



LEPROSY: SCIENCE & TECHNOLOGY

NEWS: India to employ targeted containment to stop transmission of leprosy

WHAT'S IN THE NEWS?

Leprosy, also known as **Hansen's disease**, is a **chronic infectious disease** caused by *Mycobacterium leprae*. Despite being curable, it remains a significant public health concern due to **stigma, delayed diagnosis, and disability risks**. India, the country with the highest number of leprosy cases, has launched **various government initiatives** to eliminate the disease, with a target of achieving **zero transmission by 2027**.

1. Understanding Leprosy

A. Cause & Transmission

- **Caused by:** *Mycobacterium leprae*, a **slow-growing** bacterium affecting the **skin and peripheral nerves**.
- **Mode of Transmission:**
 - Spreads **via prolonged, close contact** with an **untreated** leprosy patient.
 - Primarily transmitted through **respiratory droplets** (coughing/sneezing).
 - Children are **more susceptible** than adults.
- **Incubation Period:**
 - Typically **3 to 5 years** but can extend up to **20 years**.

B. Symptoms & Effects

- **Early Symptoms:**
 - Pale or reddish patches on the skin with **loss of sensation**.
 - Tingling, numbness, or **muscle weakness** in hands/feet.
- **Advanced Symptoms (if untreated):**
 - Severe skin lesions and **disfigurement**.
 - Permanent **nerve damage**, leading to **disability**.
 - **Loss of sensation in affected areas**, increasing injury risk.

2. Leprosy Treatment & New Drug Regimen



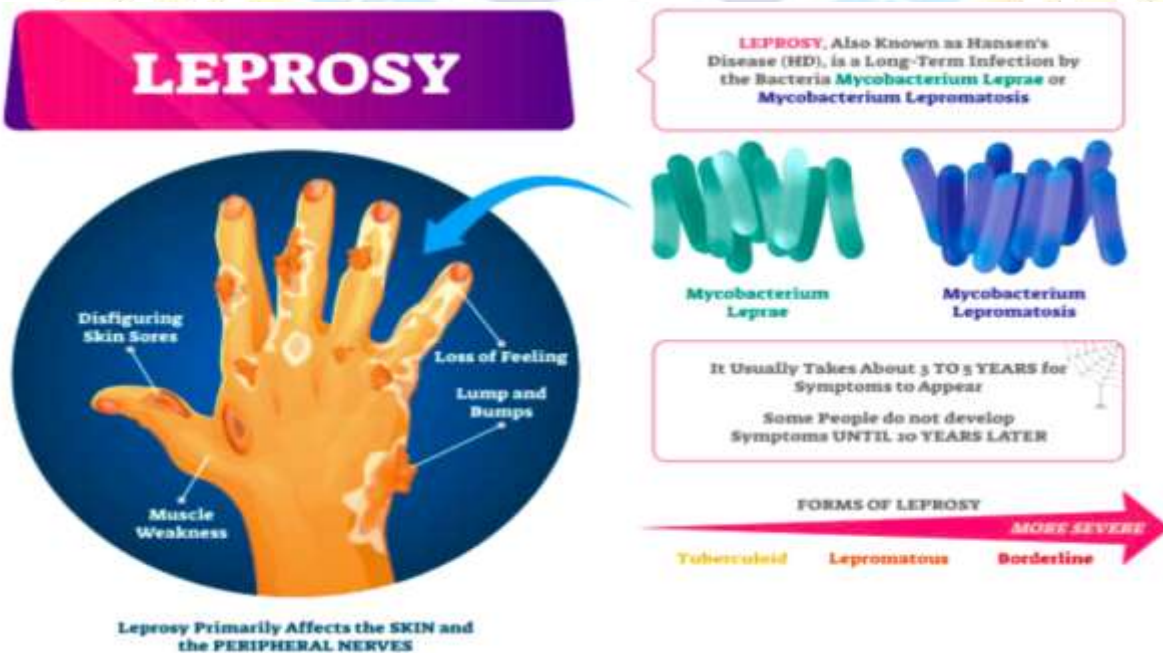
A. Standard Treatment: Multi-Drug Therapy (MDT)

- WHO-recommended MDT consists of:
 1. Dapsone
 2. Rifampicin
 3. Clofazimine
- Duration of Treatment:
 - Paucibacillary Leprosy (PB) (Mild Cases): 6 months.
 - Multibacillary Leprosy (MB) (Severe Cases): 12 months.
- MDT is available free of cost under national programs.

B. New Treatment Regimen (Effective April 2025)

- Change in Treatment Approach:
 - WHO revised MDT for Paucibacillary cases from a two-drug regimen to a three-drug regimen.
 - The Indian government has approved the revised regimen to accelerate elimination.
 - WHO will begin supplying the updated drugs from April 1, 2025.

3. Government Initiatives for Leprosy Eradication





A. National Leprosy Eradication Programme (NLEP) (1983, under NHM)

- **Objective:**
 - Detect leprosy **early** and provide **free treatment**.
 - Prevent the occurrence of **Grade II Disability (G2D)**.
- **Key Achievements:**
 - **2005:** India achieved “**Elimination of Leprosy**” as per WHO’s criteria (less than **1 case per 10,000 population**).
 - However, **leprosy persists in some districts** across states.
 - New case detection has **declined**:
 - **2014-15:** 1.25 lakh cases.
 - **2021-22:** 75,394 cases.
 - **High Burden States (5 States with the Most Cases):**
 1. **Bihar**
 2. **Chhattisgarh**
 3. **Jharkhand**
 4. **Maharashtra**
 5. **Odisha**

B. National Strategic Plan (NSP) & Roadmap for Leprosy (2023-27)

- **Launched by:** Ministry of Health in **January 2023** under NLEP.
- **Goal:** Achieve **zero transmission of leprosy by 2027** (three years ahead of **SDG 2030 target**).
- **Key Focus Areas:**
 1. **Awareness & Stigma Reduction**
 - Campaigns to eliminate **social discrimination** against patients.
 2. **Early Detection & Screening**
 - Door-to-door surveys for **active case detection**.
 3. **Prophylaxis (Leprosy Post-Exposure Prophylaxis - LPEP)**



- Preventive treatment for high-risk individuals.

4. Digital Tracking (Nikusth 2.0 Portal)

- A web-based system for real-time reporting and analysis of leprosy cases.

4. Leprosy as a Global Health Challenge

- Leprosy is still a Neglected Tropical Disease (NTD).
- It remains endemic in 120+ countries, with around 200,000 new cases annually.
- India accounts for nearly 60% of global leprosy cases.

Source: <https://www.thehindu.com/sci-tech/health/govt-to-employ-targeted-containment-to-stop-transmission-of-leprosy/article69158608.ece>

