Report on

Baseline Assessment and Web Based GIS Mapping of Urban Health Facilities and Providers for TB Services

Challenge TB Project Bangladesh
Submission date: 19 July, 2018

Human Development Research Centre
humane development through research and action

Road 8, House 5, Mohammadia Housing Society, Mohammadpur, Dhaka-1207
Phone: (+88 02) 58150381, 58157621, 8101704, Fax: (+88 02) 58157620
Email: info@hdrc-bd.com; hdrc.bd@gmail.com; Web: www.hdrc-bd.com

The Global Health Bureau, Office of Infectious Disease, US Agency for International Development, financially supported this report through Challenge TB under the terms of Agreement No. AID-OAA-A-14-00029. This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of Challenge TB and do not necessarily reflect the views of USAID or the United States Government.

Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
BRAC	Bangladesh Rural Advancement Committee
CTB	Challenge TB
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DNCC	Dhaka North City Corporation
DOTS	Directly Observed Treatment
DSCC	Dhaka South City Corporation
FP	Family Planning
GDP	Gross Domestic Product
GIS	Geographic Information System
GoB	Government of Bangladesh
GP	General Practitioner
HIV	Human Immunodeficiency Virus
IRD	Interactive Research and Development
MCH	Maternal and Child Health
MDR	Multi Drug Resistance
MOHFW	Ministry of Health and Family Welfare
MSH	Management Science for Health
NGO	Non-Government Organization
NIDCH	National Institute of Diseases of Chest and Hospital
NTP	National Tuberculosis Control Program
PMDT	Programmatic Management of Drug-resistant Tuberculosis
PPM	Public-public and Public-Private Mix
RH	Reproductive Health
RRTB	Rifampicin Resistant TB
SBCC	Social Behavior Change Communication
SDG	Sustainable Development Goal
SMC	Social Marketing Company
STP	Search, Treat and Prevent
TB	Mycobacterium tuberculosis.
UN	United Nations
USAID	United States Agency for International Development
WHO	World Health Organization
ZTBCI	Zero TB Cities Initiative

CONTENTS

List of Figures

List of Tables

List of Boxes and Matrix

ANNEXURE

Executive Summary

Background

Bangladesh (160 million populations) is both a high Tuberculosis (TB) and Multi Drug Resistance-TB (MDR-TB) burden country in the South East Asian region. It is one of the world's 30 high TB burden countries[1] with annual occurrence of 353,600 new TB cases and treatment coverage rate (notified cases/estimated incidence) of 62percent. The epidemic of TB in Bangladesh is generalized: prevalence is estimated at (402/100,000 population). Case finding is low, with only 190,000 cases notified each year, just over half of the estimated incidence. 1.4percent of all new TB cases and 29percent among retreatment cases are estimated to be drug resistant.

In October 2017, the Ministry of Health and Family Welfare (MoHFW) with support from USAID and Challenge TB (CTB) Initiative has launched the Zero TB Cities Initiative with strong political commitment of the government for ending TB, and signed a declaration with a call for action "uniting to make our cities TB free." Contributing to the National Tuberculosis Control Program (NTP), the CTB program with supports from USAID is being implemented by Management Sciences for Health (MSH) and Interactive Research and Development (IRD) to ensure TB free cities. CTB also included Zero TB Cities Initiative under the umbrella of End TB Strategy of the Government of Bangladesh. In this context, CTB has undertaken an initiative to identify TB provider and facilities in Dhaka city and design one digital application for easy access to information and service by service seekers. This led to conduct a census of facilities which prepared a list of health facilities and providers, as well as conduct GIS mapping exercise of health facilities to upload their data bank in the web for people's access round the clock. Considering the complexity of Dhaka city arena, along with time and resources to reach all facilities at a time, this baseline assessment was designed as a pilot study. Identified area (1.5 km surrounding the City Pollee) for the study partially covered wards number 6,7, 8, 39, 48, 49 and 50 of Zone 2 and 5 Dhaka South City Corporation (DSCC). Considering above scenario CTB intended to explore the state of health facilities in terms of providing TB services along with a patient communication pathway for TB information and service seeking. The communication pathway analysis was anticipated to allow CTB to design patient centered services.

Methodology

The survey was conducted using mixed method approach. For identification of health facilities, census of health facelifts and GIS mapping was done using specially developed apps. Facility census also used paperless Tab based digital questionnaire for interviewing the respondents of respective facilities for generating basic features of each facilities. Patient interview was conducted using Tab based digital questionnaire. Collected GIS data were analyzed using appropriate programs, report for the same prepared in form of digital dynamic interactive web based map which was hosted in specially rented domain. Patient interview data were analyzed using SPSS package.

1 http://www.who.int/tb/publications/global_report/gtbr10_main_text.pdf.

Findings

The census of health facilities in selected wards identified 423 facilities providing TB services (direct and indirect), of which 93 percent are private sector facilities, followed by NGO facilities (5 percent), and government facilities (1 percent). Among the facilities, 330 (78 percent) are pharmacies among the pharmacies, 52 (16percent) are affiliated with Blue Star Network. Among those pharmacies who are currently not affiliated with the network, 93(28percent) showed their interest to be affiliated with the network. Only 9facilities in the area operate round the clock, while most of the facilities including 328 pharmacies have their business hour limited between 9 AM and 10 PM. 242 facilities reportedly are providing preventive TB service, 114 facilities provide TB services (full range of TB/diagnostic/ outpatient service/ DOTS service, etc.). Most of the facilities can be accessed by rickshaw. Findings has revealed that Clinics have the highest TB client load (316 per day) followed by diagnostic centers (136 per day), Medical College/General Hospitals (134 per day) and DOTS corner (104 per day). A total of 331 facilities reportedly refer TB clients and 28 facilities maintain registers in line with NTP directives. However, 51 facilities notify respective authorities about TB cases, and 104 facilities link TB patients with safety net providers.

The baseline survey interviewed 190 TB patients, of whom 73percent are females, 52percent from urban areas. Among the respondents, 61.6percent patients have confirmed non-MDR TB, while 38.4percentconfirmed MDR.

Four out of five TB patients received first information about the disease from their family members. First point of contact after self-identification of TB symptoms is Government Provider (48percent) followed by NGO Provider (24percent) and pharmacy (5percent). Four out of five patients reported that they were diagnosed TB at time of their first visit to the provider. Three out of five patients got diagnosis confirmed at government hospitals, while one out of five diagnosed at NGO facilities. Almost all (90percent female and 96percentmale) patient did chest X-ray. Sputum test was done to75percent female and 50percent male patients. It is worth mentioning that the proportions of female and male patients who undergone GeneXpert tests for confirmation of TB diagnosis are 43percent and 37percent respectively. Almost all (95 percent) patients started treatment immediately after confirmation of diagnosis. Those who delayed the treatment 40percentwaited for another confirmatory test while20percent mentioned financial reason, and the rest (40 percent) stated family related issues.

A total of 37percent female and 73percent male patients preferred TV as a media for receiving information about TB. Internet through smart phone, radio and newspaper was cited as the second preferred media for TB information.