

# Costs of Services of Bangladesh National Tuberculosis Control Programme using One

Health Tool: 2016-2022

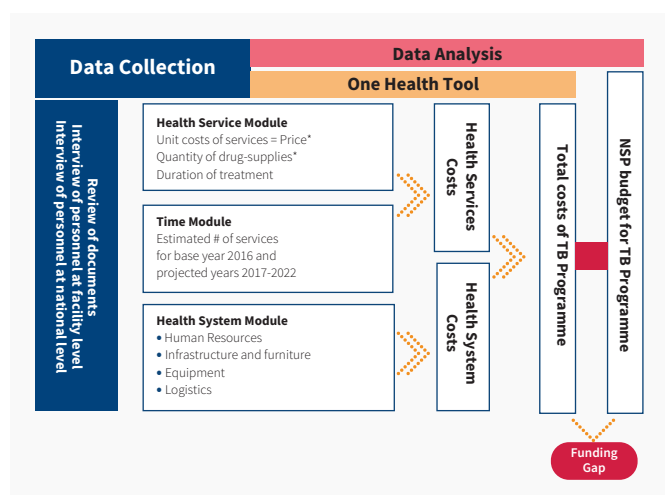
## Background

Bangladesh National Tuberculosis Control Programme (NTP) has introduced all-encompassing diagnostic technologies to accelerate TB case detection, management and effective prevention. These interventions are expected to continue across the period of current operational plan (2017-2022) and National Strategic Plan (NSP) (2018- 2022) for TB control - which is now being updated for the period of 2020- 2025. These activities (prevention, diagnosis, treatment and follow up) imply additional costs on the program.

Our study, funded by USAID's Research for Decision Makers (RDM) activity and implemented by icddr,b aimed at estimating the unit cost of the services, total cost bore by service providers for each patient and total cost of services by delivery channels during base year 2016 and projected years 2017-2022 so that policymakers are aware of it to ensure better program planning and adequate financing in future.

## Methodology

Using One Health Tool (OHT), a software designed by WHO to inform national strategic health planning in low and middle-income countries,



ingredients-based costing approach was followed. The OHT was then linked with TB Impact Module & Estimates (TIME) to allow better accuracy for TB program costs based on the country's TB disease burden and response. Consultative meetings, key informant interviews, document reviews, and selected facilities visits were adopted for data collection. All TB services related costs incurred in 2016 and expected to be happening in 2017-2022 were then identified, quantified, and valued in Bangladeshi taka.

## Key Findings

- OHT cost estimates revealed a funding gap of USD 235m when compared with NSP budget of 2018-22 (Figure 1)
- Total cost for 2016 (USD 49.2m) would increase to USD 146.9m in 2022 based on the availability of resources committed, projected service coverage achieved, and efficient use of fixed assets (Figure 2)

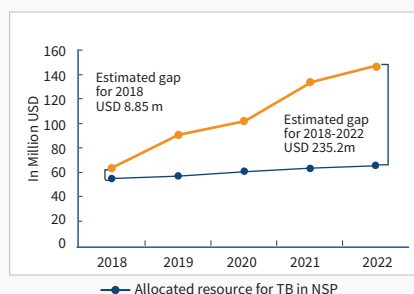


Figure 1: Funding gap between OHT estimates and NSP budget 201-2022

Total cost comparison in million BDT: 2016-2022



Figure 2: Comparison of yearly cost incidence

## Key Findings

- Costs of procuring new drugs and other supplies for implementation of a new treatment regimen and preventive therapy sharply increase from 2018 to 2022 (Figure 3)
- Among five treatment delivery channels considered, 59.8% cost occurs in DOTS centers for drugs, supplies, and investigation. 24.4% of the total cost incurs from preventive therapy and awareness campaign at community level, making it the second highest cost incurred (Figure 4)

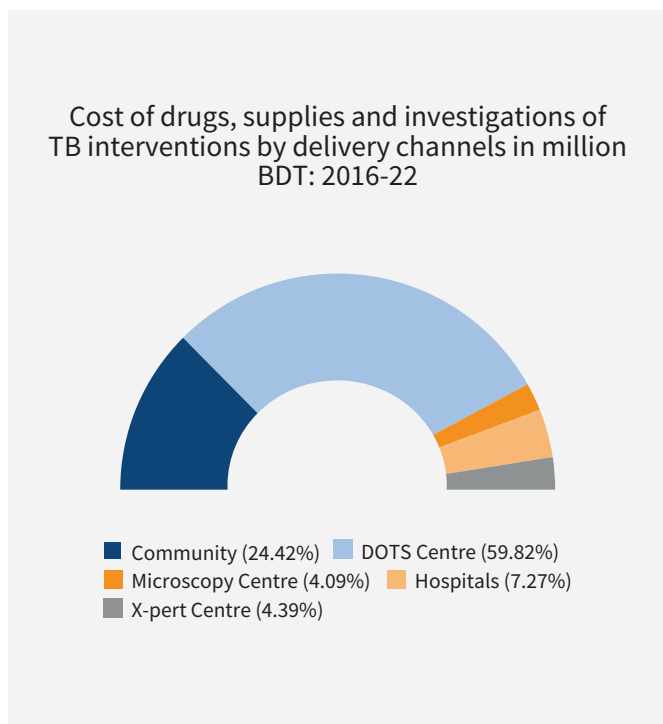


Figure 4: Cost of interventions by delivery channels

- 41% of the total cost incurred for human resources. Medicine, supplies, and investigations including wastage cost stands at 38%, program cost at 9% while the infrastructure cost remains 12% (Figure 5)
- Under NTP, treating an extensive resistance to drug (pre-XDR) TB patient costs the highest whereas providing preventive therapy to children under five years of age costs the lowest
- Under the new treatment regimen of 2019, for each patient, the shorter treatment course for multiple drug resistant (MDR) and pre-XDR costs substantially less compared to the cost incurred in 2016.

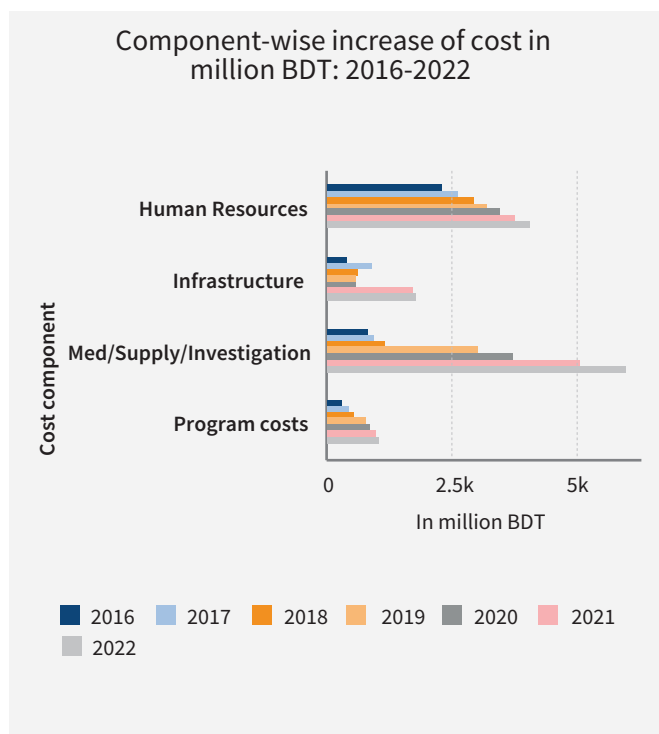


Figure 3: Comparison of increase in component costs

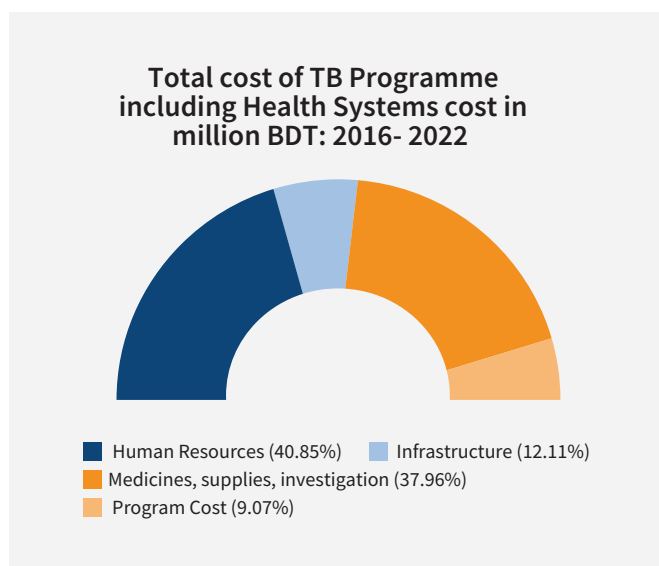


Figure 5: Component wise cost distribution in TB Programme

## Recommendations

- The funding gap of USD 235.2m implies requirement of additional investment for delivering TB services effectively. Therefore; policy planners need to advocate for increased funding for Bangladesh NTP to match the cost
- Given the relatively low cost of shorter treatment regimen of MDR and pre-XDR of 2019 than previous treatment regimens of 2016, shorter treatment regimen for MDR/pre-XDR should be scaled up.

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, Canada, Sweden and the UK for providing unrestricted/institutional support.