Science & Technology · GS - II

Despite significant progress in reducing tuberculosis mortality, India faces persistent challenges in achieving TB elimination. Examine the role of technology, nutritional interventions and health-system strengthening in addressing these challenges.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 12/11/2026	GS - II	Science & Technology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Early diagnosis, AI-enabled screening, drug-resistant TB, nutritional support, public-health infrastructure, private-sector engagement, treatment adherence, surveillance, social determinants of health.

Model Answer

Introduction

Tuberculosis remains a major public-health challenge in India. Reduction in mortality indicates progress, but elimination requires sustained interventions addressing both medical and socioeconomic determinants.

Role of Key Interventions

- **Technology-enabled diagnosis:** Molecular tests, digital surveillance and AI-assisted screening can improve early detection and case identification.
- **Nutritional support:** Addressing undernutrition improves treatment outcomes and helps tackle the relationship between poverty and TB vulnerability.

- **Health-system strengthening:** Accessible diagnostic facilities, trained healthcare workers and uninterrupted drug supplies are essential for effective treatment.
- **Drug-resistance management:** Appropriate treatment regimens, adherence monitoring and drug-susceptibility testing can limit resistant infections.
- **Community participation:** Awareness, stigma reduction and private-sector engagement can improve reporting and treatment continuity.

Persistent Challenges

Undernutrition, overcrowding, delayed diagnosis, unequal healthcare access and treatment interruptions continue to impede elimination efforts.

Conclusion

India must combine technological innovation with equitable healthcare delivery and social protection. A patient-centred, prevention-oriented approach is essential to achieving the national TB elimination goal.

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