

# An Updated Cost Estimation for Services of the Bangladesh National TB Control Programme for 2020 to 2025

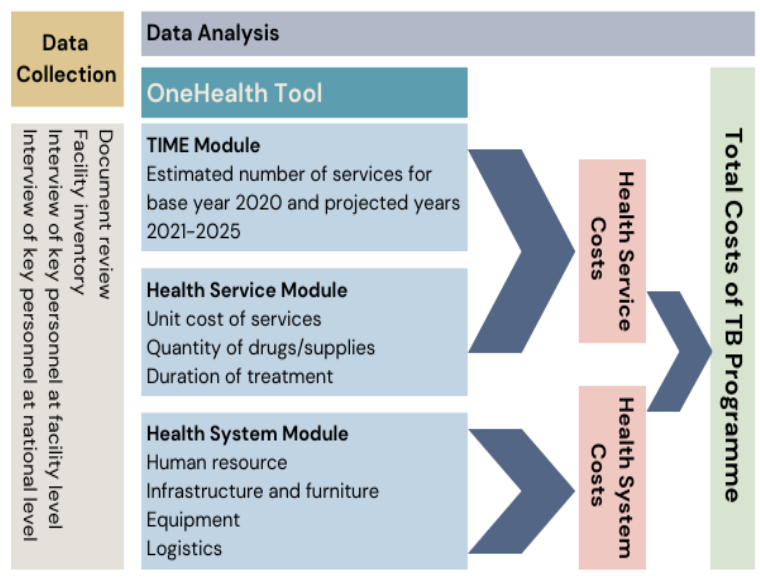
## Background

Over the last few years, the Bangladesh National Tuberculosis Control Programme (NTP) has improved diagnostic technologies for detecting TB cases (e.g., expansion of Gene-Xpert) and has changed strategies for the treatment of identified patients. The implementation of new diagnostic algorithm and technology will contribute to increasing TB case notification rate. The increase in case notification will require a higher number of identified patients to be treated. Considering the progress of the TB case notification rate, updated diagnostic algorithm and treatment regimens will have additional cost implications for the programme. Previously a TB costing study was conducted by icddr,b for the years 2016 -2022. However, considering the changes of programme implementation plan and price of drugs, the current study aimed to update the cost estimation for the services of NTP for the years 2020-2025.

Our study, funded by USAID’s Research for Decision Makers (RDM) activity and implemented by icddr,b, aimed at estimating the unit costs of the TB treatment related services, total cost incurred by service providers for each patient and total costs of services by delivery channels during the base year 2020 and projected years 2021-2025. The estimate will support policymakers to design effective programme and ensure adequate financing in future.

## Methodology

Using One Health Tool (OHT), a software designed by the World Health Organization to inform national strategic health planning in low- and middle-income countries, an ingredients-based costing approach was followed for the cost estimation. The OHT was then linked with the TB Impact Module & Estimates (TIME) to allow better accuracy for projecting TB programme costs based on the country’s TB disease burden and response. Consultative meetings, key-informant interviews, document reviews, and selected facility visits were adopted for data collection. All TB service- related costs incurred in 2020 and expected to take place between 2021-2025 were then identified,



## Key Findings

- OHT estimated the total cost of TB programme for the base year 2020 to be BDT 8,628.91m(USD 101.76m) which would increase to BDT 25,511.01m (USD 292.56m) in 2025 based on the availability of resources committed, projected service coverage achieved, and efficient use of fixed assets (Figure 1).

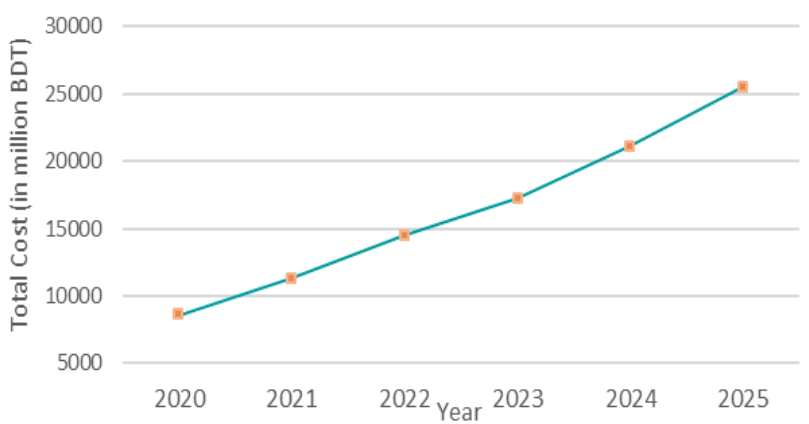


Figure 1. Comparison of yearly cost

## Key Findings

- Costs of procuring new drugs and supplies for implementation of updated treatment regimen and preventive therapy resulted in a sharp increase between 2020 to 2025 (Figure 2).
- Among the five treatment delivery channels considered, 41% of the cost is attributable to Xpert centers; reflecting NTP’s plan to switch from microscopy to molecular testing. 22% of the total cost is attributable to preventive therapy and awareness campaign at community level (Figure 3).

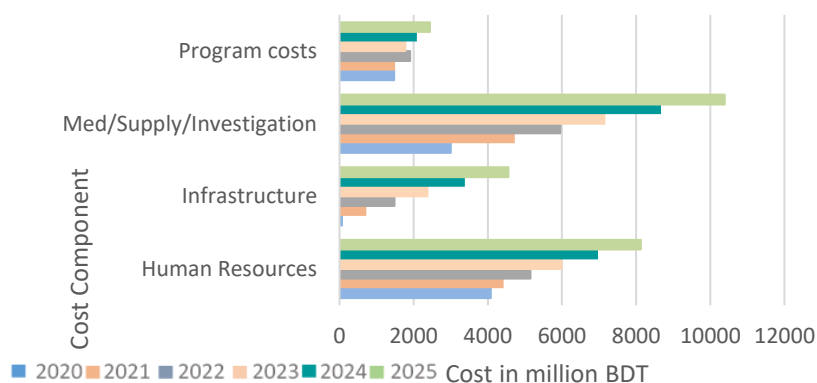


Figure 2. Comparison of increase in component wise cost of TB Programme

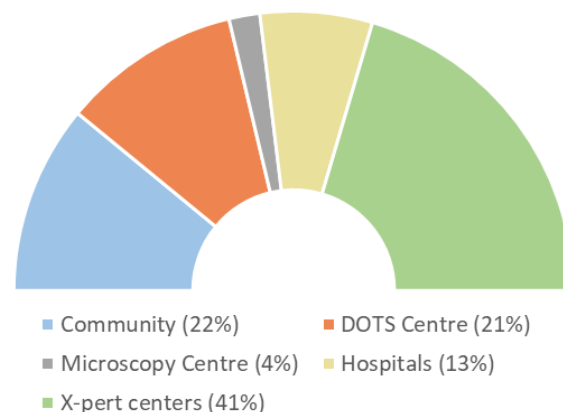


Figure 3. Cost of interventions by delivery channel

- Medicine, supplies, and investigations including wastage consumed the highest share of total costs (41%), followed by human resources (35%), programme management costs (11%) and infrastructure cost (13%) (Figure 4).
- Under NTP, treating an extensive drug resistance (pre-XDR) TB patient incurred the highest costs whereas providing preventive therapy to children under five years of age incurred the lowest costs.

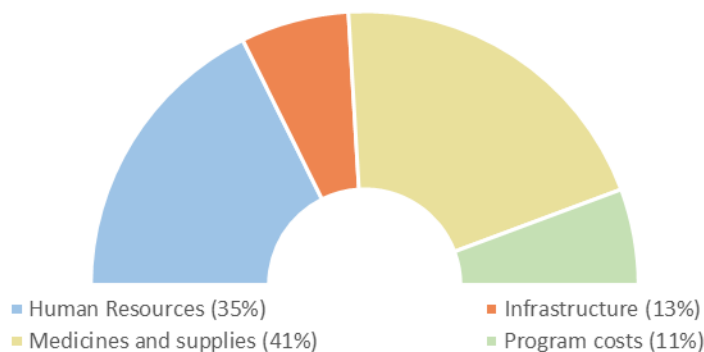


Figure 4. Component wise costs distribution in TB Programme

## Policy Relevance

- The Government of Bangladesh is dedicated to provide comprehensive TB services free of cost to every citizen. The current estimate can assist policymakers in advocating for required level of funding aligned to the projections.
- The current estimate identifies the resource need for the different programme components of TB service provision. This would allow need based efficient resource allocation within NTP.
- The OHT estimates related to unit costs of TB treatment inputs (drugs, supplies and investigations) and total cost per patient estimated for 2020-2025 can contribute towards more precise estimation for the next revision of the National Strategic Plan for TB control.

This brief was produced with the support of the United States Agency for International Development (USAID) under the terms of USAID’s Research for Decision Makers (RDM) Activity cooperative agreement no. AID-388-A-17-00006. Views expressed herein do not necessarily reflect the views of the U.S. Government or USAID. icddr,b is also grateful to the Governments of Bangladesh and Canada for providing unrestricted/institutional support.