



DISEASE X: SCIENCE & TECHNOLOGY

NEWS : *What is Disease X and why the world should prepare for it*

WHAT'S IN THE NEWS ?

A December 2024 outbreak in the Democratic Republic of Congo, claiming over 400 lives, is suspected to be Disease X, a WHO term for unknown pathogens with pandemic potential. It underscores the urgency of global preparedness and collaboration to address emerging health threats.

Recent Outbreak in the Democratic Republic of Congo (DRC): Concerns Over Disease X

Key Highlights:

Current Situation:

- A December 2024 outbreak in DRC has caused over 400 fatalities.
- The disease remains unclassified and raises concerns about Disease X.

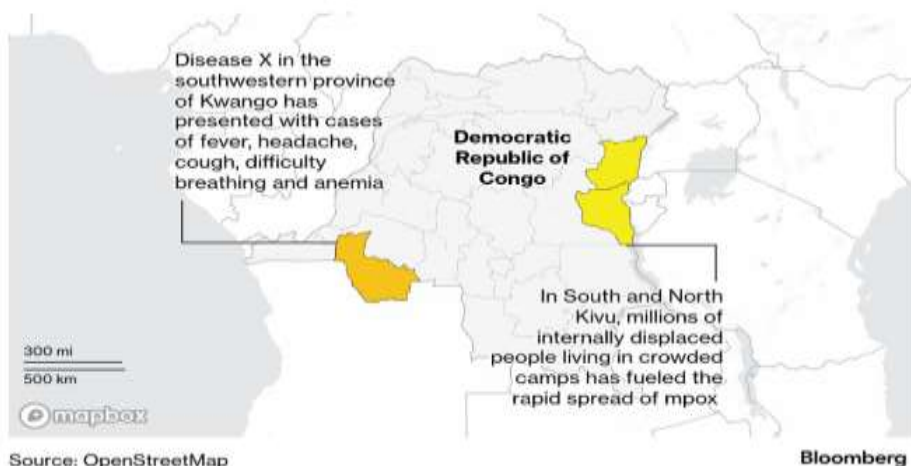
What is Disease X?:

- **Definition:** Coined by the WHO in 2018, it refers to a hypothetical unknown pathogen with pandemic potential.
- **Significance:** Represents the unpredictability of novel health crises.
- **Examples:** COVID-19 is considered the first real-world instance of Disease X.
- **Potential Causes:**
 - Viruses, bacteria, parasites, fungi, or prions.

About 70% of emerging infectious diseases are zoonotic, linked to human activities like deforestation and encroachment on wildlife **habitats**.

Flu-Like 'Disease X' Probed on Concerns of Emergence of a New Pathogen

Bulk of suspected cases in children younger than five years





Factors Contributing to Emerging Diseases:

- **Human Activities:** Urbanization, deforestation, and biodiversity loss increase the risk of outbreaks.
- **Unpredictable Risks:** Antimicrobial resistance, bioterrorism, and lab accidents.
- **Undiscovered Pathogens:** Approximately 1.7 million wildlife viruses could potentially infect humans.

1. WHO's Priority Pathogens List:

- **Origins:** Conceptualized post-2014–2016 West African Ebola epidemic to address preparedness gaps.
- **Key Pathogens:** Includes Ebola, Nipah, Zika, and Disease X.
- **Purpose:** Guides research, funding, and response strategies for diseases lacking countermeasures.

Preparation and Global Collaboration:

- **Technological Tools:**
 - Advanced surveillance systems and genomic tools for early detection.
- **Healthcare Investments:** Strengthening healthcare infrastructure globally.
- **Global Cooperation:**
 - Equitable sharing of resources and information.
 - Adherence to international agreements like the Nagoya Protocol on genetic resource access and benefit-sharing.

Source : <https://www.thehindu.com/sci-tech/health/what-is-disease-x-and-why-the-world-should-prepare-for-it/article68971869.ece>