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News: Guinea worm disease

- 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.

Guinea Worm Disease

- 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.