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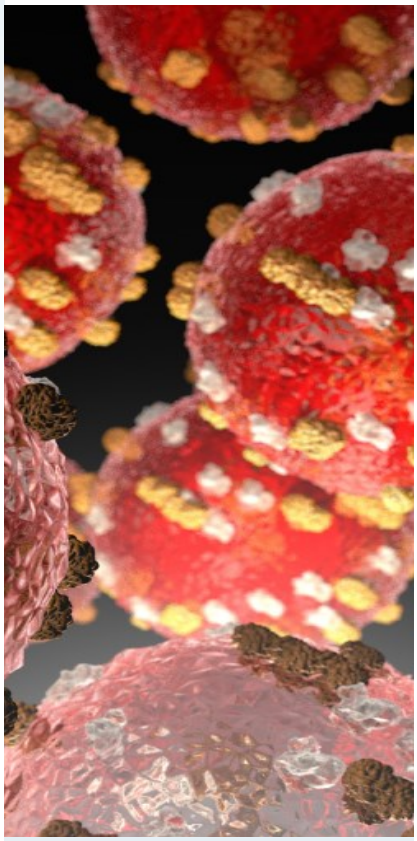
Volume 2, Issue 1

South East Regional Health Authority (SERHA)

EPIDEMIOLOGICAL UPDATE



The role of this bulletin

This bulletin is a product of the Surveillance Unit at the SERHA. It is produced quarterly with the intention of keeping health sector professionals and members of the general public aware of the latest epidemiological trends in Kingston & St. Andrew (KSA), St. Catherine (STC), and St. Thomas (STT).

Measles

According to the World Health Organisation (WHO) Measles is one of the most infectious diseases known to man. It is caused by a virus which spreads easily when an infected person breathes, coughs or sneezes. It can cause severe disease, complications, and even death. Measles can affect anyone but is most common in children and unvaccinated persons. Current outbreaks occurring in the USA and Canada, combined with subpar vaccination coverage, makes the possibility of measles infection a growing treat in Jamaica.

Symptoms

Symptoms of measles can begin between 7-21 days after exposure to the virus. A prominent rash is the most visible sign which usually starts on the face then spreads downward to the rest of the body towards the feet. Early symptoms usually last 4–7 days and can include running nose, cough, red and watery eyes, or small white spots inside the cheeks. Complications may include blindness and nervous system disorders.

Prevention

Community-wide vaccination is the most effective way to prevent measles. All children should receive 2 vaccine doses to ensure maximum protection against virus. The first dose is usually given at 1 year of age; the second dose is given at 18 months. Two doses of the measles vaccine provides 97% protection against this highly infectious illness. The vaccine is safe, effective and free of cost in the public health sector.

Treatment

There is no specific treatment for measles. Caregiving should focus on relieving symptoms, making the person comfortable and preventing complications. Anti-pyrectics can aid in fever relief; drinking enough water and treatments for dehydration can replace fluids lost to diarrhoea or vomiting. Eating a healthy diet is also important. Doctors may use antibiotics to treat pneumonia and ear and eye infections, if they develop. Vitamin A supplements may be given in specific cases to decrease the severity of complications.

Inside this issue

References:
World Health Organization: WHO & World Health Organization: WHO. (2024, November 14). Measles. https://www.who.int/news-room/fact-sheets/detail/measles

Vaccine-Preventable Disease Surveillance—Fever & Rash

Fever and Rash

'Fever and Rash' cases serve as a proxy for critical illnesses which present primarily with fever and rash symptoms including measles, rubella and dengue fever cases. Jamaica's surveillance mechanism for the detection of 'Fever and Rash' cases is robust, multi-faceted and includes cases detected via:

1. Event-based surveillance/Class 1 Notifications for cases of Fever and maculopapular rash reported via active and passive mechanisms from all health facilities
2. Syndromic 'fever and rash' surveillance; and
3. Hotel surveillance to identify imported fever and rash cases at critical entry points into the island

Syndromic 'Fever & rash' is defined as an individual presenting with fever of ≥38°C /100.4°F, or recent history of fever, and rash and where there is no obvious cause of one or both symptoms.

Fever and Rash Surveillance is a critical component of Vaccine Preventable Disease Surveillance (VPD) for the identification of imported measles and rubella cases. Key Performance Indicators (KPIs) for VPD surveillance include:

◊ Fever & Rash cases notified (Class 1 Notifiable Disease: 100% fever & maculopapular rash cases to be notified)

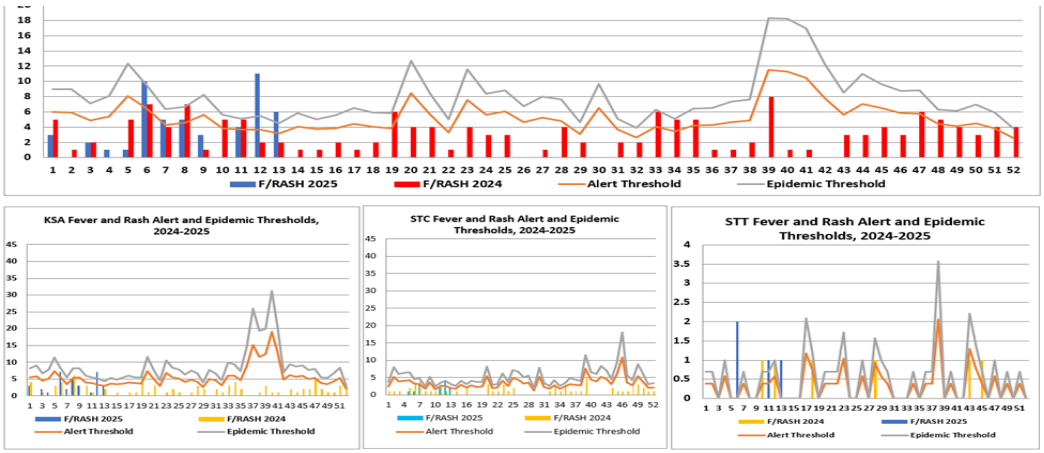
◊ Fever & Rash cases investigated within 48hrs

◊ Fever & Rash cases with adequate serum sample (red top) for 'measles/rubella' testing

The SERHA Surveillance Unit has increased capacity building, sensitization, and monitoring for fever and rash cases given the current outbreaks in the USA and Canada along with the epidemiological profile in the Region of the Americas.

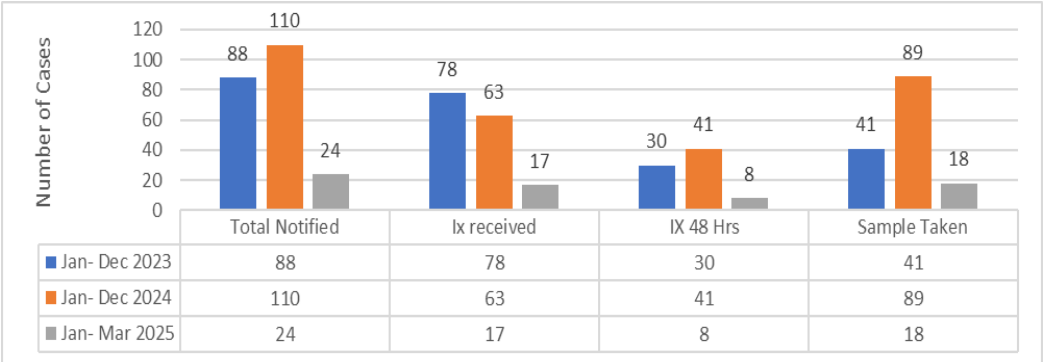
Syndromic Fever and Rash

Fever & Rash Visits vs Alert & Epidemic Thresholds, 2024-2025



- A total of 51 Fever & Rash visits were reported via syndromic surveillance between EWs 1 – 13 (January to March 2025), which represents an 11% increase when compared to January to March 2024 (46 cases).
- KSA accounted for 34 visits, followed by St. Catherine with 13 visits and St. Thomas with 4.
- Fever & Rash visits surpassed Epidemic Threshold intermittently during the quarter. Data is being disaggregated to identify any threats.

Class 1 Notified Fever and Rash Cases in SERHA, Jan-Dec 2023-2024 & Jan-Mar 2025



	Total Notified	Ix received	IX 48 Hrs	Sample Taken
Jan- Dec 2023	88	78	30	41
Jan- Dec 2024	110	63	41	89
Jan- Mar 2025	24	17	8	18

- There were 24 fever and rash cases notified from health facilities across the region in the first quarter of 2025. Of the 24 cases, 18 samples were taken (75%), and 17 investigation forms received (71%), a third within the 48 hour deadline. Although timeline for investigation remains subpar, case detection (as evidenced by increased notifications received) and sampling have notably improved from 2023 baselines (47%) .

- There were zero cases of fever & rash reported from all relevant hotels under surveillance.

- Of note, a highly suspicious case of suspected measles was identified at the Stony Hill Health Centre during the reporting quarter, which prompted robust response from the KSA HD. Client was identified at triage, immediately isolated at the facility, and later transported to the UHWI for isolation and fulsome investigation. Measles and rubella samples for PCR and IgM testing were sent. The HD conducted community investigation within 24 hours. Negative results were received and case therefore discarded.

Syndromic Surveillance

- There are 21 designated sentinel sites in both primary & secondary care facilities across the region.
- Data on specific, predefined conditions are reported from these designated sentinel sites and are used to monitor trends.
- Monitoring trends on these predefined syndromes allows for early detection and timely response to public health threats.

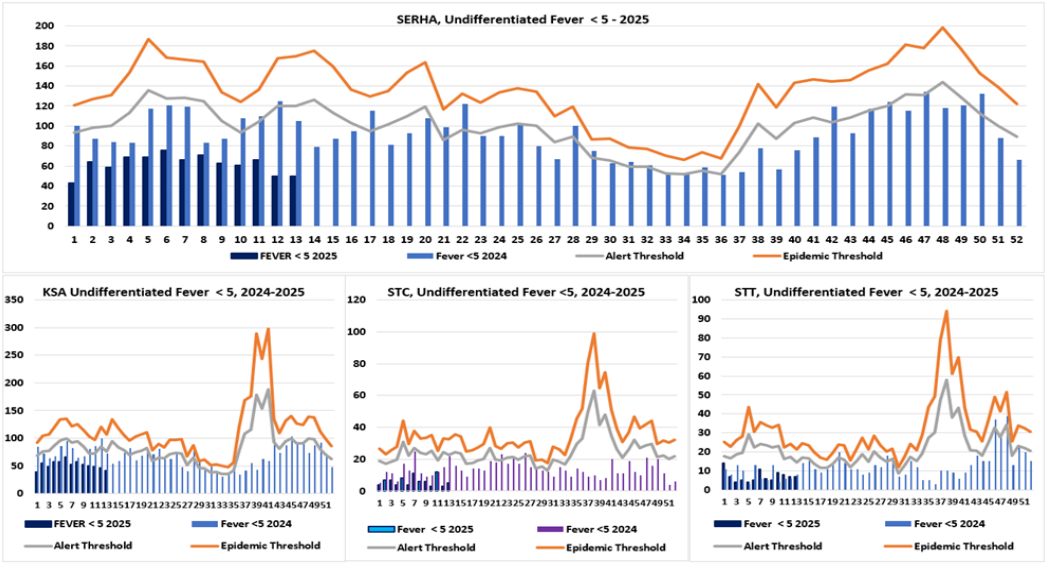
Undifferentiated Fever

Undifferentiated Fever

Defined as a temperature of ≥38° C/100.4°F (or recent history of fever) without an obvious diagnosis or focus of infection.

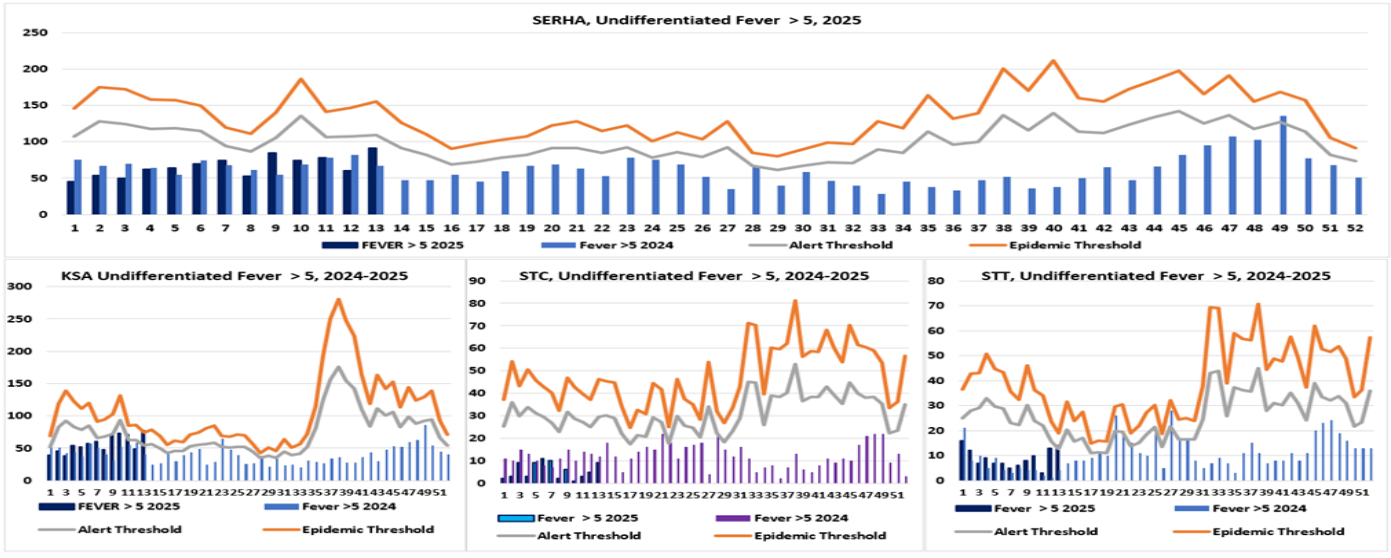
Undifferentiated fever is a proxy for possible Dengue Fever, Leptospirosis, Malaria or Influenza to name a few.

Undifferentiated Fever Visits vs. Thresholds <5 yrs, 2024-2025



- A total of 1726 undifferentiated fever visits were reported from SERHA Sentinel Sites in epidemiological weeks 1– 13 (January – March 2025). This represented a 22% decrease when compared to the same period in 2024 (2214 visits).
- KSA accounted for 85% (1467) of the reported visits; STC 9% (153) and STT represented 6% (106 visits).
- Patients greater than 5 years old and under 5 years groups accounted for 51% and 49% of reported visits respectively.
- Undifferentiated fever remained below Alert and Epidemic Threshold in both cohorts across the region.

Undifferentiated Fever Visits vs. Thresholds >5 yrs, 2024-2025



Syndromic Surveillance

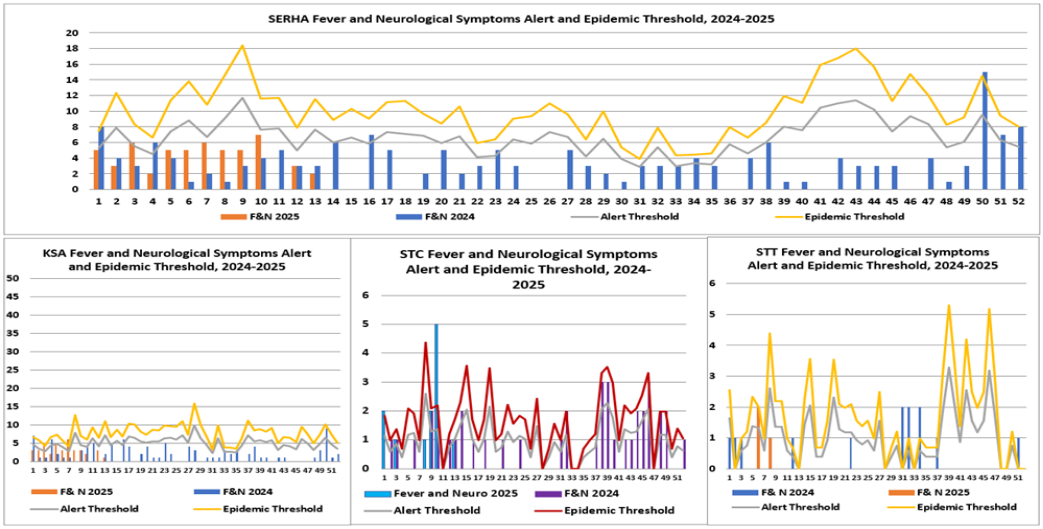
Fever and Neurology

Fever and Neurology

Defined as a fever (100.4 °F/38 °C or greater) or recent history of fever in a person with evidence of meningeal irritation, convulsions, altered consciousness, altered sensory manifestations or paralysis.

Fever is a symptom of several neurologic disorders as well as some systemic disorders that affect the nervous system. Neurologic complications of fever, such as febrile seizures and brain damage, are also considered.

Fever and Neurological Symptoms vs. Thresholds, 2024-2025



- There were 54 visits for fever and neurological disorders reported from sentinel sites within SERHA during EWs 1-13, 2025. This represented a 15% increase when compared to January– March 2024 (47 cases).
- Of the 54 visits reported, 39 (72%) were from KSA, 12 (22%) cases from STC, and 3(6%) were from STT.
- Fever & Neurological visits remained below the regional epidemic threshold levels despite transient increases in STC and STT.

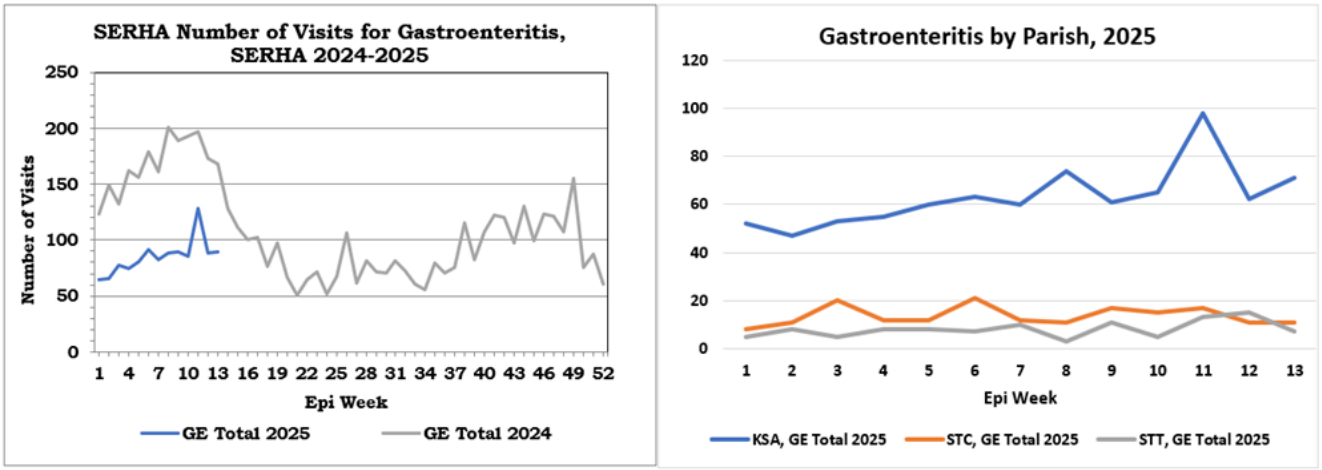
GASTROENTERITIS

Gastroenteritis (GE)

Gastroenteritis is defined as the acute onset of diarrhoea, presenting with three (3) or more loose/watery stools in a 24-hour period, with or without a fever, dehydration, vomiting, and/or visible blood.

- A total of 1104 gastroenteritis visits were reported between EWs 1-13 (January to March 2025). Although there was a transient increase during the quarter driven by increased visits in KSA, GE visits remained 49% below levels reported in the same period last year (2183).
- The >5 age group accounted for the majority of GE visits (56% or 616), while the <5 cohort represented 44% (488) of the reported visits.
- Cases remained below Alert and Epidemic thresholds in both age groups.
- KSA accounted for the majority of visits (74% or 821), while St. Catherine represented 16% (178) and St. Thomas represented 10% (105).

Gastroenteritis Visits in SERHA, 2022-2024



RESPIRATORY SURVEILLANCE

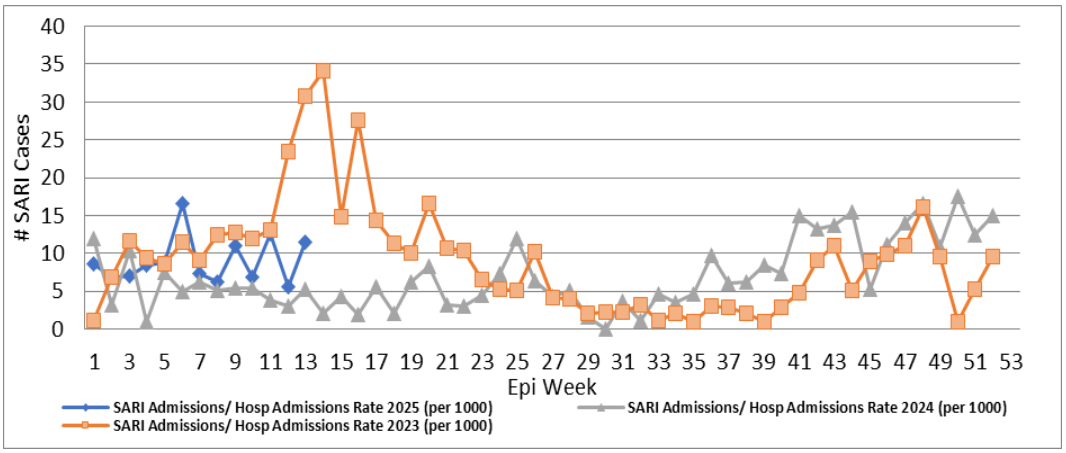
SEVERE ACUTE RESPIRATORY INFECTIONS (SARI)

Severe Acute Respiratory Infection (SARI) Case Definition:

- History of fever or measured fever of ≥38°C
  AND
- Cough with onset within the last ten days
  AND
- Severe enough to require hospital admission
- These are 3 official SARI sites across the region- KPH, UHWI and BHC.
- These SARI sites provide weekly reports to facilitate the monitoring of trends in the respiratory infections

- SARI admissions decreased during the Jan-Mar quarter when compared to the Oct-Dec 024 period.
- A total of 111 cases were admitted to the KPH, BHC, and the UHWI.
- Despite this decrease, SARI cases increased by 54% when compared to the same period in 2024.
- BHC accounted for the majority of cases (63, 57%), followed by KPH (35, 32%) and UHWI (13, 12%).

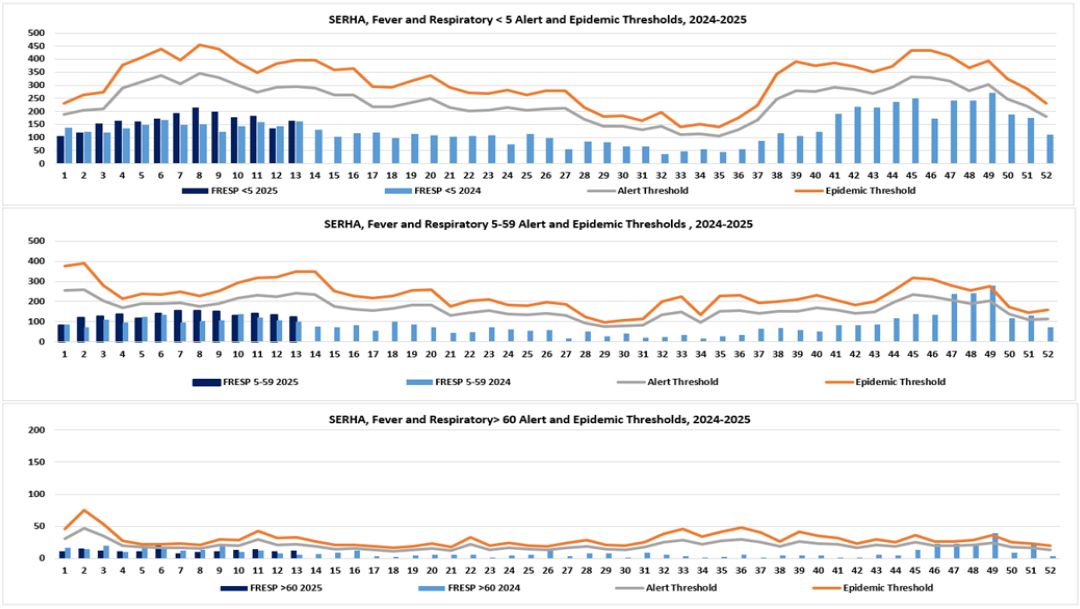
SARI Admissions as a Proportion of All Hospital Medical Admissions, 2023-2025



Fever and Respiratory /ILI (Syndromic Surveillance)

Fever and Respiratory/ Influenza Like Illness

- Defined as a temperature of ≥38 ° C/100.4°F (or recent history of fever) in a person with an acute respiratory infection, presenting with a cough and an onset within 10 days.
- Syndromic data captures fever and respiratory/ILI visits seen at the 21 designated sentinel sites throughout the region.



- A total of 4013 Fever and Respiratory visits were reported in Epi Weeks 1-13 (January-March 2025).
- The under 5 years age group accounted for 2151 visits (54%), followed by the 5-59 years (1698, 42%), and the greater than 60 years age group 164 visits (4%).
- Visits remained below threshold levels in all age groups during the quarter.

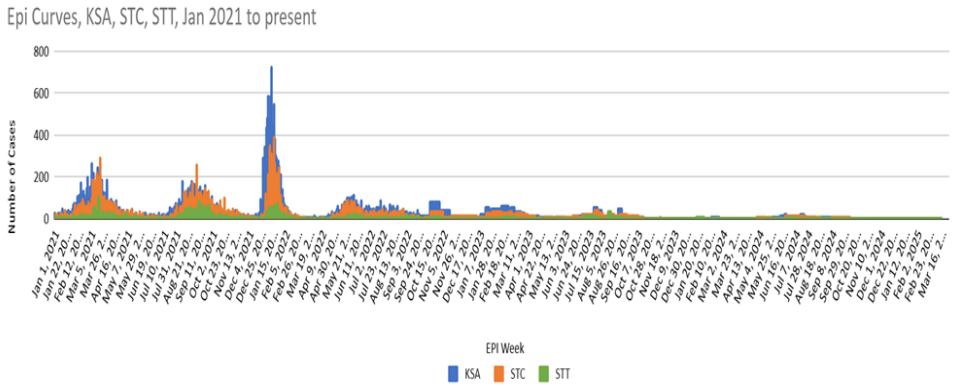
RESPIRATORY SURVEILLANCE

COVID-19 Update

- 42 new COVID19 cases were confirmed during the first quarter of 2025, a decrease of 28% from the October to December quarter of 2024. As immunity increases in the population, total infections continue to decrease year on year.
- As of March 31st, SERHA parishes had recorded a total of 75,193 cumulative COVID19 cases from the start of the pandemic in 2020, with KSA accounting for 53% (39,789), STC 39% (29,293), and STT 8% (6,111) of all cumulative cases.

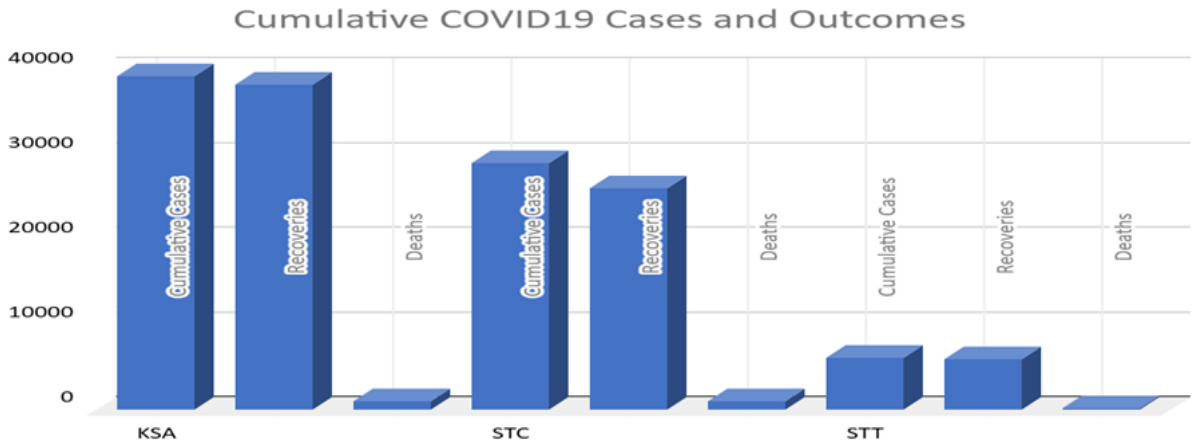
Public health parameters indicate a transition to endemicity of COVID19 in SERHA with surges occurring biannually at the start and middle of the year.

Covid 19 Epidemiology Curve, 2020-2025



The number of new and active COVID-19 cases remained low in 2024 & 2025.Recoveries across the region remained at 94.7% of all confirmed cases

Cumulative Covid 19 Case & Outcome by Parish, 2020-2025



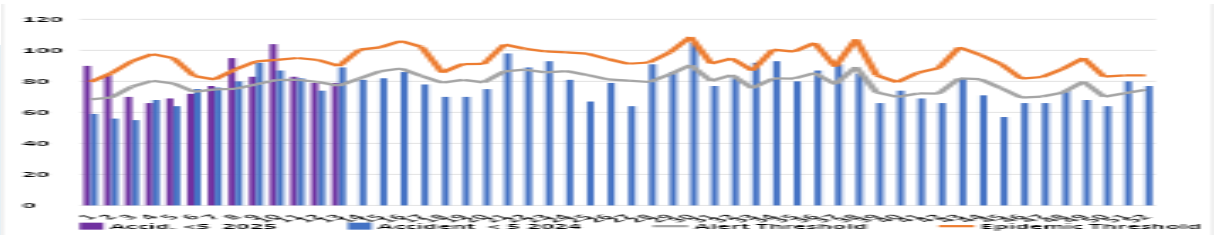
Violence and Injury Surveillance

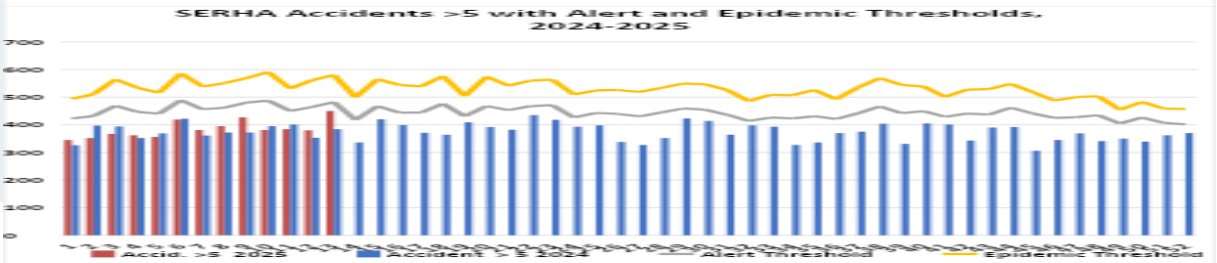
Accidents

Accident

Defined as an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.

Accidental Injuries vs. Thresholds in < 5 & > 5yrs, 2024-2025





- A total of 6050 accidents were reported from SERHA Sentinel sites in EWs (1-13); this represents 3% increase when compared to January– March 2024 (5855) .
- Patients 5 years and older accounted for 17% (1051) of accidental visits while the under 5 years cohort accounted for 83% (4999) of all accidental injuries notified.
- Kingston and St. Andrew accounted for 56% (3380), St. Catherine 28% (1689) and St. Thomas 16% (981).
- Accidental injuries fluctuated above the Epidemic Thresholds in the <5 cohort intermittently since the beginning of the year.

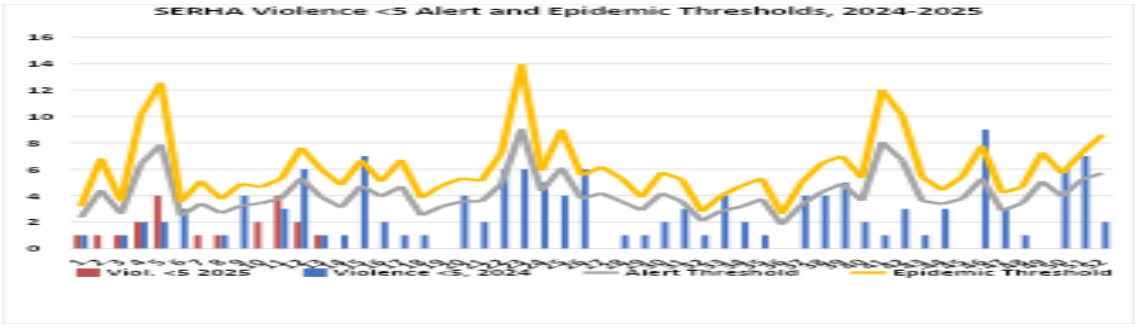
Violence

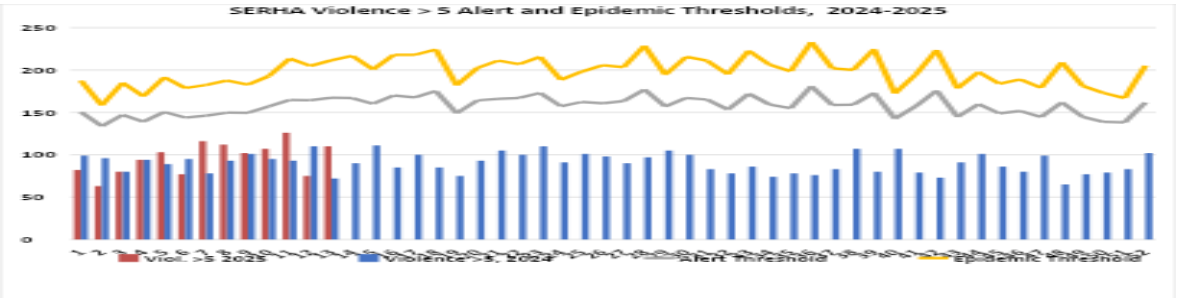
Violence

Defined as any injury for which the cause is intentional e.g. gunshot wounds, stab wounds, etc.

Violence-related injuries continue to affect children under 5 years old

Violence Related Injuries in < 5 and > 5 years old, 2024-2025





- A total of 1267 visits for violence-related injuries were reported in EWs 1-13 (January to March). Similar to the trend in accidental injuries, this equates to 4% increase when compared to the same period 2024 (1219).
- Kingston and St. Andrew accounted for 47% (593) of the total violence visits reported, while St. Catherine had 36% (460) and St. Thomas 17% (214).
- The number of violence-related visits fluctuated above the Alert Threshold in the <5 cohort during the quarter.

Key Terms and Facts

- Dengue Fever is an acute viral illness caused by the Dengue Virus which is transmitted by the bite of an infected Aedes aegypti mosquito.
- There are 4 known sero-types (Dengue Virus [DENV] types 1-4).
- Infection with a single sero-type provides lifelong immunity; subsequent infections with other serotypes increase the risk of severe disease.
- Dengue Fever is endemic in Jamaica with outbreaks occurring every 3-5 years.
- The last national Dengue outbreak started in September 2023 with DENV Type 2.
- The Surveillance Case Definition for Dengue (No warning signs) includes: acute onset of fever plus any 2 or more of the following: headache/retro-orbital pain, myalgia/ arthralgia, rash, haemorrhagic manifestations, nausea/vomiting and leukopenia
- Patients who have evidence of symptoms including severe abdominal pain or persistent vomiting, typically starting 1 week after onset of fever, should be assessed for more severe forms of illness (Dengue with warning signs).

Dengue Fever

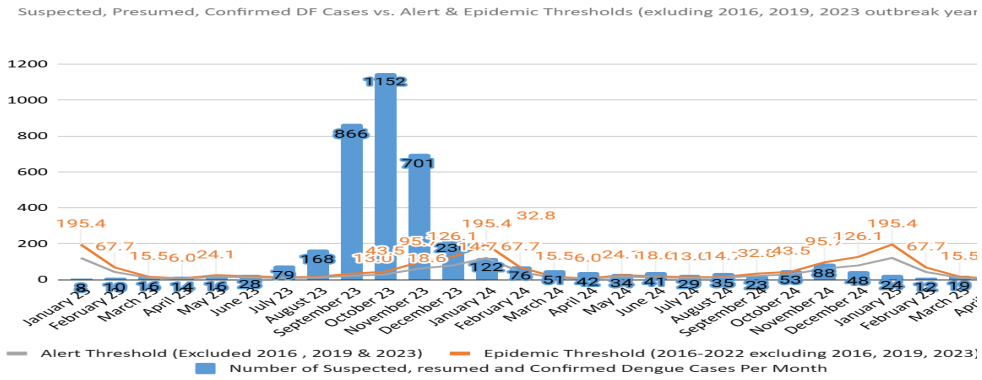
- DF cases remained low during the quarter when compared to cases at the peak of the outbreak in 2023. A total of 55 cases were reported in Jan-Mar 2025.

Table 1: Trends in SERHA DF cases as at 9th May 2025

	2023	2024	2025		
			Jan	Feb	Mar
Suspected, Presumed, Confirmed DF Cases	3326	662	24	12	19

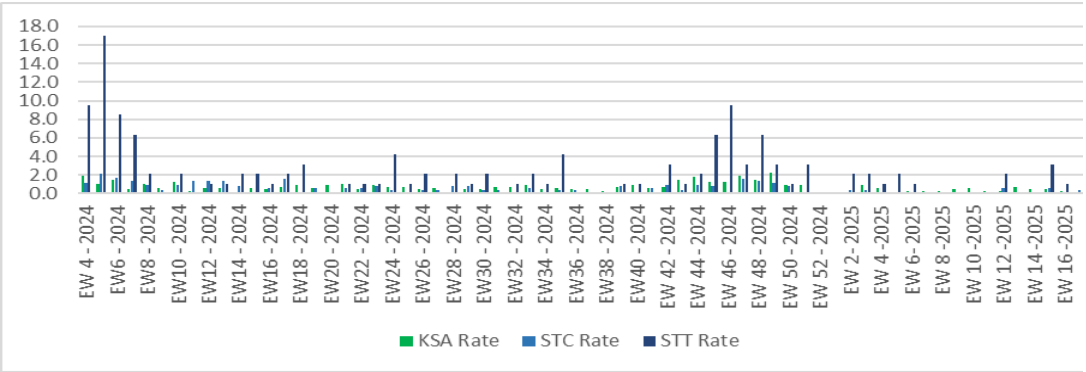
- Despite this decrease, cases again exceeded Epidemic Threshold (outbreak years excluded) in March 2025 - after having remained below epidemic levels between November 2024 to February 2025.

Suspected, Presumed, and Confirmed Dengue Cases vs. Alert and Epidemic Thresholds (Outbreak years excluded), 2023-2025



- While DF rates per 100,000 population remained low in KSA and STC, rates in STT showed intermittent upticks in the first quarter of the year.

Suspected, Presumed and Confirmed Dengue Cases/100,000 Population, 2024 – 2025



- **Gender distribution:** 60% of DF cases in 2025 have been in males.
- **Age distribution:** The paediatric population remains the most affected cohort, the 0-15 age groups accounting for 61% of the 2024 and 2025 cases.
- **Case Severity:** The majority of DF cases recorded since the start of the outbreak have been mild or DNWS.
- **Hospitalisation Status:** Hospitalizations for DF remained low in the reporting quarter across the region.

2025 Maternal Deaths

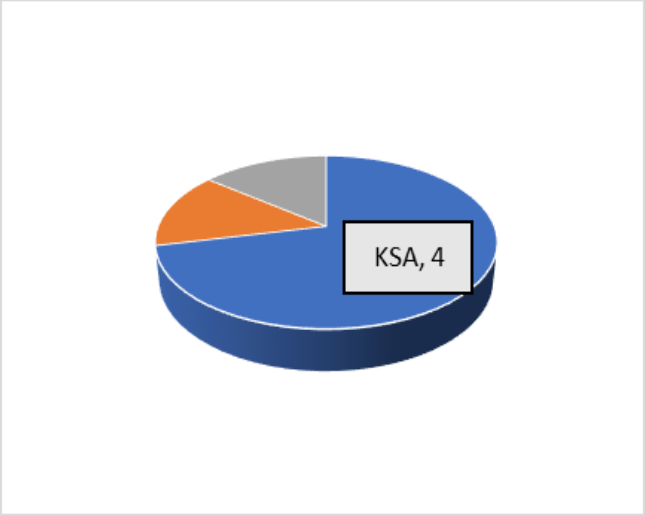
- A total of 6 maternal deaths were reported in quarter 1, including 1 mother from a Manchester/KSA address.
- KSA accounted for the majority of the 2025 cases thus far, with STC and STT reporting 1 death each. This is a commendable improvement for STC and a decrease from 6 deaths reported for the parish in the same period 2024.
- 2 of the Q1 deaths in 2025 occurred in community, including a 17-year-old mother who was found in a shallow grave in St. Ann. The remaining deaths occurred at the VJH (2), UHWI (1), and PMH (1).
- Notably there were no deaths occurring at the STH in Q1 2025, also an improvement from the 3 deaths reported at the facility during the similar period in 2024.
- When disaggregated by quarter, there was a 29% reduction in deaths in Q1 2025 as compared to Q1 2024.
- SERHA has conducted three maternal mortality reviews thus far in 2025 to identify gaps in quality of care.

SERHA Maternal Deaths, 2022– Mar 2025

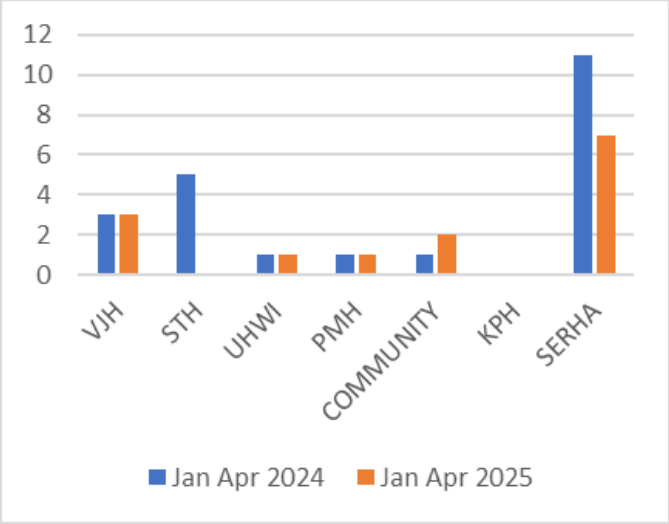
Parish	Jan-Mar 2025	2024	2023	2022
KSA	4*	10	13	10
STC	1	16	10	11
STT	1	3	1	2
SERHA Total	**6***	**29**	**24**	**23**

*Includes 1 mother from a listed Manchester/KSA address

2025 Maternal Deaths by Parish



SERHA Maternal Deaths by Facility, 2025



Tuberculosis

Tuberculosis Cases Notified (By Date of Onset)

Parish	Jan-Mar 2025	2024 Classification				2023		
		Notified	Confirmed	Discarded	Pending Ix	# Notified	# Confirmed	# Pending Ix
KSA	8	128*	49*	42	37 (29%)	86	41	8 (9%)
STC	4	44	15	23	6 (14%)	29	8	2 (7%)
STT	2	13	0	6	7** (54%)	10	3	1 (10%)
SERHA	**14**	**185**	**64 (35%)**	**71 (38%)**	**51 (27%)**	**125**	**52 (42%)**	**11 (9%)**

- A total of 14 suspected TB cases were notified across the region in the first quarter of 2025 with date of onset in 2025. Of these, 1 case has thus far been discarded and the other 13 remain under investigation.
- 185 cases were notified for the 2024 calendar year, an increase of 48% from 2023. Of the 2024 notified cases, 35% (64 cases) have been confirmed and 38% (71 cases) thus far discarded.
- The average age of notified cases was 42.7 years, affecting the economically productive cohorts of society.
- Males continue to be the most affected cohort, accounting for twice as many cases reported as compared to their female counterparts.
- Communities in central downtown Kingston remain the most affected.
- TB cases in correctional facilities continue to plague the region and consumes extensive resources from the KSA HD. Containment efforts are hindered by infrastructural challenges including overcrowding, poor ventilation and lighting. Collaboration continues with JCF stakeholders. A multi-stakeholder meeting and several capacity building initiatives were held during the quarter.

Notified Class 1 Diseases & Health Events

Highlights

- Class 1 Diseases and Health Events are high priority communicable diseases or health events with a potential for high morbidity or mortality
- Notified class 1 events are reported upon suspicion and trigger a fulsome investigation by the parish health department to allow for further classification; if confirmed further action is immediately initiated by the health team to ensure adequate management and containment of any public health treat.
- Not all notified class 1 events are confirmed cases. Notified cases are classified after through investigation by the Health Departments.

Health Event	Jan-Dec 2023	Jan-Dec 2024	Jan-25	Feb-25	Mar-25	YTD
Accidental Poisoning	192	206	13	20	14	47
AFP/Polio/GBS	9	9	0	0	0	0
Congenital Rubella	0	0	0	0	0	0
Dengue Fever (notified)	4205	956	36	19	28	83
Diphtheria	0	0	0	0	0	0
Encephalitis	1	0	0	0	0	0
ESAVI	28	30	1	1	0	2
Leprosy	3	0	1	0	0	1
Hepatitis	45	91	4	7	3	14
HIV/AIDS	242	254	19	4	30	53
HEI	163	25	5	0	2	7
Leptospirosis*	86	107	7	9	7	23
Malaria	22 (3 POS)	30 (5 POS)	2	0	0	2
Maternal Mortality	25	29	4	2	0	6
MDRO*	359	170	29	15	15	59
Measles/Fever & Rash	105	125	3	9	15	27
Meningitis	150	110	6	4	10	20
MIS-C	5	0	0	1	0	1
Needle Stick Injury	208	215	21	21	20	62
Ophthalmia Neonatorum	93	74	7	8	2	17
Pertussis-like Syndrome	1	1	0	0	0	0
Rheumatic Fever	1	2	0	0	0	0
Syphilis*	144	142	8	6	11	25
SEI/Congenital Syphilis	23	33	8	6	3	17
Tetanus	0	1	0	0	0	0
Tuberculosis	125	190	3	3	13	22
Typhoid Fever	0	0	0	0	0	0
Monkeypox	24 (3 POS)	4	0	0	0	0

*Not designated as a Class 1 event by the MOHW but reported as a key condition being monitored in SERHA