



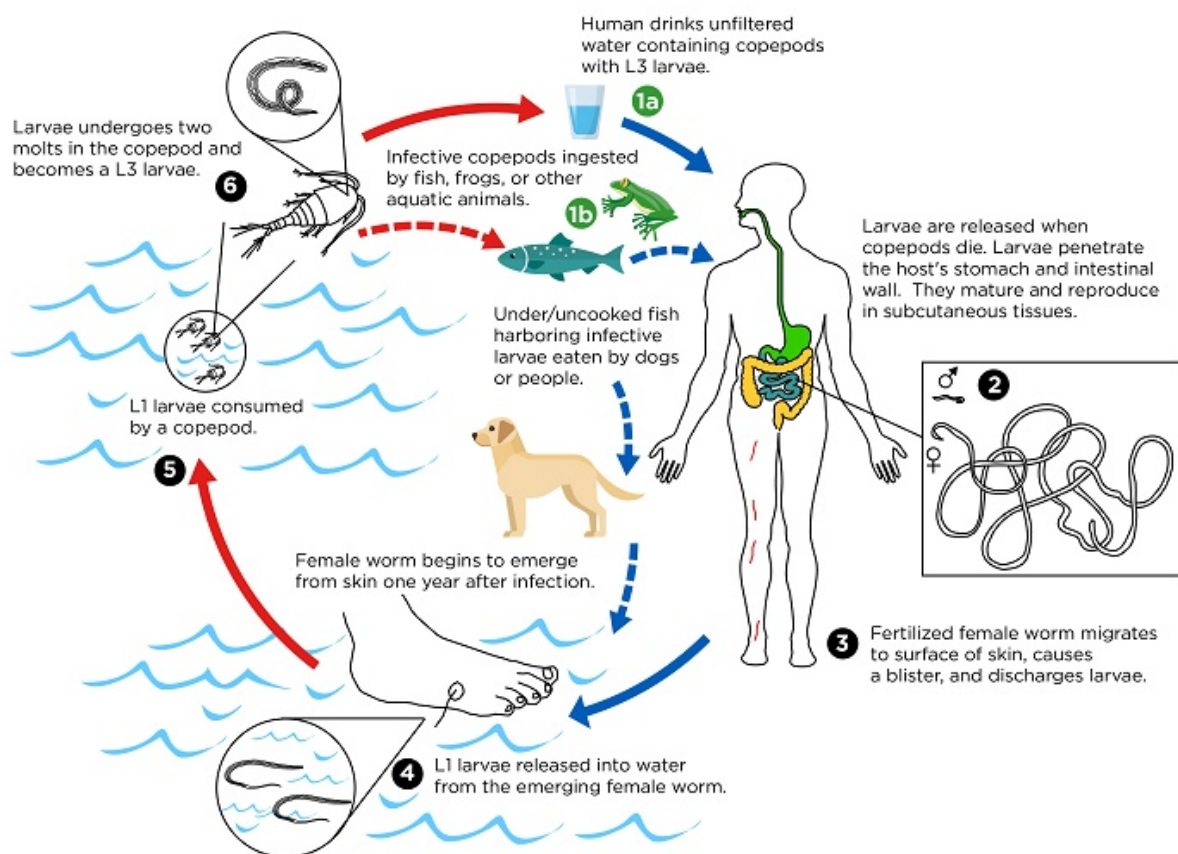
# Guinea Worm Disease

[Source: TH](#)

## Why in News?

Recently, the [World Health Organization's \(WHO\)](#) report has shed light on a remarkable milestone in global public health: **the imminent eradication of Guinea worm disease.**

- This **parasitic infection**, which **plagued millions in the 1980s**, has dwindled to just a **handful of cases in recent years**, signalling a triumph of human resilience and concerted eradication efforts.



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## What are the Key Facts About Guinea Worm Disease?

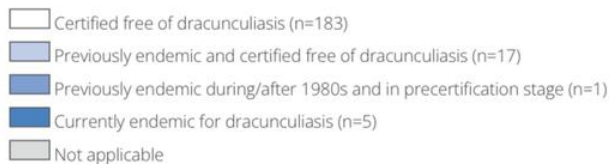
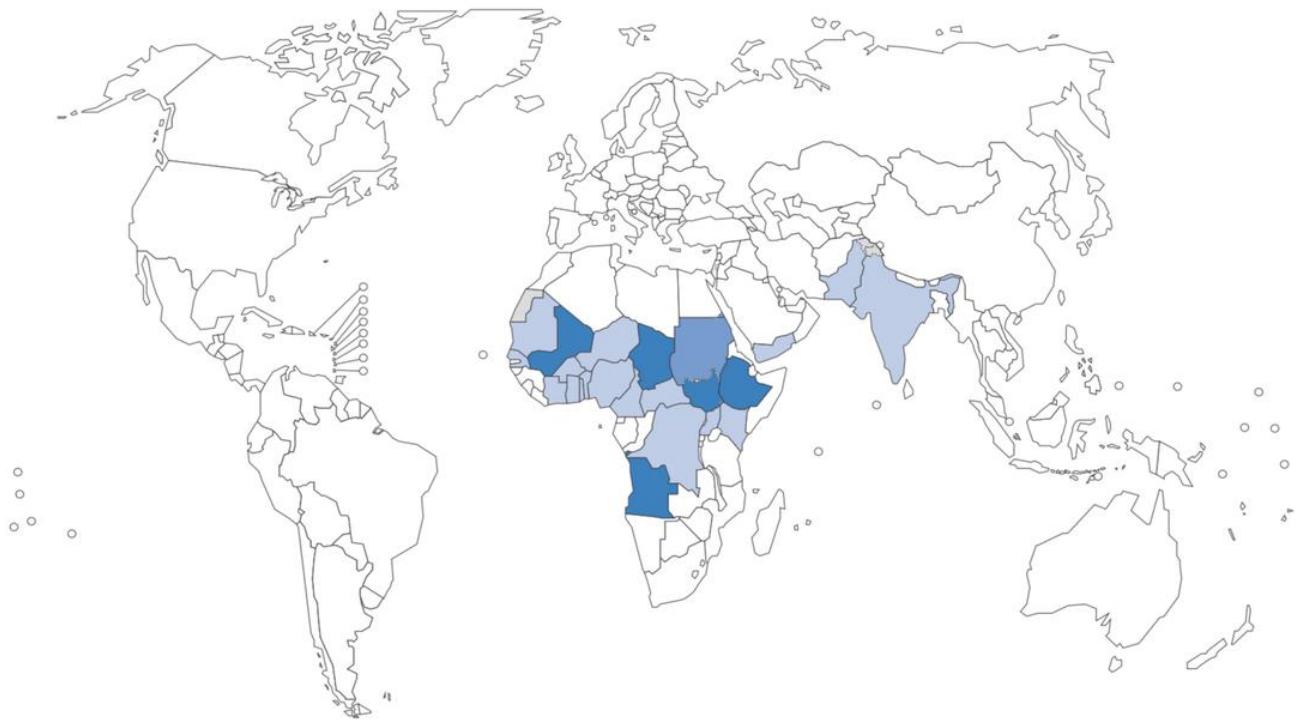
- **About:**

- Guinea worm disease, or Dracunculiasis is caused by the **Guinea worm (*Dracunculus medinensis*)**, a **parasitic nematode** is a debilitating parasitic disease that renders infected **individuals non-functional for weeks or months**.
- It primarily affects **people in rural, deprived, and isolated communities** who rely on stagnant surface water sources for drinking.
- In the mid-1980s, an estimated 3.5 million cases of dracunculiasis occurred in 20 countries worldwide, mainly in Africa and Asia.
- **Transmission, Symptoms and Impact:**
  - The parasite is transmitted when people drink **stagnant water contaminated with parasite-infected water fleas**.
  - The disease manifests with **painful skin lesions** as the worm emerges, causing **weeks of intense pain, swelling, and secondary infections**.
  - More than **90% of infections occur in the legs and feet**, affecting individuals' **mobility and ability to work** or perform daily tasks.
- **Prevention:**
  - There is **no vaccine or medication** to treat Guinea worm disease, but **prevention strategies have been successful**.
    - Strategies include heightened surveillance, preventing transmission from each worm through treatment and wound care, filtering water before drinking, larvicide use, and health education.
- **Road to Eradication:**
  - Efforts to eradicate Guinea worm disease began in the 1980s, with significant contributions from organisations like **WHO**.
    - Countries are **certified as free of dracunculiasis transmission** after reporting **zero instances for at least three consecutive years**.
  - Since 1995, WHO has certified 199 countries, territories, and areas as free of dracunculiasis transmission.
- **India's Success Story:**
  - **India achieved Guinea worm disease elimination in the late 1990s** through rigorous public health measures, including water safety interventions and community education.
    - The government of **India received Guinea worm disease-free certification status** from the WHO in 2000.
    - India has eradicated **Smallpox** (1980), **Polio** (2014), **Plague, Rinderpest (the Cattle Plague)**, **Yaws** and **Maternal And Neonatal Tetanus (2015)**.
- **Ongoing Surveillance and Challenges:**
  - Active surveillance is essential to ensure no cases are missed and to prevent the disease's re-emergence.
  - Challenges persist in regions like **Chad and the Central African Republic, where civil unrest and poverty** hamper eradication efforts.
  - Challenges include finding and containing the last remaining cases, particularly in remote areas, and addressing infections in animals, notably dogs.

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## Status of certification of dracunculiasis eradication as of 1 January 2023

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## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### **Prelims:**

#### **Q.1 Consider the following diseases: (2014)**

1. Diphtheria
2. Chickenpox

### 3. Smallpox

**Which of the above diseases has/have been eradicated in India?**

- (a) 1 and 2 only
- (b) 3 only
- (c) 1, 2 and 3
- (d) None

**Ans: (b)**

**Exp:**

- **Smallpox is the only disease among the given diseases that has been eradicated from India.**
  - Smallpox was an infectious disease caused by the Variola virus. Early symptoms include high fever and fatigue. The virus then produces a characteristic rash, particularly on the face, arms and legs. The resulting spots become filled with clear fluid and later, pus, and then form a crust, which eventually dries up and falls off. The last naturally occurring case of smallpox was diagnosed in 1977.
- Diphtheria is an infectious disease caused by the bacterium *Corynebacterium diphtheria*, which primarily infects the throat and upper airways, and produces a toxin affecting other organs. It is preventable by vaccines. Diphtheria cases are still very common in India.
- Varicella, also commonly referred to as chickenpox, is an acute and highly contagious disease. It is caused by primary infection with the Varicella-zoster virus. Its cases are still found in India. **Hence, 2 is correct.**
  - **Therefore, option (b) is the correct answer.**

### **Mains**

**Q.** Critically examine the role of WHO in providing global health security during the Covid-19 pandemic. **(2020)**

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