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Editorial

India's TB Elimination Challenge in 2026: Integrating Tri-Directional Screening and Drug Resistance Management

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Tuberculosis (TB) remains India's most persistent infectious disease challenge, accounting for the highest number of TB cases globally. According to the WHO Global TB Report 2024, India contributed nearly 25% of the world's TB burden, reflecting the high transmission as well as persistent gaps in early diagnosis and treatment [1]. Despite substantial progress under National Tuberculosis Elimination Programme (NTEP), the reduction in TB incidence rate remains slower than required to achieve national elimination targets. The expansion of rapid molecular diagnostics, universal drug susceptibility testing, and decentralized care has strengthened the program, yet delays in diagnosis, social stigma, and health system constraints continue to impede progress [2].

Drug Resistant Tuberculosis (DR-TB) poses an especially urgent challenge to TB control efforts. WHO reports a rising number of Multi-Drug Resistant and Rifampicin Resistant TB (MDR/RRTB) cases globally, with India contributing a substantial proportion [1]. The Programmatic Management of Drug-Resistant TB (PMDT) current guidelines recommend rapid molecular testing Shorter All-Oral regimens, and the use of newer agents, such as, Bedaquiline and Delamanid [2]. Recent Indian studies report improved outcomes with shorter treatment regimens but underscore persistent challenges in adherence, adverse effects and socio-economic vulnerability [6]. Strengthening pharmacovigilance, expanding access to shorter regimens, and improving patient centric support systems remain essential.

Syndemic interactions between Tuberculosis, Diabetes Mellitus (DM) and HIV/AIDS further complicate the TB burden in India. Diabetes increases the risk of active TB to approximately threefold, while HIV remains the strongest known risk factor for TB progression [3,4]. The Centre for Disease Control and Prevention (CDC) and WHO both emphasize the importance of integrated TB–DM–HIV in screening high burden settings [4,7]. In alignment with this approach, NTEP mandates tri-directional screening: all TB patients are tested for HIV and Diabetes Mellitus, all people living with HIV (PLHIV) undergo regular TB screening, and individuals with diabetes are evaluated for TB symptoms [2,3]. However, implementation gaps continue because of fragmented services, insufficient training, and constrained laboratory capacity.

Extrapulmonary TB (EPTB) remains a diagnostic challenge in India. The INDEXTB guidelines emphasize the need for improved diagnostic algorithms, specialist trainings, and expanded access to imaging and biopsy services to enhance case detection [5]. Recent Indian studies highlight persistent delays in diagnosing Extrapulmonary TB, particularly in rural and resource limited settings [8]. These gaps underscore the need for stronger health system capacity and better resource allocation.

Global partnerships continue to play a crucial role in India's TB response, with International Union Against Tuberculosis and Lung Disease (The Union) supports operational research, capacity building, and evidence-based policy development. Its collaboration

with India has strengthened programmatic management of DSTB and DRTB, improved recording and reporting system, and advanced implementation research—critical components for achieving elimination targets.

As India moves through 2026, the path to elimination of TB requires renewed momentum, deeper programmatic integration, and sustained political and financial commitment. Strengthening active case finding (ACF), expanding point-of-care molecular diagnostics, integrating TB–DM–HIV services, and addressing social determinants such as nutrition and poverty is essential. Through coordinated action across government, academia, civil society, and global partners, India can accelerate progress toward a future where TB is no longer a major public health threat.

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