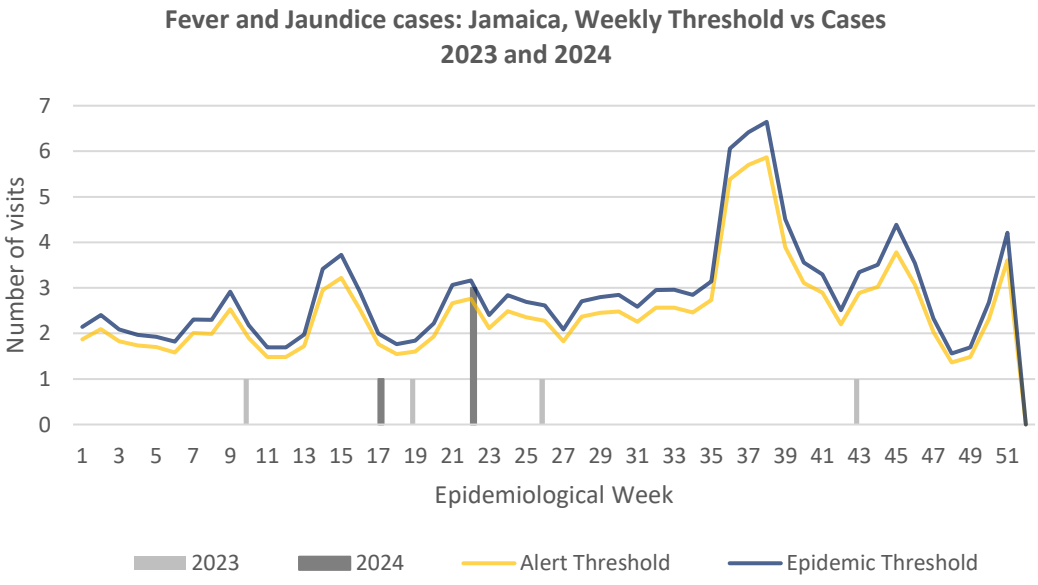
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE

Temperature of >38^0C /100.4^0F (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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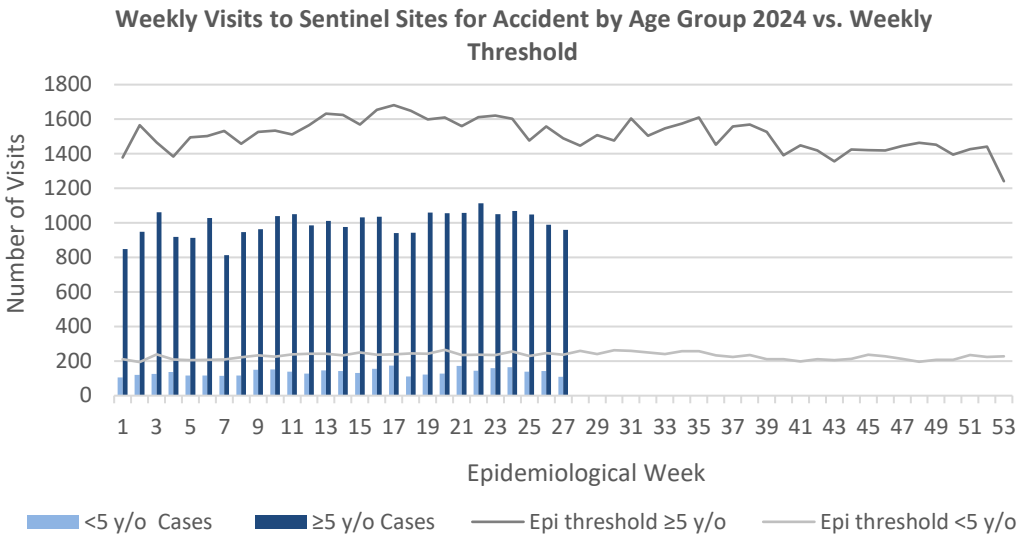
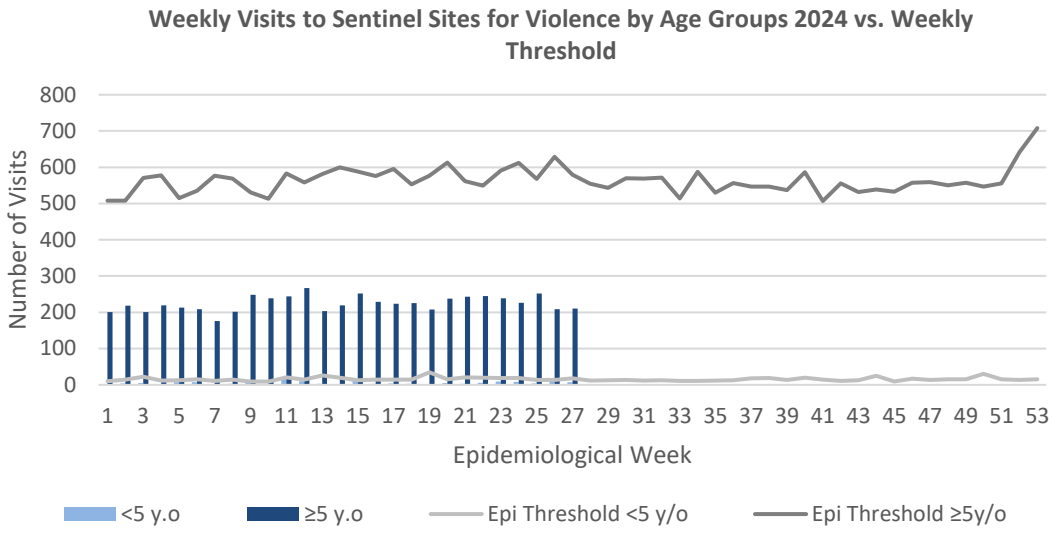
ACCIDENTS

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



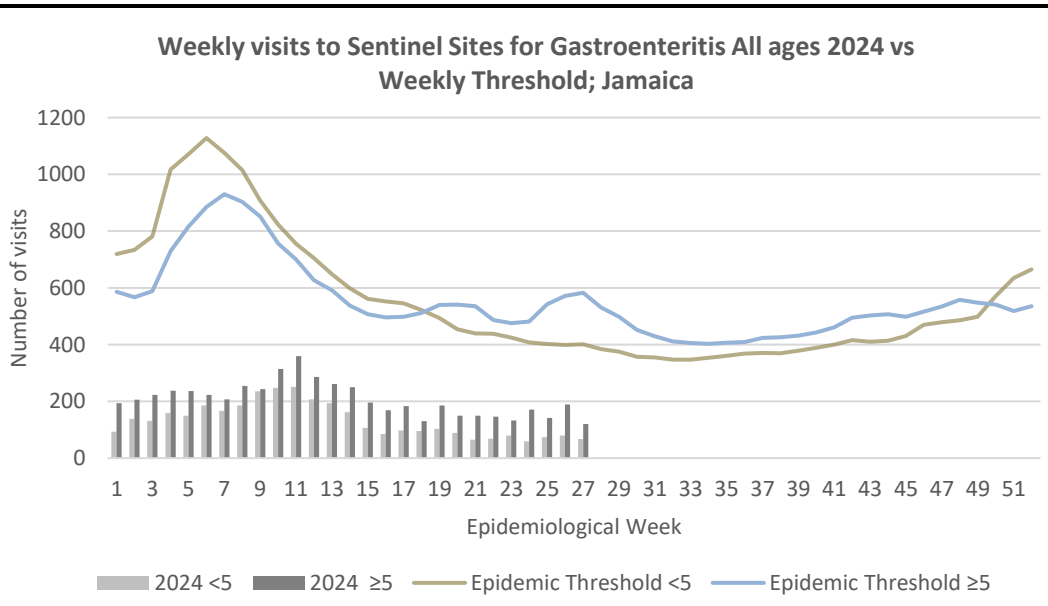
VIOLENCE

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 2024	PREVIOUS YEAR 2023
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		197[β]	205[β]
	Cholera		0	0
	Severe Dengue[Y]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		410	2683
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		10	41
	Hepatitis C		1	21
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis		9	17
	Monkeypox		0	3
EXOTIC/ UNUSUAL	Plague		0	0
H IGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0
	Neonatal Tetanus		0	0
	Typhoid Fever		0	0
	Meningitis H/Flu		1	2
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]		34	30
	Ophthalmia Neonatorum		71	81
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		13	37
	Yellow Fever		0	0
	Chikungunya[ε]		0	0
	Zika Virus[θ]		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.

[Y] 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.

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

NA- Not Available

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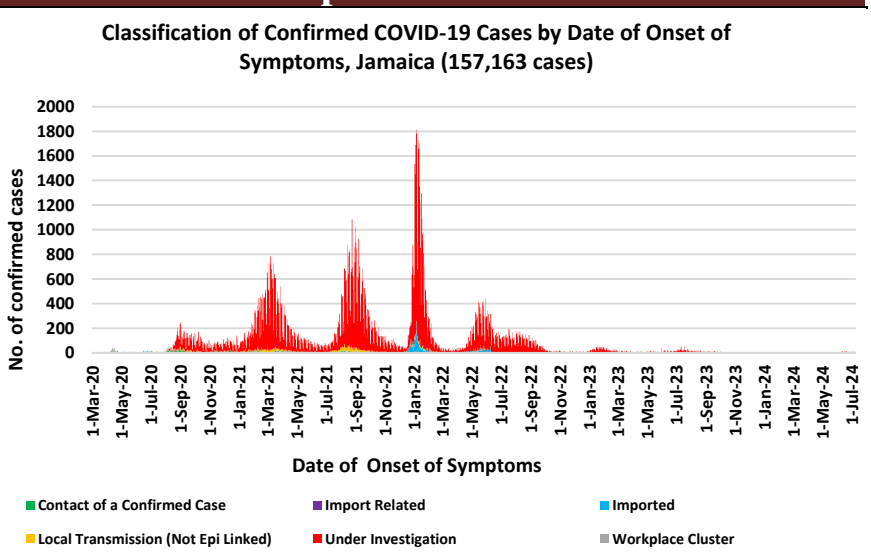
COVID-19 Surveillance Update

CASES	EW 27	Total
Confirmed	33	157163
Females	16	90565
Males	17	66595
Age Range	1 day to 93 years old	1 day to 108 years

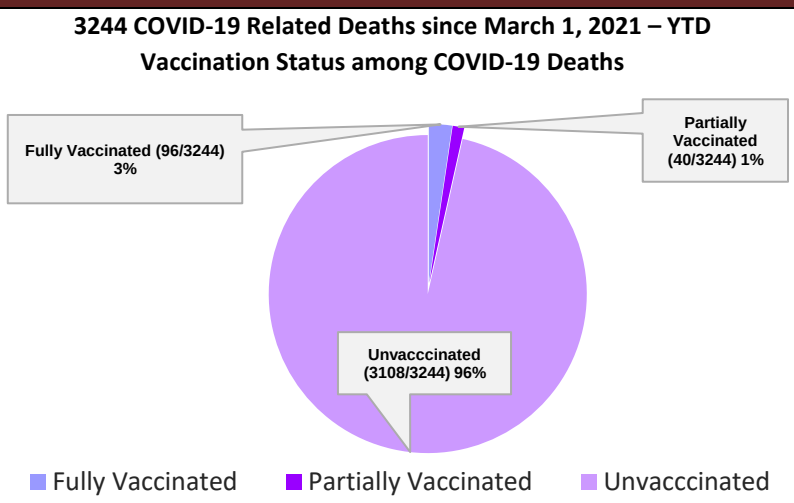
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

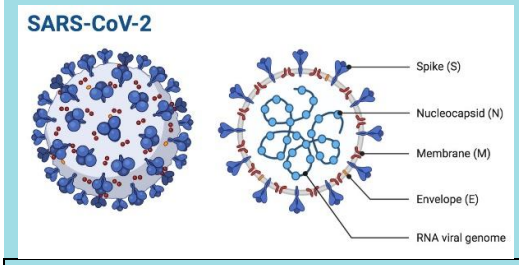
Outcomes	EW 27	Total
ACTIVE *2 weeks*		86
DIED – COVID Related	0	3806
Died - NON COVID	0	370
Died - Under Investigation	0	196
Recovered and discharged	0	103226
Repatriated	0	93
Total		157163

*Vaccination programme March 2021 – YTD
* Total as at current Epi week



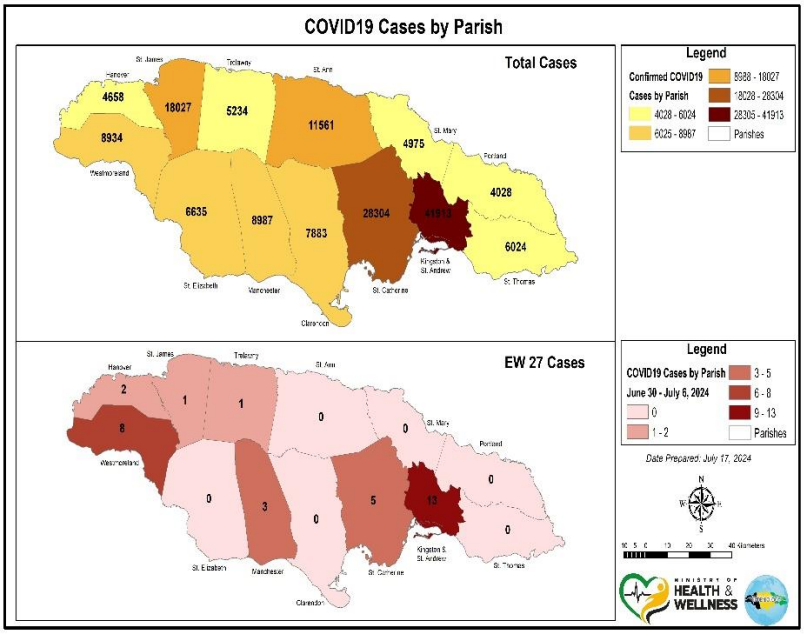
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW 24-27, 2024

Epi Week	Confirmed Cases	Deaths
24	35200	487
25	34200	505
26	31100	588
27	38100	461
Total (4weeks)	**138600**	**2041**



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July 19, 2024 ISSN 0799-3927

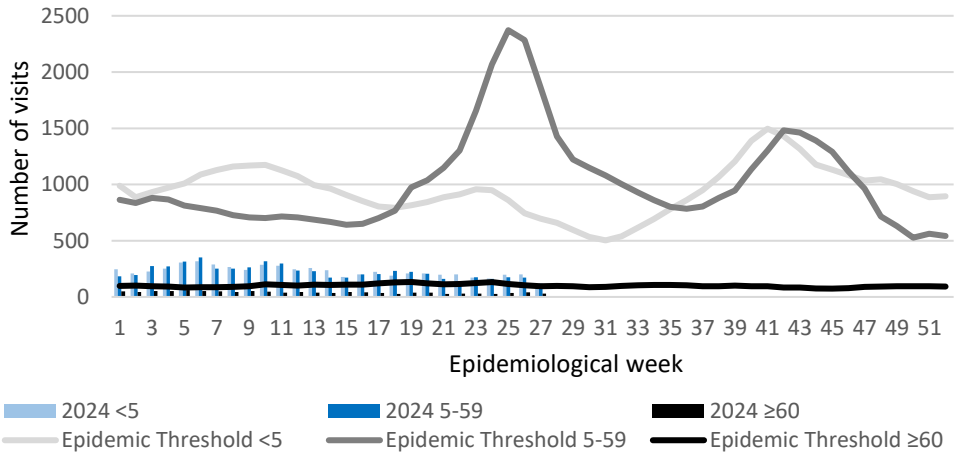
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 27

June 30, 2024 – July 6, 2024 Epidemiological Week 27

	EW 27	*YTD*
SARI cases	3	184
Total Influenza positive Samples	**1**	**98**
Influenza A	**1**	**95**
H3N2	1	28
H1N1pdm09	0	67
Not subtyped	0	0
Influenza B	**0**	**3**
B lineage not determined	0	0
B Victoria	0	3
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	28

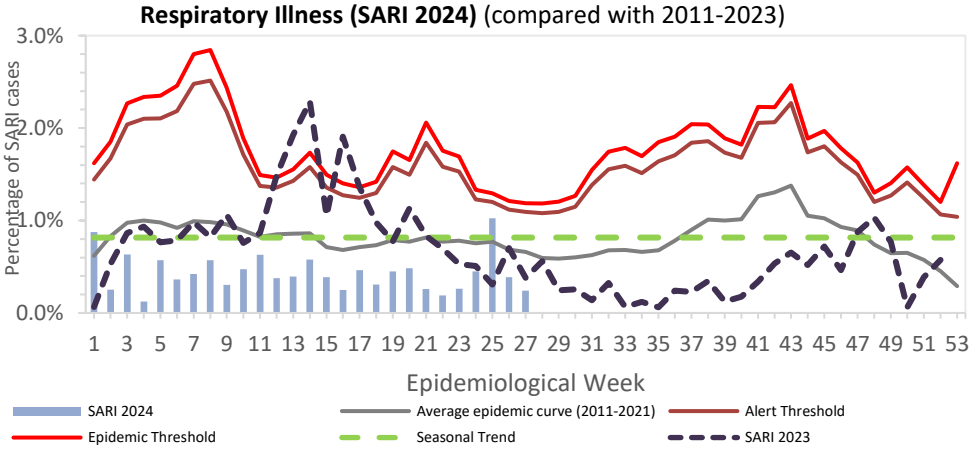
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 27, three (3) SARI admissions were reported.

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2024) (compared with 2011-2023)



Caribbean Update EW 27

Caribbean: In the last four EWs, ILI cases have increased, associated with a higher proportion of positive SARS-CoV-2 and influenza cases. Although SARI cases have remained low, there has been an increase in the proportion of positive SARS-CoV-2 and Influenza cases. Influenza activity has remained at intermediate levels during the last four EWs. During this period, the predominant viruses have been type A(H3N2), with concurrent circulation of influenza A(H1N1)pdm09. RSV activity has remained low. SARS-CoV-2 activity remains elevated but shows a decreasing trend.

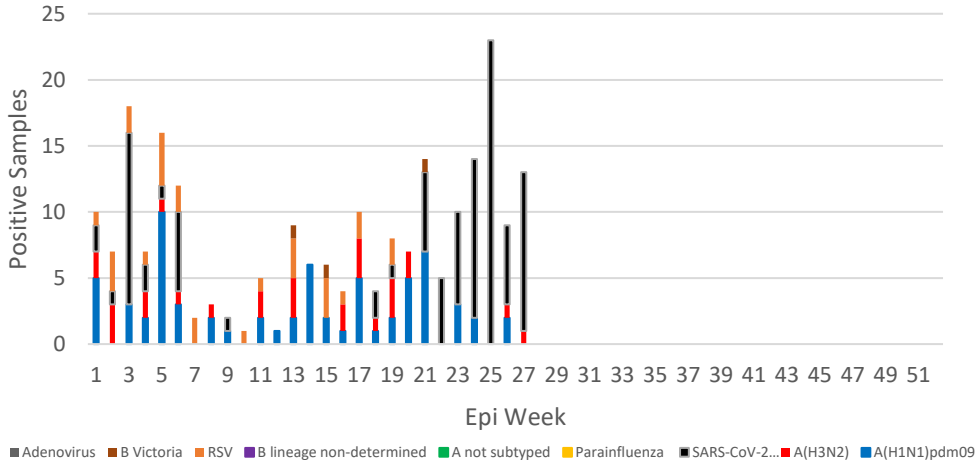
By country: Influenza activity has been observed in the last four EWs in the Dominican Republic, Jamaica, Guyana, and the Cayman Islands.

SARS –CoV-2 activity was been observed in Belize, the Dominacan Republic, Jamaica, Suriname, Barbados, Guyana, the Cayman Islands and Saint Vincent and the Grenadines.

In Jamaica, SARI cases have increased above the epidemic threshold, coinciding with a marked increase in SARS-CoV-2 and influenza activity.

(taken from PAHO Respiratory viruses weekly report)
https://www.paho.org/en/influenza-situation-report

Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2024



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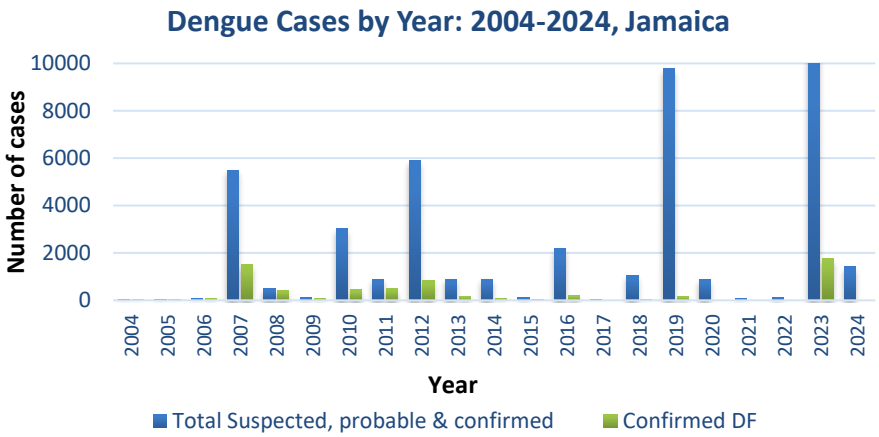
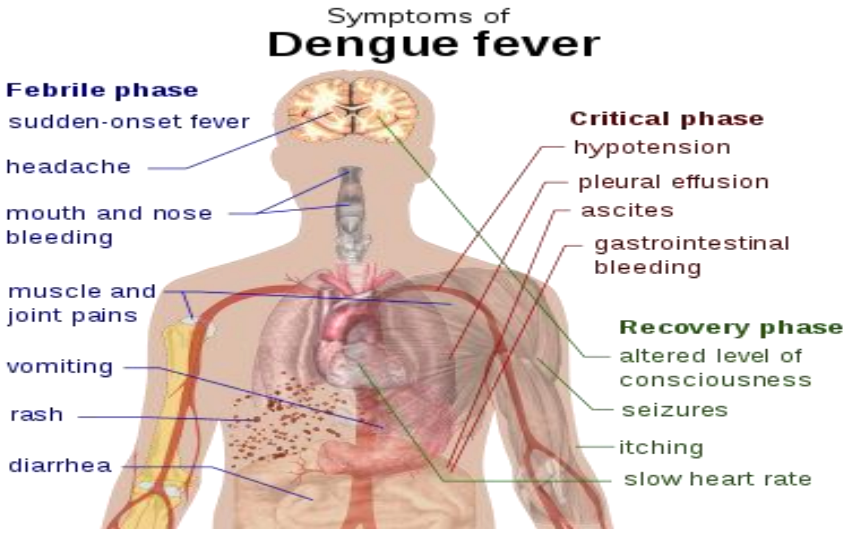
Dengue Bulletin

June 30, 2024 – July 6, 2024 Epidemiological Week 27 | Epidemiological Week 27



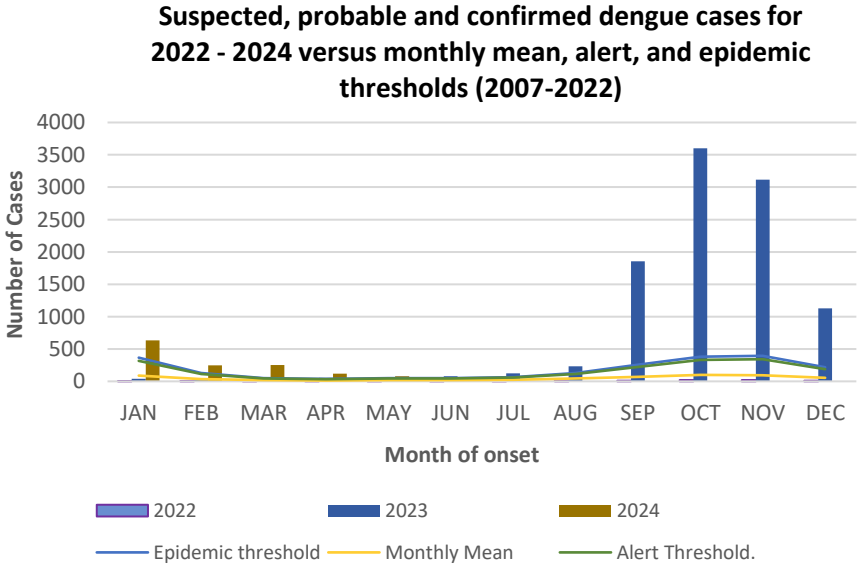
Reported suspected, probable and confirmed dengue with symptom onset in week 27 of 2024

	2024*	
	EW 27	YTD
Total Suspected, Probable & Confirmed Dengue Cases	1	1406
Lab Confirmed Dengue cases	0	5
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- **Dengue deaths are reported based on date of death.**
- ***Figure as at July 16, 2024**
- **Only PCR positive dengue cases are reported as confirmed.**
- **IgM positive cases are classified as presumed dengue.**



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RESEARCH PAPER

Abstract

NHRC-23-P07

Unravelling the Silent Threat: Venous Thromboembolism in Gynaeoncology Patients

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[1]University Hospital of the West Indies, Mona, Jamaica, [2] Epidemiology Research Unit, Caribbean Institute for Health Research, UWI, Mona, Jamaica

Objectives: To determine the incidence and risk factors of venous thromboembolism (VTE) among patients with Gynaecologic malignancies

Methods: This is a case control study. The medical records of patients diagnosed with VTE, at the University Hospital of the West Indies, from January 1, 2011 to December 31,2020 were retrieved. A sample of 66 Gynaecologic oncology patients without DVT were selected by simple randomization. The main predictor variables include: age, body mass index, anaemia, cancer site, grade, stage, and method of treatment. Descriptive univariate analyses of variables were done using frequencies and percentages for categorical variables and means and standard deviation for continuous data. Bivariate analyses for associations were done using chi-square test. Logistic regression and survival analysis (Kaplan Meier estimate and the cox proportional hazard model) were performed to ascertain the effects of covariates on the outcome of VTE. Statistical significance was $p<0.05$

Results: The incidence of VTE among Gynaeoncology patients was 2.4% compared to an overall incidence of 0.95%. More than half of the patients with VTE had stage 4 disease.

The likelihood of VTE increased in patients with high grade disease (OR 34.7), increasing age (odds ratio 1.07, C.I. 1.024 to1.118), and significant anaemia (odds ratio 21.4, C.I.:1.73 to 264.7). The median time to diagnosis of VTE for low- grade and high-grade tumours were 4 and 7 months respectively (Log Rank 0.129) with an increased risk in patients with high grade disease (Hazard Ratio of 85.36, 95% C.I 1.99 to 3658.11) and decreased risk following surgery (Hazard Ratio of 0.03, 95% C.I:0.001 to 0.739).

Conclusion: There is a higher incidence of VTE among Gynaecologic oncology patients. The significant risk factors are age, anaemia, cancer grade and stage.

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