Spinal Cord Injury (SCI)

Key facts

- Every year, around the world, between 250,000 and 500,000 people suffer a spinal cord injury (SCI).
- The majority of spinal cord injuries are due to preventable causes such as road traffic crashes, falls or violence.
- People with a spinal cord injury are two to five times more likely to die prematurely than people without a spinal cord injury, with worse survival rates in low- and middle-income countries.
- Spinal cord injury is associated with lower rates of school enrollment and economic participation, and it carries substantial individual and societal costs.

Demographic trends

Males are most at risk in young adulthood (20-29 years) and older age (70+). Females are most at risk in adolescence (15-19) and older age (60+). Studies report male-to-female ratios of at least 2:1 among adults, sometimes much higher.

Health, economic and social consequences

Spinal cord injury is associated with a risk of developing secondary conditions that can be debilitating and even life-threatening—e.g. deep vein thrombosis, urinary tract infections, muscle spasms, osteoporosis, pressure ulcers, chronic pain, and respiratory complications. Acute care, rehabilitation services and ongoing health maintenance are essential for prevention and management of these conditions.

Spinal cord injury may render a person dependent on caregivers. Assistive technology is often required to facilitate mobility, communication, self-care or domestic activities. An estimated 20-30% of people with spinal cord injury show clinically significant signs of depression, which in turn has a negative impact on improvements in functioning and overall health.

Misconceptions, negative attitudes and physical barriers to basic mobility result in the exclusion of many people from full participation in society. Children with spinal cord injury are less likely than their peers to start school, and once enrolled, less likely to advance. Adults with spinal cord injury face similar barriers to economic participation, with a global unemployment rate of more than 60%.

Existing data do not allow for global cost estimates of spinal cord injury, but they do offer a general picture:

- The level and severity of the injury have an important influence on costs—e.g. tetraplegia vs. paraplegia incur higher costs.
- Direct costs are highest in the first year after spinal cord injury onset and then decrease significantly over time.
- Indirect costs, in particular lost earnings, often exceed direct costs.
- Much of the cost is borne by people with spinal cord injury.
- Costs of spinal cord injury are higher than those of comparable conditions such as dementia, multiple sclerosis and cerebral palsy.

For more information on spinal cord injury please visit: https://www.who.int/news-room/fact-sheets/detail/spinal-cord-injury
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 - 5 to 8 of 2020**

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°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.

**KEY**

VARIATIONS OF BLUE SHOW CURRENT WEEK

**Weekly Visit to Sentinel Sites for Undifferentiated Fever All ages 2020 vs Weekly Threshold; Jamaica**

- 2020 <5
- 2020 ≥5
- Epidemic Threshold <5
- Epidemic Threshold ≥5

**NOTIFICATIONS**

- 2 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°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°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.

FEVER AND JAUNDICE
Temperature of >38°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.
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.

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

**Weekly visits to Sentinel Sites for Accidents by Age Group 2020 vs Weekly Threshold; Jamaica**

**Weekly visits to Sentinel Sites for Violence by Age Group 2020 vs Weekly Threshold; Jamaica**

**Weekly visits to Sentinel Sites for Gastroenteritis All ages 2020 vs Weekly Threshold; Jamaica**
# CLASS ONE NOTIFIABLE EVENTS

<table>
<thead>
<tr>
<th>CLASS 1 EVENTS</th>
<th>Confirmed YTD</th>
<th>COMMENTS</th>
</tr>
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<tbody>
<tr>
<td><strong>CURRENT YEAR 2020</strong></td>
<td><strong>PREVIOUS YEAR 2019</strong></td>
<td></td>
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<tr>
<td>Accidental Poisoning</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Cholera</td>
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<td>0</td>
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<tr>
<td>Dengue Hemorrhagic Fever*</td>
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<td>NA</td>
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<tr>
<td>Hansen’s Disease (Leprosy)</td>
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<tr>
<td>Hepatitis B</td>
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</tr>
<tr>
<td>Hepatitis C</td>
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</tr>
<tr>
<td>HIV/AIDS</td>
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<td>Malaria (Imported)</td>
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<tr>
<td>Meningitis (Clinically confirmed)</td>
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<td>1</td>
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<tr>
<td><strong>EXOTIC/UNUSUAL</strong></td>
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<tr>
<td>Plague</td>
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<td>Meningococcal Meningitis</td>
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<tr>
<td>Neonatal Tetanus</td>
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<td>Typhoid Fever</td>
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</tr>
<tr>
<td>Meningitis H/Flu</td>
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<td><strong>HIGH MORBIDITY/ MORTALITY</strong></td>
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<tr>
<td>AFP/Polio</td>
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<td>Congenital Rubella Syndrome</td>
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<td>Congenital Syphilis</td>
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<td>Fever and Rash</td>
<td>Measles</td>
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<tr>
<td></td>
<td>Rubella</td>
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<td>Maternal Deaths**</td>
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<td>Ophthalmia Neonatorum</td>
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<td>Pertussis-like syndrome</td>
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<td>Rheumatic Fever</td>
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<td>Tetanus</td>
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<td>Tuberculosis</td>
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<tr>
<td>Yellow Fever</td>
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<td>0</td>
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<tr>
<td>Chikungunya***</td>
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<td>0</td>
</tr>
<tr>
<td>Zika Virus****</td>
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</tr>
</tbody>
</table>

**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.**

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* Dengue Hemorrhagic Fever data include Dengue related deaths;

** Figures include all deaths associated with pregnancy reported for the period. * 2019 YTD figure was updated.

*** CHIKV IgM positive cases

**** Zika PCR positive cases

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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
Epi Week Summary

During EW 08, 7 (seven) SARI admissions were reported.

23.5% positivity for EW 08

Caribbean Update EW 08

Overall, influenza activity is elevated in the sub-region. In Cuba, influenza activity increased with influenza A and B viruses co-circulating. Influenza activity continued increased in Belize with influenza A(H1N1)pdm09 and influenza B viruses co-circulating. All the French Territories are in the epidemic phase with a continued increase in influenza activity observed in Guadeloupe and Martinique. In Saint-Barthélemy influenza activity was stable. In the Dominican Republic, influenza activity slightly increased with influenza A(H1N1)pdm09 predominance and influenza B/Yamagata co-circulating; In Saint Lucia, influenza-like illness is above the epidemic threshold with influenza A(H1N1)pdm09 virus circulating in recent weeks.
**NOTIFICATIONS-** All clinical sites

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

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

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**Dengue Bulletin**

February 16 – February 22, 2020  
Epidemiological Week 08

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**Reported suspected and confirmed dengue with symptom onset in week 8 of 2020**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Suspected Dengue Cases</strong></td>
<td>EW 8</td>
</tr>
<tr>
<td><strong>Lab Confirmed Dengue cases</strong></td>
<td>0**</td>
</tr>
<tr>
<td><strong>CONFIRMED Dengue Related Deaths</strong></td>
<td>0**</td>
</tr>
</tbody>
</table>

**Symptoms of Dengue fever**

- Febirile phase: sudden-onset fever, headache
- Critical phase: hypotension, pleural effusion, ascites, gastrointestinal bleeding
- Recovery phase: altered level of consciousness, seizures, itching, slow heart rate

**Suspected dengue cases for 2018, 2019, and 2020 versus monthly mean, alert, and epidemic thresholds**

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**Points to note:**

- ** figure as at February 27, 2020
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

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**Dengue Cases by Year: 2004-2020, Jamaica**

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**Number of Cases**

- **Total Suspected**
- **Confirmed DF**

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**Number of Cases**

- **2018 Suspected Dengue**
- **2019 Suspected Dengue**
- **2020**
- **Epidemic threshold**
- **Alert Threshold**
- **Monthly mean**

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**Suspected dengue cases for 2018, 2019, and 2020 versus monthly mean, alert, and epidemic thresholds**

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**Month of onset**

- **January**
- **February**
- **March**
- **April**
- **May**
- **June**
- **July**
- **August**
- **September**
- **October**
- **November**
- **December**
ABSTRACT

Evidence of the severity of stress and anxiety among Jamaican junior track and field athletes

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Research is suggesting that elite athletes are vulnerable to and struggle with mental health problems. **Objectives:** The current study aimed to determine (I) the severity of stress and anxiety symptoms in elite Jamaican junior track and field athletes and (II) the association of stress and anxiety levels with performance in competition.

**Methods:** Seventy-eight junior athletes included 37 females (mean age: 15.8 ± 2.1 years) and 41 males (mean age: 16.7 ± 1.7 years) were examined twice during the competitive phase of the athletic season. Measurements included perceived stress, somatic trait anxiety, cognitive trait anxiety and competition performance data. Measures were averaged to determine levels. Pearson correlation was used to examine the relationships between levels of stress/anxiety and performance.

**Results:** The findings indicated that approximately 30% of junior track and field athletes perceived that they were stressed and experienced symptoms of anxiety. With regards to gender, no significant differences were noted in perceived stress and sport anxiety scores, although female athletes scored higher on both scales. There were significant negative correlations between performance data and the levels of stress (r = -0.47, p < 0.01), somatic trait anxiety (r = -0.44, p < 0.01) and cognitive trait anxiety (r = -0.49, p < 0.01).

**Conclusion:** The findings of the current study substantiate research which suggests that elite athletes are vulnerable to and struggle with mental health problems, in particular stress and anxiety. The study showed that stress and anxiety may have debilitating effects on competition performance results.