

## TECHNICAL HIGHLIGHT



Photo Credit: Monoru Jacob

# Improving active case finding among a high risk population in Bangladesh

Selection of local volunteers and DOT providers (indigenous community) for proper referral linkage and treatment adherence

## PROJECT CONTEXT

Administratively, Bangladesh is divided into four tiers: divisions, districts, upazilas and unions; Urban localities can be classified as either urban areas or metropolitan cities. Within districts, the 12 metropolitan cities across the country operate as independent administrative areas, separate from upazilas. As of 2017, metropolitan cities account for 30% of Bangladesh's population and is expected to grow 50% over the next 14 years. This country's administrative structure greatly affects how a population receives health care services and who provides those services. Health service delivery, management and also human resource are different in rural and urban areas.

Bangladesh has a pluralistic health system with many stakeholders performing within that framework, including government and non-government organizations (NGOs). The healthcare infrastructure under the DGHS (Directorate General of Health services) comprises six tiers: National, Divisional, District, Upazila (sub district), Union, and Ward. In metropolitan areas, despite the coverage of Ministry of Health and Family Welfare (MoHFW) with secondary and tertiary level care, the primary health care services are

delivered as Essential Service Delivery Package (ESP) through Urban Primary Health Care Service Delivery Project (UPHCSDP) which is under a separate ministry (the Ministry of Local Government, Rural Development and Cooperatives). Additionally, the USAID-funded Smiling Sun health franchise program is operated by a network of health providers similar ESP in cities, which includes TB services. This inevitably creates fragmentation in the provision of health services.

Bangladesh is a tuberculosis (TB) endemic country and is ranked sixth among the 30 high TB burdened countries, with estimated incidence of 225 (all forms) and 45 deaths per 100,000 population per year. Historically TB services in Bangladesh have focused on treatment through standalone TB clinics and TB hospitals; diagnosis was passive and was dependent on the beneficiaries' health-seeking behavior. During the implementation of the MoHFW's Second Health and Population Plan (1980-1986), TB services were expanded to 124 sub-district health facilities, commonly known as upazila health complexes (UHCs), and were integrated with leprosy during the Third Health and Population Plan (1986-

91). TB-DOTS (directly observed treatment, short course) was adopted in Bangladesh in November 1993 during the Fourth Population and Health Plan (1992-1998) and was operating in all upazilas by 1998.

TB-DOTS implementation was initiated in metropolitan areas in 2002, beginning with Dhaka. The National TB Control Program (NTP) adopted the StopTB Strategy in 2007, and began managing drug-resistant TB

(DR-TB) with the 24 month protocol in 2008. It has since increased coverage to five districts through chest disease hospitals (CDHs).

## HEALTH SYSTEM

The MoHFW is the lead agency responsible for formulating national-level policy, planning, and decision-making in the provision of healthcare and education which are implemented by various authorities and healthcare delivery systems across the country from the national to the community level. The ministry and its relevant regulatory bodies also have indirect control over the NGOs and the private sector healthcare systems. The country has a pluralistic health system

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Through the USAID-funded Challenge TB (CTB) project, Management Sciences for Health (MSH) and its partners with National Tuberculosis Control program (NTP) have been working toward the End TB goal by improving active case finding across 14 districts and two city corporations, by prioritizing surveillance among

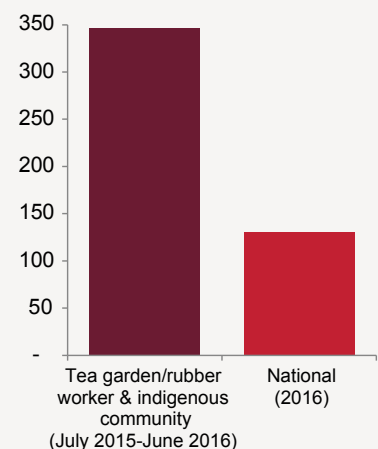
selected high risk populations to improve detection and treatment coverage. It supports the National TB Program of Bangladesh to achieve the goals of its National Strategic Plan for TB. MSH is the implementing partner and KNCV and IRD are the technical partners for the project. This project helps the NTP in making strategic choices for a sustainable difference, ensuring the highest impact with limited resources.

## PROBLEM STATEMENT

CTB works throughout Bangladesh to provide technical assistance (TA) to the NTP in all components of a TB control program including laboratory network strengthening, Public Private Mix (PPM), Advocacy, Communication and Social Mobilization (ACSM), Programmatic Management of Drug-Resistant TB (PMDT), TB/HIV, mHealth, monitoring and evaluation (M&E) and surveillance. CTB is working with sub-awardees to improve active case finding among high-risk and neglected populations in specific

geographical location. The specific high-risk population of the project is TB-diabetes infected; tea garden and rubber garden workers, and indigenous communities from Sylhet division; slum dwellers; factory workers and children. The selected populations are under-served and they do not have access to mainstream health services that put them on risk for getting TB. Figure 1 shows the case notification rate (CNR) of the target group compared to the national CNR.

TB Case Notification Rate (per 100,000 population)



## PROJECT IMPLEMENTATION

The strategic response of the project is to ensure the essential basic TB services are delivered to underserved and high-risk populations in collaboration with government health staff. Approaches and implementation strategies are outlined below:

Address case detection and improved treatment:

- Improve health seeking behavior and empower communities through awareness activities
- Improve patient-centered early diagnosis and treatment services at health facilities, through household screening and selection of local DOT providers
- Improve intensified case finding for risk groups through working with sub-awardees
- Enhance quality of TB diagnosis by keeping laboratory network functional and ensuring EQA
- Increase detection and enhance quality of MDR-TB treatment through provision of social support for patients and DOT providers

Ensure improved TB infection prevention and control measures through capacity-building of TB program managers and health workers:

- Improve the performance of health workers involved in TB prevention and care
- Improve TB infection control in key settings

Sustainable mechanisms integrated in all interventions:

- Strengthening political commitment and leadership
- Ensure quality data and functional surveillance system

Courtyard meeting with tea garden workers



Photo Credit: Monoru Jacob

- Improve evidence base and quality of TB control activities through operations research

### Tea, rubber garden workers and indigenous communities

The tea and rubber garden workers are marginalized communities and live in isolation from mainstream society. They are poor and lack access to education and other basic services. These populations work in garden areas which are confined tea-garden territories. Limited primary healthcare services provided by tea garden authorities do not include TB. Government health facilities are usually located outside the tea-garden territories further contributing to a lack of access to TB services.

The project also provides targeted services to the Khasi people—an indigenous community in Bangladesh—which live in isolated, highland territories where government health facilities are not available. They lack access to

education, basic healthcare services, and have a rich tradition of myths and taboos that affect health behaviors.

The tea and rubber garden workers and indigenous communities are reached through a network of community level health volunteers and DOT providers under a partner NGO called HEED Bangladesh. These volunteers are responsible for active case finding through household (HH) visits, presumptive referrals and treatment adherence, awareness raising activities including courtyard meetings and traditional folk songs among the workers and indigenous community members, and outreach sputum camps. They also raise TB awareness among village doctors and pharmacists, who are often the primary contact for those seeking healthcare and link them with TB-DOTS centers. There are also coordination meetings with tea garden managers to ensure patient rights exist, including leave with pay and job security.



## RESULTS AND ACHIEVEMENTS

From July 2015 to September 2016, 17,992 presumptive TB patients from the target groups were tested and 3,060 (17%) TB cases were detected. Out of the total cases 1,979 were diagnosed as bacteriologically confirmed (64.6%), 769 were clinically diagnosed (25.1%) and 312 were extra pulmonary TB cases (10.19%). The case notification rate (CNR) of all forms of TB among these groups was 346 per 100,000 population (Table 1), more than double the CNR of all form TB cases in the Sylhet division (170 per 100,000 population) and higher than the CNR of all forms TB at the national level (130 per 100,000 population). Through contact investigation 136 cases have been identified from these defined population (Table 2).

TABLE 1. Case notification among the tea garden workers and indigenous community

INDICATOR	ACHIEVEMENTS
# of presumptive patients tested in vulnerable groups	17,992
# of total TB cases identified	3,060 (17%)
Number of child case detected	189 (6%)
Case notification rate per 100,000 population	346
Number of presumptive tested through GeneXpert	178
Number of MDR cases identified	3 (1.68%)

TABLE 2. Case notification among the tea garden workers and indigenous community through active screening

INDICATOR	ACHIEVEMENTS
# of presumptive identified through contact investigation	309
# of case identified through contact investigation	136 (40% of presumptives and 4% of total cases)

Other achievements:

- 15 court yard meetings were held with tea garden workers
- 23 orientation sessions were held among tea and rubber garden workers and 25 sessions were held with indigenous community members.

## LESSONS LEARNED

- Tea and rubber garden workers and indigenous community members access TB services at both the community and households levels
- Engaging local community people for household screening and DOT provision has a significant effect on case finding and treatment adherence
- Motivation and engagement of tea, rubber garden and punji management authorities in planning and implementation processes resulted in easy access to and support from vulnerable groups.

Activities to increase TB awareness, including courtyard meetings and traditional folk songs with tea and rubber garden workers and indigenous communities



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## CONCLUSIONS

In Bangladesh tea and rubber garden workers and indigenous communities live in isolated areas with difficulties to access government health facilities. In addition, the level of poverty of some of these groups put them at risk of getting TB. To address these key populations, CTB implemented increased case

detection, identified missing cases, and increased adherence by implementing a community based delivery of TB services that included household screening (contact investigation), recruiting of local community volunteers for symptomatic referral, provision of DOT and strengthening the follow up.

Active screening of indigenous community



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