

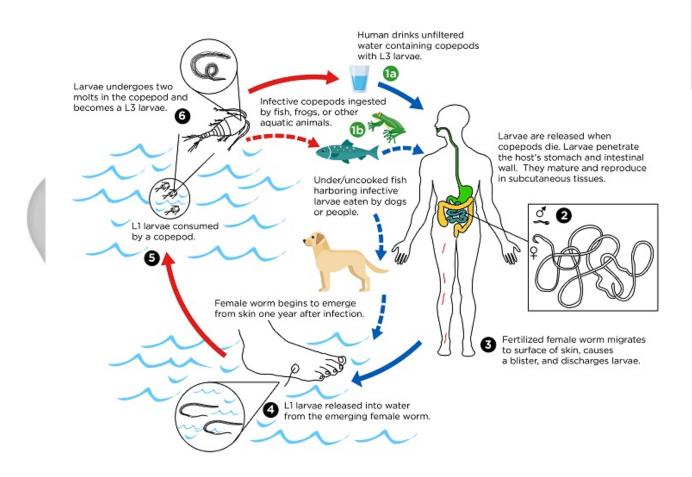
Guinea Worm Disease

Source: TH

Why in News?

Recently, the <u>World Health Organization's (WHO)</u> 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.



 \coprod

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:

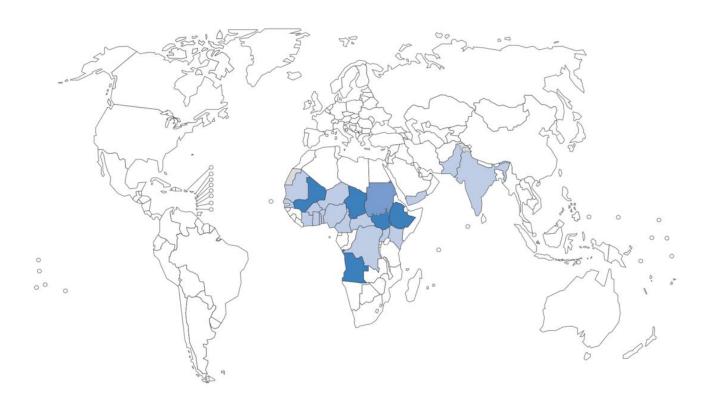
- Efforts to eradicate Guinea worm disease began in the 1980s, with significant contributions from organisations like WHO.
 - Countries are certified as free of dracunculiasis transmission after reporting zero instances for at least three consecutive years.
- Since 1995, WHO has certified 199 countries, territories, and areas as free of dracunculiasis transmission.

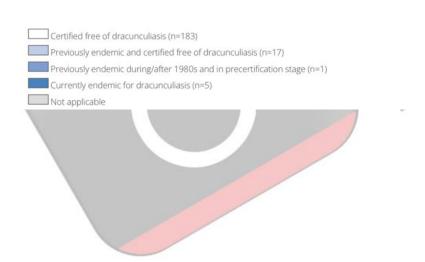
India's Success Story:

- 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 <u>Smallpox</u> (1980), <u>Polio</u> (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.





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)**

PDF Refernece URL: https://www.drishtiias.com/printpdf/guinea-worm-disease