

Why India's TB control is faltering: Poor diagnostics, drug supply disruptions and no counselling

A new report by international NGOs highlights how India lags in both policy and practice in preventing and treating tuberculosis.



Hanif, an XDR-TB patient taking medicines in his house in Mumbai | Atul Loke/Panos for Twitter/MSF Access Campaign

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India's tuberculosis control programme is not fully equipped to prevent, diagnose, and treat patients. The Revised National Tuberculosis Control Program uses outdated diagnostic techniques, suffers from repeated medicine stock-outs and lacks capacity to counsel tuberculosis patients, according to the Out of Step [report](#) released by the Stop TB Partnership and Médecins Sans Frontières last week.

Tuberculosis is caused by a bacteria which mostly infects the lungs. The Stop TB Partnership is an international body with more than 1,500 partners working towards fighting tuberculosis, and Médecins Sans Frontières or MSF is an international medical charity.

The report, which was released just ahead of the G20 summit on Friday and Saturday, analyses tuberculosis control programmes of 29 countries including India, checks their performance on diagnostics and treatment as per World Health Organisation guidelines and ranks each country.

“India is not looking good on the scorecard,” said Dr Madhukar Pai, associate director at McGill International TB Centre in Montreal, Canada.

Inadequate diagnostics

India is still heavily dependent on smear microscopy, one of the oldest ways of diagnosing tuberculosis. A laboratory technician looks for the tuberculosis bacteria on the slide with the sputum sample. This technique can detect tuberculosis in only 70% of cases, and is not a very sensitive test for pediatric tuberculosis, tuberculosis in HIV patients and extrapulmonary tuberculosis.

As per WHO guidelines, all patients suspected of having tuberculosis infections should be screened using the cartridge-based nucleic acid amplification test or CB-NAAT, which can pick tuberculosis bacteria even in small samples or when there are only smaller amounts of bacteria. The machine also picks out bacteria that are resistant to the tuberculosis drug rifampicin. The results are ready in two hours time.

Last year, India acquired 628 CB-NAAT machines for use across the country. New tuberculosis testing guidelines state that the samples of children, HIV-positive people and patients with suspected extrapulmonary tuberculosis will be tested using these CB-NAAT machine. This means that all other tuberculosis cases will not be checked for whether the infections are caused by drug-resistant bacteria.

“India is still too reliant on sputum microscopy and that means many patients will never get drug susceptibility testing and we will be treating them blind, without any information on whether the drugs will work or not,” said Pai.

Many countries such as Indonesia, Brazil, Kenya and Zimbabwe, offer CB-NAAT testing as an initial test for all suspected tuberculosis cases.

Another drawback in the programme is that few patients who test positive for rifampicin resistance get drug sensitivity tests for other drugs, although the WHO recommends these tests be done. India plans to offer the tests only in a phased manner. Find Diagnostics, a global non-profit organisation that works to provide high-quality, affordable diagnostic tests, is helping the programme begin testing for resistance to second line tuberculosis drugs. Its Line Probe Assay testing method is supposed to provide better profiles of drug resistance in just two days.

“The idea is to extend this second line Line Probe Assay to all laboratories,” said Sanjay Sarin, who heads the organisation in India.

Disruption in medicine supply

Every year, some parts of India are affected by medicine shortages. Scroll.in spoke to the state TB officers of Odisha, Jharkhand and Uttar Pradesh who confirmed stock outs of different TB drugs at different points of time this year.

Dr Sunil Khaparde, the deputy director general of Central TB Division, dismissed these stock outs and said that there were minor distributor-supply issues. However, such disruptions in supply interrupt patients’ treatment and can cause drug resistance.

The government programme is supposed to ensure that TB patients all over India get their daily regimen of drugs and is phasing out the intermittent regimen, which is consists of three doses every week. The intermittent regimen, the Out of Step report said, triples the drug resistance as opposed to the daily treatment. Currently India and China are the only countries among the 29 studied which follow intermittent dosing. Since the beginning of this year, only HIV-positive patients in India have been getting their daily doses of medicine.



(Photo: Daro Sulakauri/MSF)

Moreover, two new drugs – bedaquiline and delamanid – that have been approved by the World Health Organisation for treatment especially of drug resistant tuberculosis, are not being used extensively in India. While access to bedaquiline is limited to six centres including Delhi, Mumbai, Chennai, Ahmedabad, and Guwahati, delamanid has not yet been registered as a drug in the country.

Lack of counselling

Priya Gupta (name changed), who works with a non-profit organisation that helps HIV patients, contracted multi-drug resistant tuberculosis in October last year.

“They did not inform me of any side-effects,” said Gupta. “My joints stiffened and I could not even lift my hand. They would not tell me about it for a long time. Later one doctor told me it could be a side-effect of the medicine Pyrazinamide.”

Counselling is an important part of the WHO's tuberculosis control strategy and, on paper, India's tuberculosis programme provides for counsellors for MDR-TB patients at district level. However, many of these positions lie vacant, say health activists.

While India's HIV control programme has Integrated Counselling and Testing Centres where counsellors explain the disease, how drugs should be taken and how the spread of the disease can be prevented, there is very little infrastructure for a similar service in the tuberculosis programme. The National Strategic Plan had aimed to appoint treatment counsellors at every health facility by 2017.

Apart from these specific problems of poor diagnostics, drug supply disruptions and lack of counselling, the tuberculosis programme also suffers from an overall lack of funding. Although Finance Minister Arun Jaitley announced in February this year that India plans to eliminate tuberculosis by 2025, the budget for control of communicable diseases including tuberculosis has been [slashed](#) by Rs 13 crore in 2017-'18 compared to the previous year.

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Tuberculosis RNTCP Bedaquiline Delamanid CB-NAAT

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