# Delivering Integrated HIV/TB Services in India: Challenges and Opportunities in National AIDS Control Program (NACP) IV.

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## Introduction:

India is second highest HIV/TB burden country and accounts for and accounts for about 10% of the global burden of HIV-associated TB. (1) While TB is commonest opportunistic infection (OI) in HIV-infected individuals, HIV infection is an important risk factor for acquiring TB infection and its progression to active TB. Collaborative TB/HIV activities are essential to prevent, diagnose and treat TB among people living with HIV (PLHIV) and HIV among TB patients.

India's National AIDS Control Programme (NACP) and Revised National Tuberculosis Control Program (RNTCP) recognized importance of HIV/TB co-infection, in their control efforts, as early as 2001. The two programmes jointly developed interventions to ensure early detection and prompt linkage of TB and HIV cases to care, support and treatment. These interventions were governed by "National Framework for joint HIV/TB Collaborative Activities". Department of AIDS Control and Central TB Division jointly developed a National Framework for HIV/TB collaborative activities in 2008, 2009 and latest in 2013 to address the intersecting epidemics. (2)

Strong NACP-RNTCP coordination mechanisms at National, State and District level exist in India .Joint monitoring and evaluation with standardized reporting through web based mechanisms are very well established in country.

As proposed in the WHO policy on collaborative TB/HIV activities 2012(3) and National framework for HIV/TB collaborative activities 2013, India is implementing the Three I's for HIV/TB to reduce the burden of TB in people living with HIV viz. Intensified TB case-finding,

Implementation of Isoniazid preventive therapy (IPT) is planned in phased manner & TB Infection in health-care facilities and congregate settings is ensured all HIV/TB care settings.

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**Progress of HIV TB Collaborative services in India:**

a. **HIV testing of TB patients:** Provider Initiated HIV Testing and Counselling (PITC) of TB patients is implemented across the country as a part of the intensified HIV-TB package implemented jointly by NACP and RNTCP. HIV testing of TB patients is done at ICTC (stand-alone or F-ICTC or PPP ICTC). At present there are more than 13,500 Designated Microscopic Centers (DMC) with more than 7500 co-located HIV-TB testing facilities in the country. The Department of AIDS Control and Revised National TB control program has been successful in increasing access and uptake of HIV testing and counselling for all TB patients. In the year 2013, about 8,87,739 out of 14,14,869 (63%) registered TB patients had their HIV status assessed.

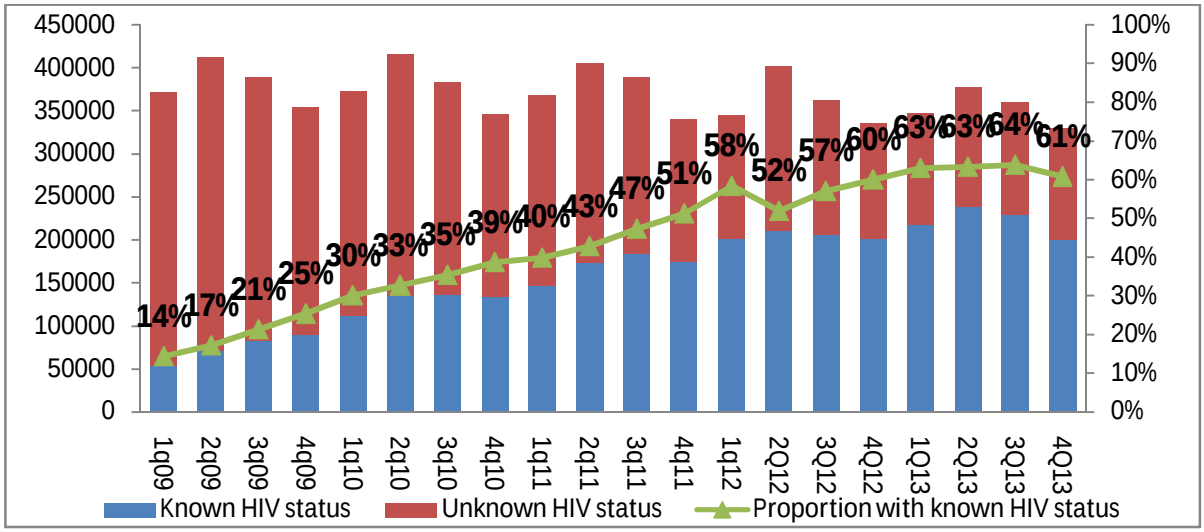


**Fig 1: Trend of proportion of TB patients with known HIV Status, 2009-2013**

b. **HIV testing of presumptive TB cases:** Based on the strong evidence from studies in India that the HIV prevalence among TB suspects can be as high as that among TB patients ranging from 7%-10% and that provider-initiated HIV testing and counselling (PITC) among TB suspects can be feasibly implemented in India in settings with decentralized HIV testing facilities. [4,5]

HIV testing in presumptive TB cases was rolled out in India in October 2012 in Karnataka, Maharashtra, Andhra Pradesh, Tamil Nadu, and Gujarat. It is being implemented in phased manner in high HIV prevalence districts i.e. A and B category districts.

c. **Intensified TB case finding (ICF):** Intensified case finding activities are implemented at all HIV care settings The cross–referrals between ICTC(Integrated counselling and testing centres) and DMC has consistently shown improvement, with 6,20,539 presumptive TB cases referred and detection of about 64,506 TB cases detected in 2013-14.

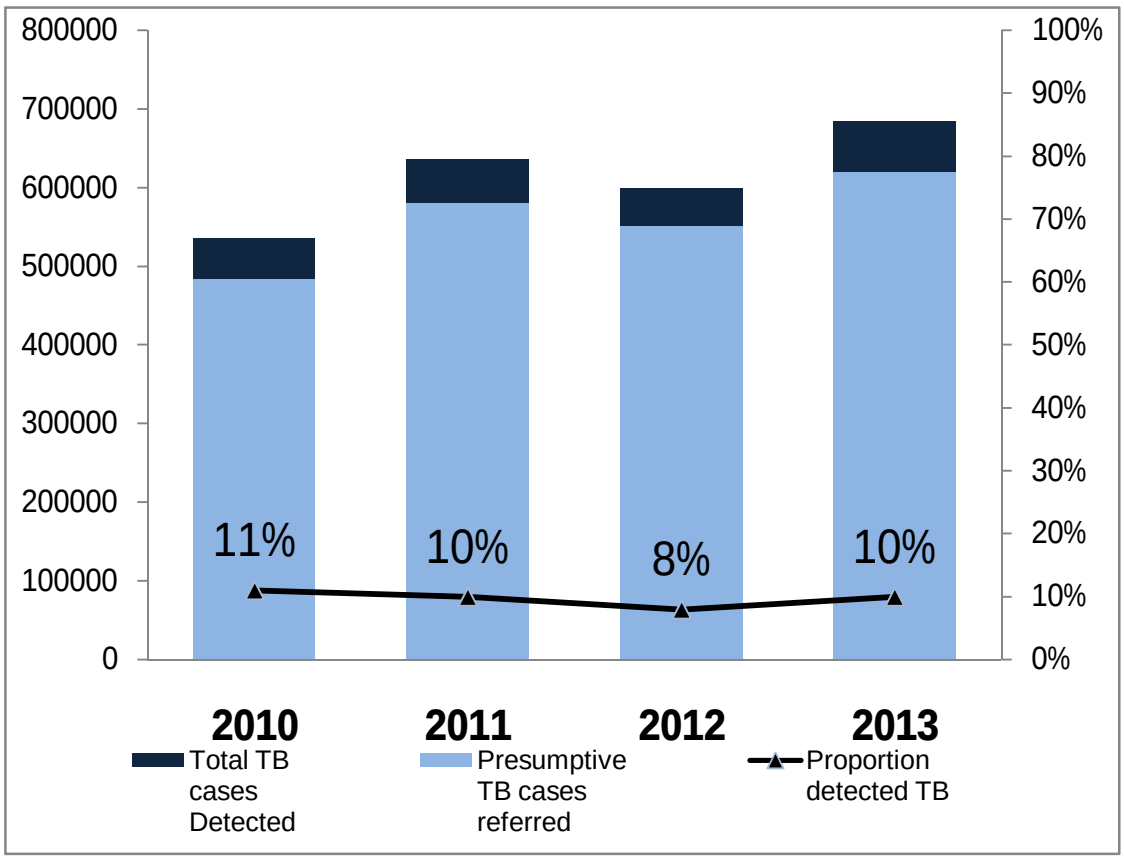


**Fig 2: Trends in Number of presumptive cases referred from ICTCs to RNTCP and (%) Diagnosed as TB, 2010-2013, India**

The presumptive TB cases identified at ART centers are prioritized and "fast-tracked" for evaluation by SMO/MO to minimize opportunities for airborne transmission of infection to other PLHIV. The ICF at ART is implemented in India since 2010 and it is now implemented at all ART centers, Link ART centers and Link ART Plus centers. Table 1. Shows progress in ICF activities at ART centers. More than 1,66,383 presumptive TB cases were identified among ART center attendees in 2013-14 and around 24,914( 15% ) were found to have TB. Around 93 % HIV/TB cases are also linked to DOTS treatment.

**Table 1: Performance of ICF activities at ART Centers, 2010 - 2014, India**

| Year | Total presumptive TB cases detected | Total TB positive patients detected | Proportion found TB positive | No.(%) of HIV/TB cases put on DOTS |
|---|---|---|---|---|
| 2010-11 | 80,837 | 22,382 | 28% | 18,978 (85%) |
| 2011-12 | 1,23,339 | 30,080 | 24% | 24,799 (82%) |
| 2012-13 | 1,03,426 | 20,393 | 20% | 18,278 (90%) |
| 2013-14 | 1,66,383 | 24914 | 15% | 23,170(93%) |

All the TB/HIV co infected patients are linked to the ART services irrespective of CD4 count. Cotrimoxazole preventive treatment (CPT) is provided to HIV infected TB patients. Fig 3 shows the trend of HIV/ TB co-infected patients receiving ART during TB treatment in India.

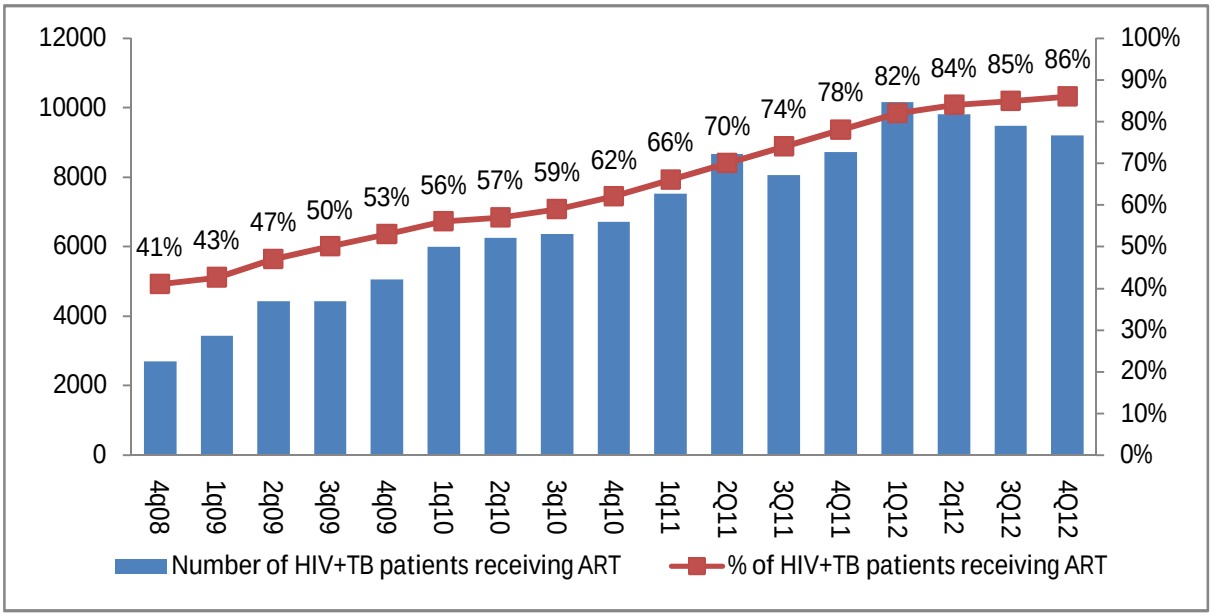


**Fig 3: Trend of HIV/ TB co-infected patients receiving ART during TB treatment, 2008 –2012, India**

Under the Programmatic Management of Drug resistant TB (PMDT), all the HIV/TB co- infected patients are linked to culture and drug sensitivity testing at nearest intermediate laboratory certified by RNTCP and if diagnosed as drug resistant TB the patient is provided treatment as per PMDT guidelines.

**Challenges in HIV/TB collaborative activities:** Despite strong coordination and progress made in the last decade, India is experiencing challenges in implementing HIV/TB collaborative activities. Some of these challenges are summarized below:

- Co-location of ICTCs and Designated microscopic centres is low especially in Northern and Eastern States in India
- Success rate among TB HIV co infected patients has not been more than 76% is past few Years due to high Death rate and Default rates.
- Uptake of TB –HIV scheme under RNTCP is low.
- Training gap of HIV/TB at district and state level RNTCP and NACP staff.
- Data flow and management information systems related to HIV/TB needs strengthening at various levels.
- TB Infection control measures at HIV/TB health care settings needs to be prioritized

**Opportunities in National AIDS Control Program (NACP) IV:**

Government of India initiated AIDS control activities as early as 1987 and evolved the National AIDS Control Programme (NACP). NACP Phase I was launched in 1992, followed by Phase II in 1999 and Phase III in 2006. NACP has been successful in achieving a steady decline in overall HIV prevalence. India has witnessed nearly 50% decrease in new HIV infections over the last ten years.NACP IV (2012-2017) is launched with the goal to accelerate reversal of the HIV/AIDS epidemic with an integrated response. [(6)] NACP IV provides several opportunities including focus on integration with National Health Mission and leveraging partnerships especially public private partnerships. HIV /TB collaborative activities that need to be prioritised during the NACP IV are summarized below:

- Scale up of integrated TB and HIV service delivery to increase the colocation status of Designated Microscopic centres and ICTC/F-ICTC centres.
- Capacity building of RNTCP and NACP staff to improve the quality of HIV/TB collaborative services.
- Involving nongovernmental and other civil society organizations and communities. Engaging the private-for-profit sector to improve the HIV/TB diagnostic facilities and linking patients to HIV, Care and Support services.
- Addressing the needs of key populations e.g.: women, children.
- Using Information technology interventions for monitoring treatment adherence in TB/HIV Co-infected patients and to improve outcomes.

- Expanding IEC services for general population and high risk groups with a focus on behaviour change and demand generation.
- Operational research to scale up collaborative TB/HIV activities, Research funding needed to support multidisciplinary implementation research.
- Streamlining the supply chain mechanisms and quality control mechanisms and building capacities of governmental and non-governmental institutions and networks.
- The up gradation of Strategic Information Management Systems (SIMS) is ongoing and will be firmly established at all levels to support evidence based planning, program monitoring and measuring of programmatic impacts.

**Conclusion:**

The increasing rates of HIV testing and linkages to ART, CPT services are encouraging indicators of progress in the implementation of TB/HIV collaborative activities in India. However co-location of diagnostic services, low success rates among due to high default and death rates, implementation of daily regimen for HIV/TB co-infected patients, implementation of INH preventive therapy, inadequate documentation and reporting mechanisms need to be addressed. Infection control measures for prevention of TB in HIV settings need to be emphasised, and rapid diagnostic techniques like CBNAAT should be scaled up for early diagnosis of TB among PLHIVs . Periodic evaluation of the progress of implementation of HIV/TB Collaborative activities at various levels would contribute to improved quality of care to TB/HIV co-infected patients in NACP IV.

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