



## HIV EPIDEMIC IN INDIA

## Community Medicine

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## KEYWORDS

India is home to the third largest HIV epidemic in the world. According to the latest report by the National AIDS Control Organization of India, the prevalence of HIV among adults in the country is estimated to be 0.22%. Although this figure appears comparable to the global average of 0.20%, because of India's massive 1.32 billion population, it translates to 2.14 million people living with HIV (PLHIV), of which 87,580 people were newly infected in 2017.<sup>[1]</sup>

The Indian scenario is characterized by low prevalence in the general population and elevated rates among high-risk groups. The prevalence among the female sex workers (FSW, 1.56%) and men who have sex with men (MSM, 2.7%) has continued to show a declining trend at the national level, but a stable, high-level epidemic among intravenous drug users (IDU, 6.23%) and hijra/transgenders (H/TG, 3.14%) continues to be a major concern.<sup>[2]</sup> Transmission is mainly heterosexually driven, with clients of FSWs, spouses/partners of MSM and IDUs, high-risk migrants, and long-distance truckers forming the bridge population.<sup>[3]</sup>

The burden of this disease is uneven across the nation, with significant inter-state variations in epidemic trends. Three North-eastern states (of Mizoram, Manipur, and Nagaland) have the highest adult HIV prevalence as well as incidence rates in the country. Along with the southern state of Telangana, their adult HIV incidence rates are almost four times higher than the national rate of 0.07.<sup>[4]</sup> While new infections have increased in some states, others have shown a plateauing or steady decline. This heterogeneity calls for a customized approach to disease prevention and treatment in the country.

Although the overall coverage of the ART program in India is still only around 56%, the scale-up of the ART program under the national AIDS response in India has resulted in a 71% decline in AIDS-related deaths, compared to a 48% global decline.<sup>[5]</sup> This scale-up of antiretroviral therapy has converted HIV infection into a chronic disease, and PLHIV are now surviving, aging, and requiring lifelong care and treatment. Along with an increase in life expectancy comes the increased risk of complications and comorbidities, such as communicable, noncommunicable diseases and mental, neurological, and substance use disorders.

Tuberculosis (TB) is the most common opportunistic infection and the most common cause of pyrexia of unknown origin occurring in HIV in India.<sup>[4]</sup> The latest WHO global tuberculosis report reveals that there were 1.2 million co-infected individuals in India at the end of 2016.<sup>[5]</sup> The perfect symbiosis maintained between the retrovirus and the mycobacterium has mutually helped both the epidemics in their rapid spread, leading to a paradigm shift in diagnostic approaches towards TB in HIV, since HIV complicates every aspect of TB including presentation, diagnosis, and treatment. HIV-TB patients encounter unique problems like drug-drug interactions, cumulative toxicity, immune reconstitution inflammatory syndrome (IRIS), lower plasma drug levels, and the emergence of drug resistance during treatment despite adherence.<sup>[6]</sup>

To mitigate the effect of the dual burden of HIV-TB, a joint collaborative effort between India's National AIDS Control Program (NACP) and the Revised National Tuberculosis Control Program (RNTCP) was established to enhance HIV testing coverage amongst notified TB cases and intensified TB case finding activities amongst PLHIV in the country, to ensure universal access to collaborative health services, while minimizing the stigma and discrimination associated with the diseases.<sup>[7]</sup>

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