# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

# Weekly Spotlight

# **Disability**



Disability is part of being human and is integral to the human experience. It results from the interaction between health conditions such as dementia, blindness or spinal cord injury, and a range of environmental and

personal factors. Persons with disabilities are a diverse group, and factors such as sex, age, gender identity, sexual orientation, religion, race, ethnicity and their economic situation affect their experiences in life and their health needs. Persons with disabilities die earlier, have poorer health, and experience more limitations in everyday functioning than others.

# **Factors contributing to health inequities**

Health inequities arise from unfair conditions faced by persons with disabilities

**Structural factors:** Persons with disabilities experience ableism, stigma and discrimination in all facets of life, which affects their physical and mental health. Laws and policies may deny them the right to make their own decisions and allow a range of harmful practices in the health sector, such as forced sterilization, involuntary admission and treatment, and even institutionalization.

**Social determinants of health:** Poverty, exclusion from education and employment, and poor living conditions all add to the risk of poor health and unmet health care needs among persons with disabilities. Gaps in formal social support mechanisms mean that persons with disabilities are reliant on support from family members to engage in health and community activities, which not only disadvantages them but also their caregivers (who are mostly women and girls).

**Risk factors:** Persons with disabilities are more likely to have risk factors for non-communicable diseases, such as smoking, poor diet, alcohol consumption and a lack of physical activity. A key reason for this is that they are often left out of public health interventions.

**Health system:** Persons with disabilities face barriers in all aspects of the health system. For example, a lack of knowledge, negative attitudes and discriminatory practices among healthcare workers; inaccessible health facilities and information; and lack of information or data collection and analysis on disability, all contribute to health inequities faced by this group.

#### https://www.who.int/news-room/fact-sheets/detail/disability-and-health

# EPI WEEK 45



**Syndromic Surveillance** 

**Accidents** 

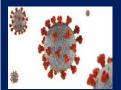
Violence

Pages 2-4



Class 1 Notifiable Events

Page 5



COVID-19

Page 6



Influenza

Page 7



**Dengue Fever** 

Page 8

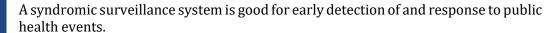


Research Paper

Page 9

SENTINEL SYNDROMIC SURVEILLANCE

# Sentinel Surveillance in Jamaica





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 – 42 to 45 of 2023

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

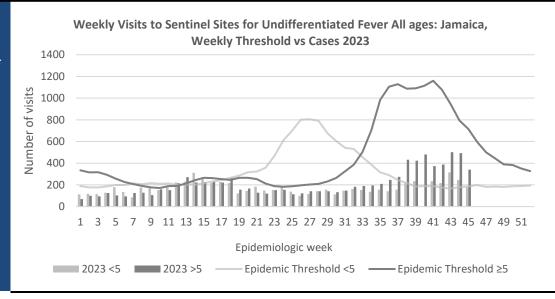
| Epi week | Kingston and Saint<br>Andrew | Saint Thomas | Saint Catherine | Portland | Saint Mary | Saint Ann | Trelawny | Saint James | Hanover | Westmoreland | Saint Elizabeth | Manchester | Clarendon |
|----------|------------------------------|--------------|-----------------|----------|------------|-----------|----------|-------------|---------|--------------|-----------------|------------|-----------|
| 2023     |                              |              |                 |          |            |           |          |             |         |              |                 |            |           |
| 42       | On                           | On           | Late            | On       | On         | On        | On       | On          | On      | On           | On              | On         | On        |
|          | Time                         | Time         | (T)             | Time     | Time       | Time      | Time     | Time        | Time    | Time         | Time            | Time       | Time      |
| 43       | On                           | On           | On              | Late     | On         | On        | On       | On          | On      | On           | On              | On         | On        |
|          | Time                         | Time         | Time            | (W)      | Time       | Time      | Time     | Time        | Time    | Time         | Time            | Time       | Time      |
| 44       | On                           | On           | On              | On       | On         | Late      | On       | On          | On      | On           | On              | On         | On        |
|          | Time                         | Time         | Time            | Time     | Time       | (T)       | Time     | Time        | Time    | Time         | Time            | Time       | Time      |
| 45       | On                           | On           | On              | On       | On         | On        | On       | On          | On      | On           | On              | On         | On        |
|          | Time                         | Time         | Time            | Time     | Time       | Time      | Time     | Time        | Time    | Time         | Time            | Time       | Time      |

# REPORTS FOR SYNDROMIC SURVEILLANCE

## UNDIFFERENTIATED FEVER

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









INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



#### FEVER AND NEUROLOGICAL

Temperature of >38°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).



### **FEVER AND HAEMORRHAGIC**

Temperature of  $>38^{\circ}C$ /100.40F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



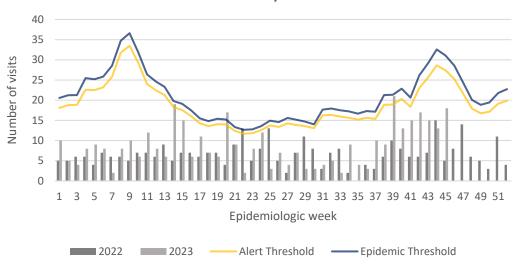
## FEVER AND JAUNDICE

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

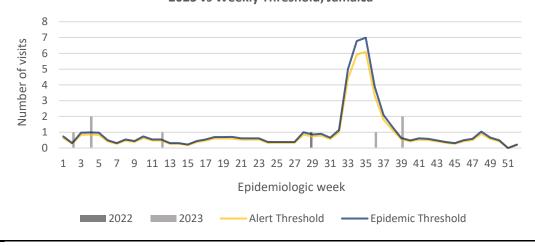
The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.



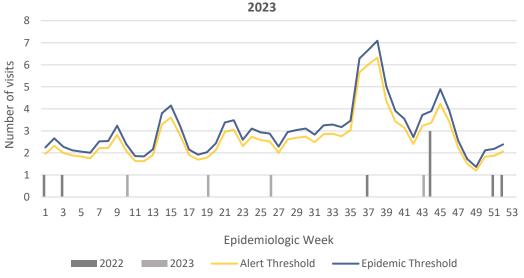
# Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2022 and 2023 vs. Weekly Threshold: Jamaica



# Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2022 and 2023 vs Weekly Threshold; Jamaica



Fever and Jaundice cases: Jamaica, Weekly Threshold vs Cases 2022 and





NOTIFICATIONS-All clinical sites



INVESTIGATION **REPORTS-** Detailed Follow up for all Class One Events



**HOSPITAL ACTIVE** SURVEILLANCE-30 sites. Actively pursued





## **ACCIDENTS**

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



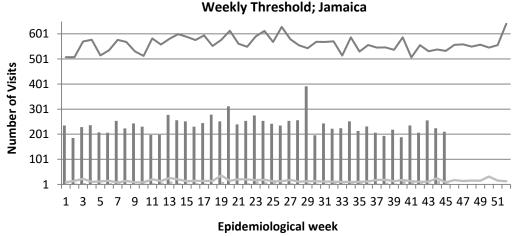
## Weekly visits to Sentinel Sites for Accidents by Age Group 2023 vs Weekly Threshold; Jamaica 1850 1650 1450 **Number of Visits** 1250 1050 850 650 450 250 50 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 **Epidemiological** weeks ≥5 y/o Cases <5 y/o Cases —</p> — Epidemic Threshold≥5 Epidemic Threshold<5

#### **VIOLENCE**

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



# Weekly visits to Sentinel Sites for Violence by Age Group 2023 vs



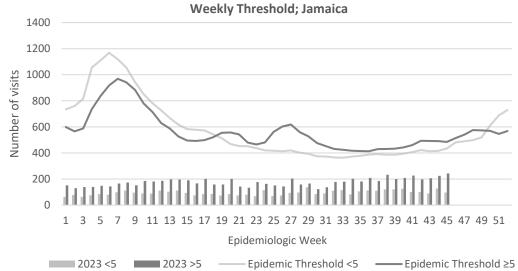
## **GASTROENTERITIS**

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



## Weekly visits to Sentinel Sites for Gastroenteritis All ages 2023 vs Weekly Threshold; Jamaica

<5 Epidemic Threshold -





NOTIFICATIONS-All clinical sites



INVESTIGATION **REPORTS-** Detailed Follow up for all Class One Events

**■**≥5 y.o ■ <5 y.o =



**HOSPITAL ACTIVE** SURVEILLANCE-30 sites. Actively pursued



**SENTINEL** REPORT- 78 sites. Automatic reporting

-≥5 Epidemic Threshold



# **CLASS ONE NOTIFIABLE EVENTS**

# Comments

|                                     |                         |                             |                       |                       | 0   |  |  |
|-------------------------------------|-------------------------|-----------------------------|-----------------------|-----------------------|---|--|--|
|                                     |                         |                             | Confirm               | ed YTD <sup>α</sup>   | AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for |  |  |
|                                     | CLASS 1 E               | VENTS                       | CURRENT<br>YEAR 2023  | PREVIOUS<br>YEAR 2022 |   |  |  |
|                                     | Accidental P            | oisoning                    | 271β                  | 186 <sup>β</sup>      | AFP should be 1/100,000   |  |  |
| 7                                   | Cholera                 |                             | 0                     | 0                     | population under 15 years old (6 to 7) cases annually.  |  |  |
| ON∕                                 | Dengue Hem              | orrhagic Fever <sup>γ</sup> | See Dengue page below | See Dengue page below | old (0 to 7) cases annually.  |  |  |
| ATI                                 | COVID-19 (              | SARS-CoV-2)                 | 3784                  | 55369                 | Pertussis-like syndrome   |  |  |
| NATIONAL /INTERNATIONAL<br>INTEREST | Hansen's Dis            | sease (Leprosy)             | 0                     | 1                     | and Tetanus are clinically  |  |  |
| INTI                                | Hepatitis B             |                             | 52                    | 26                    | confirmed classifications.  |  |  |
| AL /                                | Hepatitis C             |                             | 24                    | 2                     | —————————————————————————————————————   |  |  |
| ON                                  | HIV/AIDS                |                             | N/A                   | N/A                   | Fever data include Dengue   |  |  |
| ATI                                 | Malaria (Imp            | ported)                     | 3                     | 2                     | related deaths;   |  |  |
| Z                                   | Meningitis              |                             | 25                    | 18                    | <sup>δ</sup> Figures include all deaths   |  |  |
|                                     | Monkeypox               |                             | 3                     | 18                    | associated with pregnancy   |  |  |
| EXOTIC/<br>UNUSUAL                  | Plague                  |                             | 0                     | 0                     | reported for the period.  |  |  |
| TY TY                               | Meningococo             | cal Meningitis              | 0                     | 0                     | <sup>ε</sup> CHIKV IgM positive cases   |  |  |
| H IGH<br>RBIDIT                     | Neonatal Tet            | anus                        | 0                     | 0                     | <sup>θ</sup> Zika PCR positive cases  |  |  |
| H IGH<br>MORBIDITY,<br>MORTALITY    | Typhoid Fev             | er                          | 0                     | 0                     | β Updates made to prior   |  |  |
| M M                                 | Meningitis H            | /Flu                        | 0                     | 0                     | weeks.  |  |  |
|                                     | AFP/Polio               |                             | 0                     | 0                     | <sup>α</sup> Figures are cumulative   |  |  |
|                                     | Congenital R            | ubella Syndrome             | 0                     | 0                     | totals for all  |  |  |
| 70                                  | Congenital S            | yphilis                     | 0                     | 0                     | epidemiological weeks year to date.   |  |  |
| MES                                 | Fever and               | Measles                     | 0                     | 0                     |   |  |  |
| SPECIAL PROGRAMM                    | Rash                    | Rubella                     | 0                     | 0                     |   |  |  |
| 908                                 | Maternal Dea            | nths <sup>δ</sup>           | 43                    | 60                    |   |  |  |
| L PR                                | Ophthalmia l            | Neonatorum                  | 119                   | 125                   |   |  |  |
| CIA                                 | Pertussis-like          | syndrome                    | 0                     | 0                     |   |  |  |
| SPE                                 | Rheumatic F             | ever                        | 0                     | 0                     |   |  |  |
|                                     | Tetanus                 |                             | 0                     | 2                     |   |  |  |
|                                     | Tuberculosis            |                             | 39                    | 33                    |   |  |  |
|                                     | Yellow Fever            |                             | 0                     | 0                     |   |  |  |
|                                     | Chikungunya             | 3.<br>                      | 0                     | 0                     |   |  |  |
|                                     | Zika Virus <sup>θ</sup> |                             |                       | 0                     | NA- Not Available   |  |  |
|                                     |                         |                             |                       |                       |   |  |  |







INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



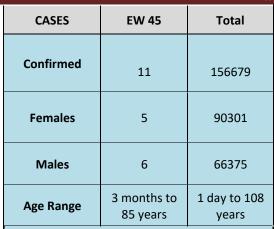
HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

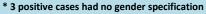


# **COVID-19 Surveillance Update**

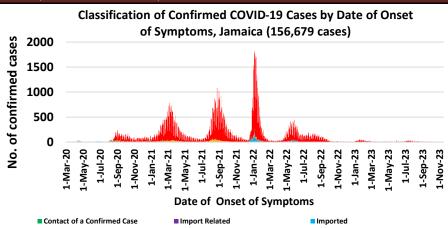
March 10, 2020 - EW 45, 2023

Local Transmission (Not Epi Linked)





<sup>\*</sup> PCR or Antigen tests are used to confirm cases



# COVID-19 Outcomes

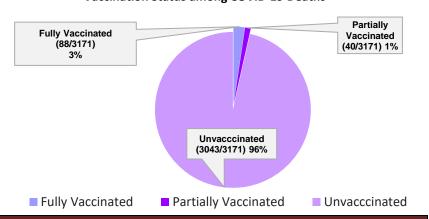
| Outcomes                      | EW 45 | Total  |  |
|-------------------------------|-------|--------|--|
| ACTIVE *2 weeks*              |       | 18     |  |
| DIED – COVID<br>Related       | 0     | 3733   |  |
| Died - NON<br>COVID           | 0     | 349    |  |
| Died - Under<br>Investigation | 0     | 254    |  |
| Recovered and discharged      | 1     | 103221 |  |
| Repatriated                   | 0     | 93     |  |
| Total                         |       | 156679 |  |

<sup>\*</sup>Vaccination programme March 2021 – YTD

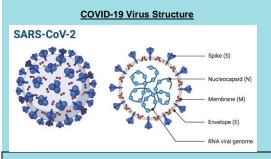
# 3171 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths

**■** Under Investigation

**■ Workplace Cluster** 



# COVID-19 Parish Distribution and Global Statistics



| COVID-19 WHO Global Statisticts EW42-EW45 |                 |        |  |  |  |  |
|---|-----------------|--------|--|--|--|--|
| Epi Week                                  | Confirmed Cases | Deaths |  |  |  |  |
| 42  | 134,771         | 756    |  |  |  |  |
| 43  | 120,656         | 636    |  |  |  |  |
| 44  | 135,890         | 584    |  |  |  |  |
| 45  | 128,082         | 480    |  |  |  |  |
| Total (4weeks)                            | 519,399         | 2,456  |  |  |  |  |

COVID19 Cases by Parish Total Cases Legend Confirmed COVID19 8953 - 17999 Cases by Parish 18000 - 28193 5225 4028 - 5992 28194 - 41781 5993 - 8952 Parishes 8952 EW 45 Cases COVID19 Cases by Parish Date Prepared: November 23, 2023

6 NOTIFICATIONS-All clinical sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



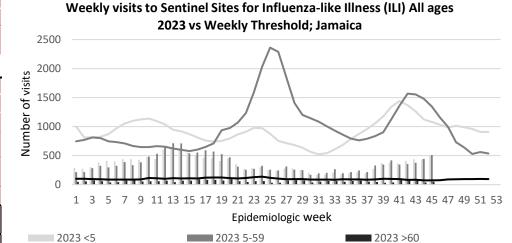
<sup>\*</sup> Total as at current Epi week

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 45

November 05 – November 11, 2023 Epidemiological Week 45

|                                  | EW 45 | YTD |
|----------------------------------|-------|-----|
| SARI cases                       | 13    | 501 |
| Total Influenza positive Samples | 0     | 191 |
| Influenza A                      | 0     | 27  |
| H3N2                             | 0     | 1   |
| H1N1pdm09                        | 0     | 25  |
| Not subtyped                     | 0     | 1   |
| Influenza B                      | 0     | 164 |
| B lineage not determined         | 0     | 2   |
| B Victoria                       | 0     | 162 |
| Parainfluenza                    | 0     | 1   |
| Adenovirus                       | 0     | 2   |
| RSV                              | 1     | 19  |



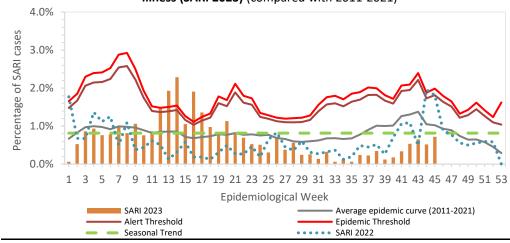
## **Epi Week Summary**

During EW 45, thirteen (13) SARI admissions were reported.

# Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2023) (compared with 2011-2021)

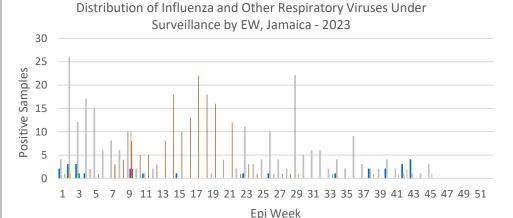
Epidemic Threshold 5-59

Epidemic Threshold <5



# Caribbean Update EW 45

Caribbean: Influenza activity has increased in the last two EWs to moderate levels. During this period, the predominant viruses have been influenza A(H1N1)pdm09, followed by influenza A(H3N2) and influenza B/Victoria. RSV activity has also increased to moderate levels. SARS-CoV-2 activity, although continuing to decline, remains at moderate levels. Cases of ILI and SARI have remained stable in the last four EWs, with a higher proportion of SARI cases associated with SARS-CoV-2. In Jamaica, SARS-CoV-2 activity continues to decline with low levels of circulation, while RSV and influenza continue to rise in the last two EWs, with pneumonia levels at the threshold of moderate activity.



■A(H1N1)pdm09 ■A(H3N2) ■SARS-CoV-2 ■Parainfluenza ■A not subtyped ■B lineage non-determined ■RSV ■B Victoria ■Adenovirus Positive

7 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events





SENTINEL REPORT- 78 sites. Automatic reporting

- Epidemic Threshold ≥60

# Dengue Bulletin

November 05- November 11, 2023 Epidemiological Week 45

Epidemiological Week 45



# Dengue Cases by Year: 2004-2023, Jamaica 10000 Number of cases 8000 6000 4000 2000 0 2013 2014 Year ■ Total Suspected Confirmed DF

# Reported suspected and confirmed dengue with symptom onset in week 45 of 2023

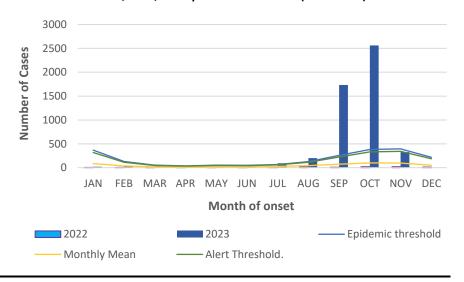
|  | 2023* |      |  |  |  |
|--|-------|------|--|--|--|
|  | EW 45 | YTD  |  |  |  |
| Total Suspected &<br>Confirmed Dengue<br>Cases | 150   | 5110 |  |  |  |
| Lab Confirmed Dengue cases                     | 4     | 1154 |  |  |  |
| CONFIRMED Dengue Related Deaths                | 0     | 2    |  |  |  |

#### Symptoms of Dengue fever Febrile phase Critical phase sudden-onset fever hypotension pleural effusion mouth and nose ascites bleeding gastrointestinal bleeding muscle and joint pains Recovery phase altered level of vomiting consciousness rash itching diarrhea slow heart rate

# **Points to note:**

- \*Figure as at November 23 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

# Suspected dengue cases for 2022 and 2023 versus monthly mean, alert, and epidemic thresholds (2007-2022)



NOTIFICATIONS-All clinical



**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events



**HOSPITAL ACTIVE** SURVEILLANCE-30 sites. Actively pursued





# **RESEARCH PAPER**

#### **Abstract**

NHRC\_22\_P15

Surgical procedures in the elderly at the University Hospital of the West Indies between 2016 and 2021

Toppin P<sup>1</sup>, Reid S<sup>1</sup>, Roberts P<sup>1</sup>, Tennant I<sup>1</sup>, Eldemire-Shearer D<sup>2</sup>

<sup>1</sup>Department of Surgery, Radiology, Anaesthesia and Intensive Care, University of the West Indies, Mona, <sup>2</sup>Department of Community Health and Psychiatry, University of the West Indies, Mona

**Objectives:** To evaluate changes in the pattern of elderly patients undergoing surgery at the UHWI between 2016 and 2021, emphasising the effect of the SARS-COV-2 pandemic.

**Methods:** Data were extracted from the database in the main operating theatre of the UHWI. Cases done between January 1, 2016, and December 31, 2021, were included. The post-pandemic period was defined as after February 2020. Patients over 64 years were classified as elderly, and those older than 79 as very elderly. Categorical data were compared using the Chi-squared test and continuous data using the Wilcoxon rank sum test.

**Results:** 21,972 cases were included, 16,872 in the pre-pandemic period and 5,913 in the post-pandemic. Elderly and very elderly patients made up 23% and 5.4% of the patients, respectively. There was a fall in the number of cases done post-pandemic. However, the proportion of elderly and very elderly patients did not change (p = 0.14, p = 0.15 respectively). The percentage of elderly patients undergoing emergency surgery increased (33% to 43%, p < 0.01) post-pandemic. The percentage of elderly female patients also increased post-pandemic (53% to 56%, p = 0.03). The number of hernia repairs done post-pandemic fell significantly, amputations, colectomies and hip replacements remained common especially in patients over 79.

**Conclusion:** The elderly and very elderly form a disproportionately large subset of surgical patients at the UHWI, and the SARS-COV-2 pandemic significantly impacted this group. The overall number, sex and procedure distribution changed post-pandemic.



The Ministry of Health and Wellness 24-26 Grenada Crescent Kingston 5, Jamaica Tele: (876) 633-7924

Email: surveillance@moh.gov.jm

9 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



pursued

