Dracunculiasis (Guinea-worm disease)

Key facts

- Dracunculiasis is a crippling parasitic disease on the verge of eradication, with 54 human cases reported in 2019.
- From the time infection occurs, it takes between 10–14 months for the transmission cycle to complete until a mature worm emerges from the body.
- The parasite is transmitted mostly when people drink stagnant water contaminated with parasite-infected water fleas.
- Dracunculiasis was endemic in 20 countries in the mid-1980s.
- The total of 54 cases in 2019 were reported from four countries: Angola (1 case), Chad (48 cases), South Sudan (4 cases) and Cameroon (1 case, likely imported from Chad).

Dracunculiasis is rarely fatal, but infected people become non-functional for weeks. It affects people in rural, deprived and isolated communities who depend mainly on open surface water sources such as ponds for drinking water.

Scope of the problem: During the mid-1980s an estimated 3.5 million cases of dracunculiasis occurred in 20 countries worldwide, 17 countries of which were in Africa. The number of reported cases fell to fewer than 10,000 cases for the first time in 2007, dropping further to 542 cases (2012). Over the past eight years, human cases have stayed at double digits (28 in 2018 and a slightly higher number of 54 human cases in 2019).

Transmission, life-cycle and incubation period: About a year after infection, a painful blister forms – 90% of the time on the lower leg – and one or more worms emerge accompanied by a burning sensation. To soothe the burning pain, patients often immerse the infected part of the body in water. The worm(s) then releases thousands of larvae (baby worms) into the water. These larvae reach the infective stage after being ingested by tiny crustaceans or copepods, also called water fleas.

People swallow the infected water fleas when drinking contaminated water. The water fleas are killed in the stomach but the ineffective larvae are liberated. They then penetrate the wall of the intestine and migrate through the body. The fertilized female worm (which measures 60–100 cm long) migrates under the skin tissues until it reaches its exit point, usually at the lower limbs, forming a blister or swelling from which it eventually emerges. The worm takes 10–14 months to emerge after infection.

https://www.who.int/news-room/fact-sheets/detail/dracunculiasis-(guinea-worm-disease)
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.

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

REPORTS FOR SYNDROMIC SURVEILLANCE
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
### CLASS ONE NOTIFIABLE EVENTS

<table>
<thead>
<tr>
<th>CLASS 1 EVENTS</th>
<th>Confirmed YTD</th>
<th>Comments</th>
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<tbody>
<tr>
<td></td>
<td>CURRENT YEAR 2020</td>
<td>PREVIOUS YEAR 2019</td>
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<tr>
<td><strong>NATIONAL/INTERNATIONAL INTEREST</strong></td>
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<td>Accidental Poisoning</td>
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<td>Cholera</td>
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<td>Dengue Hemorrhagic Fever*</td>
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<td>Hansen’s Disease (Leprosy)</td>
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<td><strong>EXOTIC/UNUSUAL</strong></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>
<td>Meningitis H/Flu</td>
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<td><strong>HIGH MORBIDITY/MORTALITY</strong></td>
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<td>AFP/Polio</td>
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<td>Congenital Syphilis</td>
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<td>Fever and Rash</td>
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<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>Tuberculosis</td>
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<td>Yellow Fever</td>
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<td>Chikungunya***</td>
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<tr>
<td><em>Zika virus</em>***</td>
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</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.**

**Pertussis-like syndrome and Tetanus are clinically confirmed classifications.**

**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 ACTIVITY**

**SURVEILLANCE-** 30 sites. Actively pursued

**SENTINEL REPORT-** 78 sites. Automatic reporting
NATIONAL SURVEILLANCE UNIT
INFLUENZA REPORT

August 23, 2020 - August 29, 2020  Epidemiological Week 35

Epi Week Summary

During EW 35, 10 (ten) SARI admissions were reported.

Caribbean Update EW 35

Caribbean: Influenza and other respiratory virus activity remained low in the subregion. In Haiti and Jamaica SARI activity continue at epidemic levels.

 EW 35  YTD
SARI cases  10  420
Total Influenza positive Samples  0  69
Influenza A  0  45
H3N2  0  4
H1N1pdm09  0  38
Not subtyped  0  3
Influenza B  0  24
Parainfluenza  0  0

Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2020 vs Weekly Threshold; Jamaica

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2020) (compared with 2011-2019)

CARIBBEAN REPORT EPIW 35

Caribbean: Influenza and other respiratory virus activity remained low in the subregion. In Haiti and Jamaica SARI activity continue at epidemic levels.
**Dengue Bulletin**

** Reported suspected and confirmed dengue with symptom onset in week 35 of 2020 **

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<td>EW 35</td>
<td>YTD</td>
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<tr>
<td>Total Suspected Dengue Cases</td>
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<tr>
<td>Lab Confirmed Dengue cases</td>
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<tr>
<td>CONFIRMED Dengue Related Deaths</td>
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</tbody>
</table>

**Symptoms of Dengue fever**

- **Fever**
  - Sudden-onset fever
- **Headache**
- **Mouth and nose bleeding**
- **Muscle and joint pain**
- **Vomiting**
- **Rash**
- **Diarrhea**

**Critical phase**

- Hypotension
- Pleural effusion
- Ascites
- Gastrointestinal bleeding

**Recovery phase**

- Altered level of consciousness
- Seizures
- Itching
- Slow heart rate

**Points to note:**

- ** figure as at September 9, 2020
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

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

- **2018 suspected dengue**
- **2019 Suspected Dengue**
- **2020**
- **Epidemic threshold**
- **Alert Threshold**
- **Monthly mean**
Abstract
Knowledge and Practice Related to Lifestyle Among Adults with Diabetes and Hypertension
Colleen Campbell¹, Delani Campbell¹, Khadijah Estick¹, Mario McCallum¹, Martin McIntosh¹, Jourdain Masters¹, Alliyah Mentor¹, Yakeev Morris¹, Ta’Mal Phillip¹, Gabriella Ranjit¹, Orlando Smith¹, Gayan White,¹ Norman Waldron²
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Aim: To determine the level of knowledge and assess the lifestyle practices of adult patients with Diabetes and/or Hypertension attending the primary health care clinics in Jamaica.

Background: Diabetes and Hypertension are among the leading causes of preventable morbidity and related disability worldwide. The shift in disease burden from infectious diseases to non-communicable diseases has been attributed to dietary and physical activity changes.

Method: In this cross-sectional study using 150 randomly selected adults from primary health care centres in seven parishes of Jamaica. A 69-item interviewer-administered questionnaire was used. The questions measured knowledge and lifestyle practices related to diet, smoking, exercise and alcohol consumption.

Results: The majority (%) of the sample was female (76%) and most persons were within the age group of 56 years or over (68.6%). The mean knowledge score of exercise was 4.7 (SD 1.2) with a score range of 1 to 6. No statistical differences presented in mean knowledge of exercise by socioeconomic and demographic characteristics. Nine of the ten questions assessing knowledge of diet were answered correctly by the majority (50.7% - 93.3%). The mean knowledge score for alcohol consumption and smoking was 5.5 (SD 0.9) and 2.9 (SD 0.3), respectively. Just over a half (52.3%) of the sample reported exercising (52.3%) and consuming sugar-sweetened beverages (53%). Very little reported drinking alcohol in the last three months (10.7%) and a minority (4.7%) of the sample reported that they are currently smoking.

Conclusion: Mean knowledge scores for exercise, alcohol consumption and smoking were relatively high, while lifestyle practices among participants was relatively low. We recommend further research to assess the facilitators and barriers to adopting lifestyle changes among Jamaican adults.

Keywords: Knowledge, Lifestyle, Practice, Diabetes, Hypertension

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