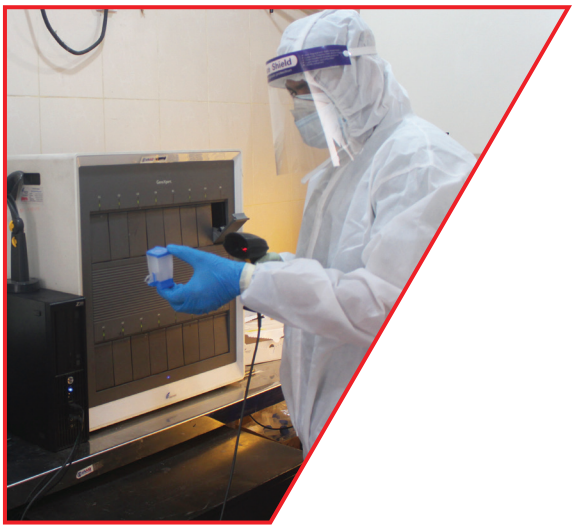
Annual Report 2021

National Tuberculosis Control Programme
Bangladesh



National Tuberculosis Control Programme
Directorate General of Health Services
Mohakhali, Dhaka-1212

CONTENTS

ABBREVIATIONS

ACSM	Advocacy, Communication and Social Mobilization
ADR	Adverse Drug Reaction
AFB	Acid - fast Bacilli
AHI	Assistant Health Inspector
AIDS	Acquired Immune Deficiency Syndrome
BRAC	Bangladesh Rural Advancement Committee
CDC	Chest Disease Clinic
CDR	Case Detection Rate
CNR	Case Detection Rate
CS	Civil Surgeon
CWFD	Concerned Women for Family Development
DGHS	Directorate General of Health Services
DOT	Directly Observed Treatment
DOTS	Internationally recommended strategy for TB control
DST	Drug Susceptibility Testing
EQA	External Quality Assessment
ESP	Essential Services Package
FDA	Fluorescent diacetate staining
FDC	Fixed-dose Combination
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GLC	Green Light Committee
HEED	Health, Education and Economic Development
HI	Health Inspector
HIV	Human Immunodeficiency Virus
HNPSP	Health, Nutrition and Population Sector Program
HPSP	Health and Population Sector Program
HPNSDP	Health, Population, Nutrition and Sector Development Program
HRD	Human Resources Development
ICDDR,B	International Centre for Diarrheal Disease Research, Bangladesh
LAMB	Lutheran Aid to Medicine in Bangladesh
LEPRA	(British) Leprosy Relief Association
LPA	Line Probe Assay
MBDC	Mycobacterial Disease Control
MDG	Millennium Development Goal

MDR-TB	Multidrug Resistant Tuberculosis
MO	Medical Officer
MoH&FW	Ministry of Health and Family Welfare
MO (TB/Lep)	Medical Officer (Tuberculosis and Leprosy)
MoU	Memorandum of Understanding
NATAB	National Anti-TB Association Bangladesh
NGO	Nongovernmental Organization
NIDCH	National Institute of Diseases of the Chest and Hospital
NTP	National Tuberculosis Control Program
NTRL	National Tuberculosis Reference Laboratory
PO	Program Organizer
PPM	Public-private or Public–public Mix
RDRS	Rangpur Dinajpur Rural Service
RTRL	Regional Tuberculosis Reference Laboratory
SEARO	WHO Regional Office for South-East Asia (New Delhi)
TB	Tuberculosis
TLCA	Tuberculosis & Leprosy Control Assistant
TLMB	The Leprosy Mission, Bangladesh
IUATLD	The Union (International Union Against Tuberculosis and Lung Disease)
UHC	Upazila Health Complex
UH&FPO	Upazila Health and Family Planning Officer
UPHCP	Urban Primary Health Care Project
UPHCSDP	Urban Primary Health Care Service Delivery Project
USAID	United States Agency for International Development
WHO	World Health Organization

1. SUMMARY

Bangladesh, a country in South Asia that is categorized as a low middle income country by the World Bank (WB) and which aspires to become a middle income country by 2021, has a double burden of disease with a rising burden of non-communicable disease and a persistence or even a resurgence of communicable diseases. Among the communicable diseases Tuberculosis (TB) is the commonest cause of morbidity and mortality and continues to be a major public health threat in Bangladesh.

Under the Mycobacterial Disease Control (MBDC) unit of the Directorate-General of Health Services (DGHS), the National Tuberculosis Control Program (NTP) is working with a mission of eliminating TB from Bangladesh.

NTP policies and strategies to date have been informed by international standards formulated by the World Health Organization, such as the directly observed treatment, short course (DOTS) strategy launched in 1993, and the Stop TB Strategy that underpinned the Global Plan to Stop TB 2006–2015. New multisectoral strategic approaches and new international targets for the post-2015 period have been approved by the Sixty-seventh World Health Assembly in May 2014 resulted in the formulation of WHO's End TB Strategy in 2015.Under this strategy, new, ambitious yet feasible global targets are proposed for 2035. These include achieving a 95% decline in deaths due to tuberculosis compared with 2015, and reaching an equivalent 90% reduction in tuberculosis incidence rate from a projected 225 cases/100,000 in 2015 to 10 cases/100,000 or less by 2035.

Since the introduction of DOTS in 1993, remarkable progress in TB control has been made. The program achieved the initial target of 70 % case detection rate of the new smear-positive cases in 2006 and treating successfully 85% of them since 2003, which has been maintained over 90% since 2005. The program has successfully treated 96.49% of bacteriologically confirmed new pulmonary TB cases registered in 2019.

The Case Notification rates per 100,000 population in 2010 were 80 and 135 respectively for bacteriologically confirmed new pulmonary, and all forms (new and relapse) of TB cases.

As of 31 December 2020, countrywide a total of 9,785 (cumulative) MDR TB patients were enrolled for treatment including 975 in 2020. Among the 975 patients in 2020, 101 are under longer regimen and 874 under shorter regimen.

The topics covered in the main chapters of the report are; brief introduction of National Tuberculosis Control Programme, Tuberculosis scenarios of Global, Region and of Bangladesh, Progress in TB Control – activities related to TB control performed in 2020, case finding in 2020 and treatment outcomes of cases registered in 2019, laboratory activities, training, workshops and brief on NTP collaborative activities with description of significant achievements, lessons learned and challenges.

The report's annexes describe; district wise case notification rate 2020, district wise treatment results, new pulmonary bacteriologically confirmed cases registered in 2020, laboratory report of year 2020 etc.

This Annual Report of NTP is a living document for the country to review progress in its TB response and adjust accelerate progress towards ending TB in Bangladesh by 2030 in line with national and global commitments. The Annual Report 2021 representing data, information and progress made by NTP and its implementing partners including technical and development partners from 1st January 2020 to 31st December 2020.

2. INTRODUCTION: HISTORY OF THE NATIONAL TUBERCULOSIS CONTROL PROGRAM

Government of Bangladesh is committed to provide TB diagnosis and treatment services completely free of cost to all citizens of the country. It strives to make services equally available to all people of Bangladesh irrespective of age, sex, religion, ethnicity, social status or race.

In 1965, tuberculosis services were mainly curative and based in TB clinics and TB hospitals. TB services were expanded to 124 upazila health complexes (UHCs) during the Second Health and Population Plan (1980-86), and were operationally integrated with leprosy during the Third Health and Population Plan (1986-91) under the Mycobacterial Disease Control (MBDC) unit of the Directorate-General of Health Services (DGHS).

The revised NTP adopted the DOTS strategy during the Fourth Population and Health Plan (1992-98) under the project "Further Development of TB and Leprosy Control Services". Now Ministry of Health and Family Welfare (MOHFW) has been implementing the 4th Health, Population and Nutrition Sector Development Program (HPNSDP) for a period of five years from January 2017 to June 2022. In all the sector programs tuberculosis control has been recognized as one of the priority programs. By 2007 the services were available throughout the country.

The overall vision of NTP is to eliminate tuberculosis as a public health problem in Bangladesh. The Government of Bangladesh, together with its many and diverse partners from the public and private sectors, is committed to further intensify the TB control activity in order to sustain the achieved success and to reach the TB control targets linked to the WHO End TB Strategy.

The MBDC directorate consists of two wings: National TB Control Program (NTP) and the National Leprosy Elimination Programme (NLEP). Two Deputy Directors, one for each wing to support the Director in administrative and program activities. The Director MBDC is also the Line Director (TB-Leprosy and ASP) and the latter program function is linked to HPNSDP and is non-permanent. One of the two deputy directors who functions as the NTP Manager reports directly to the Line Director (TB-Leprosy). The Director MBDC reports to the Director-General of Health Services. NTP coordinates all activities through the Directorate General of Health Services with the Ministry of Health and Family Welfare. For TB control, along with Deputy Director, positions of one Assistant Director, 6 Medical Officers and other support staff are there. Additionally, 4 functional positions of Deputy Program Managers are there to support the Program. To cope with the extensive program activities after ensuring Global Fund support, NTP recruited some technical and administrative support staff who are working for NTP in national and sub- national level.

At central level the NTP is responsible for policy, planning, management, coordination, training, supply, supervision, monitoring, and implementation of TB services.

The NTP collaborates with approximately fifty national and international health and development agencies to implement the End TB Strategy. To ensure best use of comparative advantages and to avoid fragmentation and duplication of efforts, regular coordination meetings are held.

To assist in the overall TB programme implementation and in the monitoring and evaluation of the national strategic plan specific technical working groups have also been set up under NTP to coordinate strategies and activities – such as TB Technical Committee, Technical Working Group on PSM, Child TB, Laboratory, ACSM, PPM and TB/HIV. In addition, a national MDR-TB management coordination committee has been established. Coordination is also ensured through the Country Coordination Mechanism set up for Global Fund collaboration for TB, HIV and Malaria.

In addition, NTP program management and implementation is supported by implementing Partners /NGOs staff in different administrative tiers to support the TB control activities at health facilities and community level.

3. TUBERCULOSIS SCENARIO

3.1 Global TB Scenario[1]

Tuberculosis (TB) is a communicable disease that is a major cause of ill health, one of the top 10 causes of death worldwide and the leading causes of death from a single infectious agent (ranking above HIV/AIDS). Worldwide, around 10 million people fall ill with TB each year.

Globally, an estimated 10.0 million (range 8.9 -11.0 million) people fell with TB in 2019, a number that has been declining very slowly in recent years, cases occurred, equivalent to 130 cases per 100,000 population. Almost 90% of cases each year are in 30 high TB burden countries.

Among the 10.0 million incident cases, TB affects people of both sexes in all age groups but the highest burden is in men (aged >15 years) who accounted for 56% (5.6 million) of all TB cases in 2019. By comparison women accounted for 32% (3.2 million) and children (aged <15 years) for 12 % (1.2 million). Among all TB cases, 8.2% were people living with HIV (PLHIV).

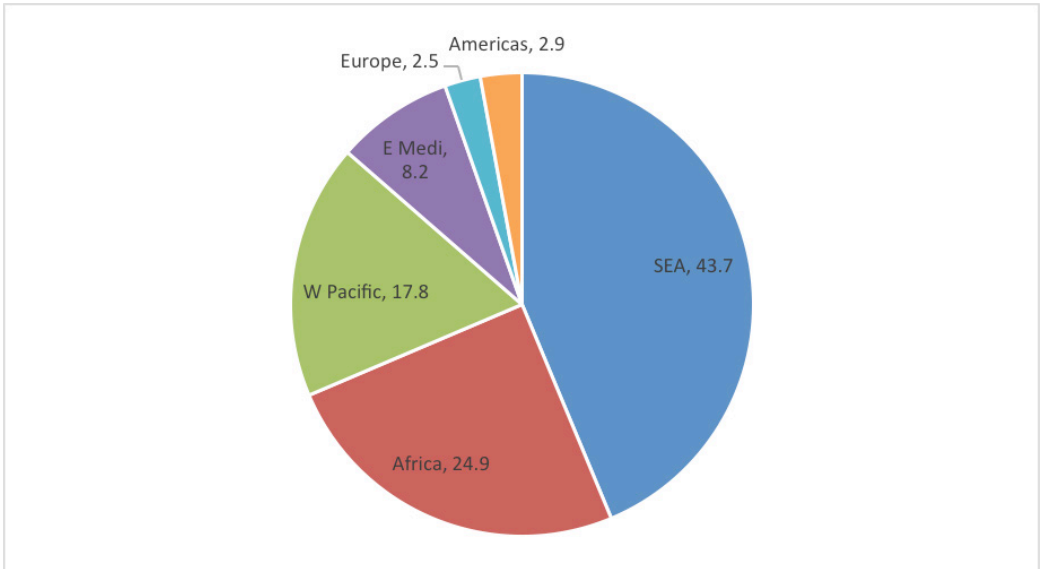
There were an estimated 1.2 million (range, 1.1- 1.3 million) TB deaths among HIV-negative people in 2019 (a reduction from 1.7 million in 2000) and an additional 208,000 deaths from TB (range, 177,000 - 242,000) among HIV-positive people (a reduction from 678,000 in 2000).

3.2 South-East Asia Regional Scenario

Geographically, most TB cases in 2019 were in the WHO regions of South-East Asia (44%), Africa (25%) and the Western Pacific (18%) regions (fig 1), with smaller percentages in the Eastern Mediterranean (8.2%), the Americas (2.9%) and Europe (2.5%). Eight countries accounted for two third of global total; India (26%), Indonesia (8.5%), China (8.4%), the Philippines (6%), Pakistan (5.7%), Nigeria (4.4%), Bangladesh (3.6%) and South Africa (3.6%). These and 22 other countries in WHO's list of 30 High TB burden countries accounted for 87% of the world's cases.

The Region has nearly half the global burden in terms of new cases appearing (incidence), and close to 44% of the burden. An estimated 4.34 million new TB cases and 632,000 TB deaths occurred in 2019. In SEA Region, the estimated incidence rate for all forms of Tuberculosis in 2019 was 217 per 100,000 population. An estimated 32 per 100,000 people died on TB in the same year. 3.4 % of TB patients (new and relapse cases 2019) reported with known HIV status who are HIV- positive in 2019.The incidence of MDR/RR-TB was 8.6/100,000 population.

Fig.1 Proportion of estimated incidence of all forms of TB cases by WHO Region; 2019



Source: Global Tuberculosis Report, WHO, 2020

*1 * According to "Global Tuberculosis Report, WHO, 2020".*

Currently, the world as a whole, most WHO regions and many high TB burden countries were not on track to reach the 2020 milestones of the End TB Strategy.

Globally, the average rate of decline in the TB Incidence rate was 1.6 % per year in the period of 2000-2018, and 2.0 % between 2017 and 2018. The cumulative reduction between 2015 and 2018 was only 6.3%, considerably short of the End TB Strategy milestone of a 20 % reduction between 2015-2020. The global reduction in the total number of TB deaths between 2015 and 2018 was 11 %, also less than one third of the way towards the end TB Strategy Milestone of a 35% reduction by 2020.

Globally, the reduction in the TB incidence rate between 2015 and 2019 was 9% (from 142 to 130 new and relapse cases per 100,000 population), including a reduction of 2.3% between 2018 and 2019, less than halfway to the 2020 milestone. The global reduction in the number of TB deaths between 2015 and 2019 was 14%, less than halfway towards the milestone.

Based on case notification date reported to WHO, the target of 2018 was achieved. Globally, 7.0 million new cases of TB were notified in 2018- an increase from 6.4 million in 2017 and a large increase from the 5.7 -5.8 million notified annually in the period 2009-2012. Among the notified 7.0 million cases about 6.95 million were new and relapse. The latest treatment outcome data for new cases of TB show a global commitment success rate of 85% in 2017, an increase from 81% in 2016.

Globally, 7.1 million people with TB were reported to have been newly diagnosed and notified in 2019, up from 7.0 million in 2018 and a large increase from 6.4 million in 2017 and 5.7–5.8 million annually in the period 2009–2012. The treatment success rate for new and relapse cases in the 2018 cohort was 85% (the same level as in 2017).

3.3 Bangladesh Scenario

In Bangladesh, the estimated incidence rate for all forms of Tuberculosis in 2019 was 221 per 100,000 populations. An estimated 24 per 100,000 people (HIV negative) died of TB in the same year. The estimated incidence rate of HIV positive TB cases decreased from 0.45/100,000 in 2018 to 0.43/100,000 in 2019. The incidence of MDR/RR-TB was 2/100,000 population, decreased from 3.7/100000 population in 2018 (Table 1). The total number of notified case was 292,940 which is 81% of total incidence cases.

Table 1: Estimated population and TB Burden, Bangladesh- 2019

• Population:	163 *million*
• Mortality rate (excluding HIV+ve TB):	24 / (15-34) / 100,000 *population*
• Mortality rate (HIV+ve TB only):	0.09 (0.05-0.16) / 100,000 *population*
• Incidence rate (including HIV+ve TB):	221 (161-291)/ 100,000 *population*
• Incidence rate (HIV+ve TB only):	0.43 (0.21-0.72)/ 100,000 *population*
• Incidence of MDR/RR-TB:	2 (0.98-3.4)/ 100,000 *population*

**Ref: Global Tuberculosis Report, WHO, 2020*

The End TB Strategy

NTP policies and strategies are aligned with the WHO's End TB Strategy in 2015[2]. Building on the End TB Strategy's Three Pillars

1. **Integrated, Patient-Centered Care and Prevention**
2. **Bold Policies, and Supportive Systems**
3. **Intensified Research, and Innovation**

2 The End TB Strategy; Global strategy and targets for tuberculosis prevention, care and control after 2015; WHO, Geneva, 2015

and following the key principles of government stewardship and accountability, strong coalition with civil society organizations and communities, protection and promotion of human rights, ethics and equity, and adaptation of the strategy and targets at country level, the NSP 2021-2025 describes key interventions and activities that will enable the NTP to achieve the End TB Strategy's Milestones for 2025 (75% reduction in tuberculosis deaths and 50% reduction in tuberculosis incidence rate) and targets for 2035 (95% reduction in tuberculosis deaths and 90% reduction in tuberculosis incidence rate). A summary of the End TB Strategy's components is provided in the table below:

END TB STRATEGY FRAMEWORK

VISION	A world free of tuberculosis – zero deaths, disease and suffering due to tuberculosis
GOAL	End the global tuberculosis epidemic
MILESTONES FOR 2025	75% reduction in tuberculosis deaths (compared with 2015) 50% reduction in tuberculosis incidence rate (less than 55 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis
TARGETS FOR 2035	95% reduction in tuberculosis deaths (compared with 2015) 90% reduction in tuberculosis incidence rate (less than 10 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis

PRINCIPLES

1. Government stewardship and accountability, with monitoring and evaluation
2. Strong coalition with civil society organizations and communities
3. Protection and promotion of human rights, ethics and equity
4. Adaptation of the strategy and targets at country level, with global collaboration.

PILLARS AND COMPONENTS

1. INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION

A. Early diagnosis of tuberculosis including universal drug-susceptibility testing; and systematic screening of contacts and high-risk groups

B. Treatment of all people with tuberculosis including drug-resistant tuberculosis; and patient support

C. Collaborative tuberculosis/HIV activities; and management of comorbidities

D. Preventive treatment of persons at high risk; and vaccination against tuberculosis

2. BOLD POLICIES AND SUPPORTIVE SYSTEMS

A. Political commitment with adequate resources for tuberculosis care and prevention

B. Engagement of communities, civil society organizations, and public and private care providers

C. Universal health coverage policy, and regulatory frameworks for case notification, vital registration, quality and rational use of medicines, and infection control

D. Social protection, poverty alleviation and actions on other determinants of tuberculosis

3. INTENSIFIED RESEARCH AND INNOVATION

A. Discovery, development and rapid uptake of new tools, interventions and strategies
B. Research to optimize implementation and impact, and promote innovations

4. NATIONAL TUBERCULOSIS CONTROL PROGRAM (NTP)

4.1 Vision of NTP

TB Free Bangladesh: Zero deaths, disease and suffering due to TB

4.2 Mission of NTP

The NTP aims to strengthen TB control efforts through effective partnerships, mobilizing necessary resources and ensuring quality diagnostics and treatment services under the defined END TB strategy. The NTP strives to make services equally available to all people in Bangladesh irrespective of age, sex, religion, ethnicity, social status or race.

4.3 Goal of NTP

Goal (related to End TB Strategy): End the Tuberculosis epidemic aiming to achieve a target of 10 new cases /100,000 /year in 2035. (Projected 2015 baseline 225/100,000)

4.4 Objectives of NTP

The present objective is to achieve universal access to quality TB care for all TB patients in order to achieve the End TB targets.

- Increase annual case detection of all forms of TB to more than 90% of all incident cases by 2022 (from baseline of 57% in 2015) with childhood TB contribution of 8% by 2022 (from baseline of 4% in 2015).
- Maintain a treatment success rate of at least 90% in all forms of detected non-MDR TB cases and ensure quality-controlled treatment services at all implementation sites.
- Increase annual case detection of MDR-TB to 4100 cases (from baseline 800 in 2015) and child MDR case detection to 112 cases by 2022 (from baseline on 0 in 2015) and improve management of MDR-TB Cases through countrywide implementation of the shorter MDR-TB treatment regimen.
- Ensure that no TB affected families facing catastrophic costs due to tuberculosis by 2022.
- Ensure that 100% of TB service facilities receive regular supervision and monitoring with appropriate feedback resulting in remedial actions by 2022.
- Ensure the long term availability of 100% of required funding for activities at all program levels through effective planning and partner co-ordination and the continuing increase of GoB contributions to the NTP budget.
- Ensure adequate support for operational research to foster innovation

4.5 Programme Implementation

The TB diagnostic and treatment services are available free of charge all over the country. The common places where free-of-charge diagnostic and treatment services for TB are available are given below:

- All Upazilla Health Complexes
- All Chest Disease Clinics and Chest Disease Hospitals
- District Sadar Hospitals.
- Public and private medical college hospitals
- Specialized Hospitals Urban health centre's in all metropolitan cities (GO and NGOs)

4.6 Major Events /Achievements:

The major events/achievements during 2018 are as follows:

- Shorter regimen being scaled up countrywide in 2018.
- The NTP has achieved and is sustaining a very high TB treatment success rates for all forms of TB especially in new and relapse TB cases (94.4% for the 2018 cohort) but also among re-treatment cases (84.5% for the 2018 cohort) and patients with drug resistant TB (73% for the 2017 cohort).
- The GoB came through with its commitment to procure first line anti-TB medicines in 2018 effectively shifting this responsibility from the Global Fund to self.
- Country wide scale up of new diagnostic algorithm.
- Rapid expansion of GeneXpert – 429 sites with 470 machines.
- Dissemination of National TB prevalence Survey 2015-2016 Report.
- Completed 2nd DRS Survey.
- The GoB committed at the TB -UNHLM to adopt high-level mechanisms for coordination and review to accelerate progress towards ending TB.

4.7. Major Challenges:

The main challenges of NTP in 2018 are:

- To find 25 % of missing TB, including 6% of Child TB.
- TB case diagnosis and management in urban and hard to reach areas.
- Management of TB/HIV Co-infection.
- Further strengthening laboratory services including expansion of culture and DST and GeneXpert.
- Equipment's maintenance at all levels is a big challenge (especially GX module replacement and calibration).
- Lack of adequate human resource for laboratory services - medical assistant/technicians, radiographers, and multipurpose workers etc;
- NTP involvement of civil society and affected communities appears to be less robust.
- Establishment of TB-HMIS with private health sector.
- TB response remains highly dependent on external funding.

5. PROGRESS IN TB CONTROL

Since the introduction of DOTS in Bangladesh in 1993, remarkable progress in TB control has been made in terms of DOTS coverage, diagnosis, and treatment of TB cases.

5.1 DOTS Coverage

DOTS coverage, defined as the proportion of population living in administrative areas with access to DOTS services.

Increased steadily from 1995 onwards, almost the entire population of Bangladesh had access to DOTS by the end of 2007 (100 % DOTS Coverage).

DOTS coverage refers to the population living in areas where DOTS services are available. This does not mean that all people have equal access to diagnostic and/or treatment facilities

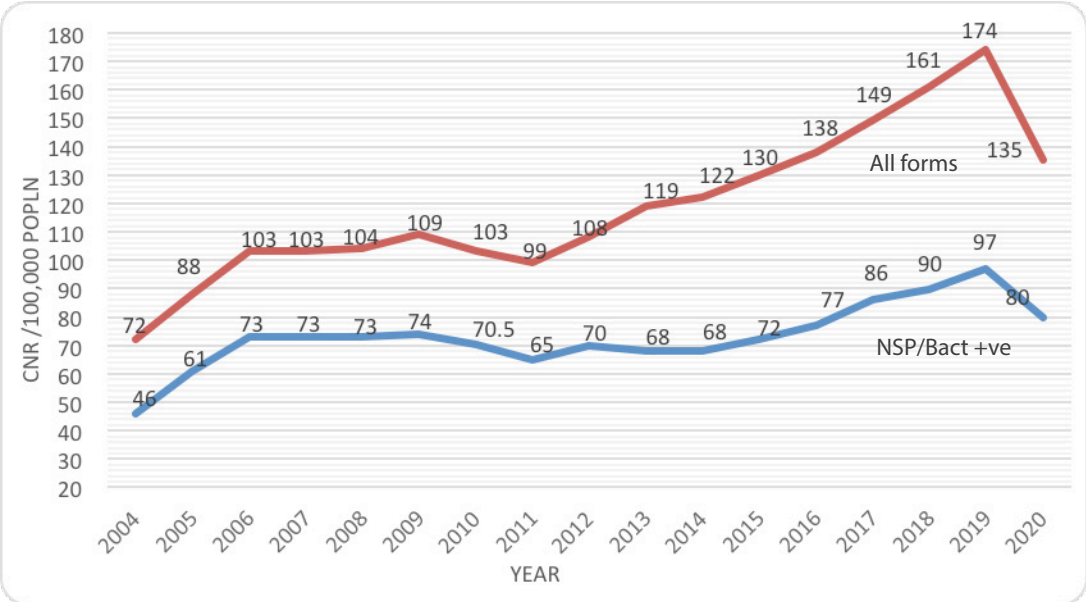
5.2 Case Notification

Case Notification Rate:

Case Notification rate (CNR) is defined as the number of TB cases registered and reported to NTP per one hundred thousand population per year.

The number of TB cases notified in Bangladesh has steadily increased since 2004. The rapid increase of bacteriologically confirmed pulmonary TB cases between 2004 and 2006 reflects enhanced case-finding with the establishment and scale-up of the DOTS program that achieved full coverage in all districts of Bangladesh in 2007. Between 2007 and 2014, bacteriologically confirmed pulmonary case notification remained relatively constant apart from a notable decline in 2011 that is explained by a gap in GFATM funding. The increase of bacteriological confirmed notifications beginning in 2015 to the most recent year may be attributed to the expansion of GeneXpert diagnostics and referral of samples to the GeneXpert testing hubs. During 2015 the notification of all forms of TB cases increased to reach 130/100,000 population and bacteriologically confirmed new cases increased to 71/100,000 population. This trend continued till 2020, the notification of all firms of TB cases were reached 135/100,000 population and bacteriologically confirmed new cases to 80/100,000 population as shown in the Fig 2.

Fig 2. Nationwide case notification rate/100 000 population: NSP/Bact +ve and all forms of TB; 2004-2020

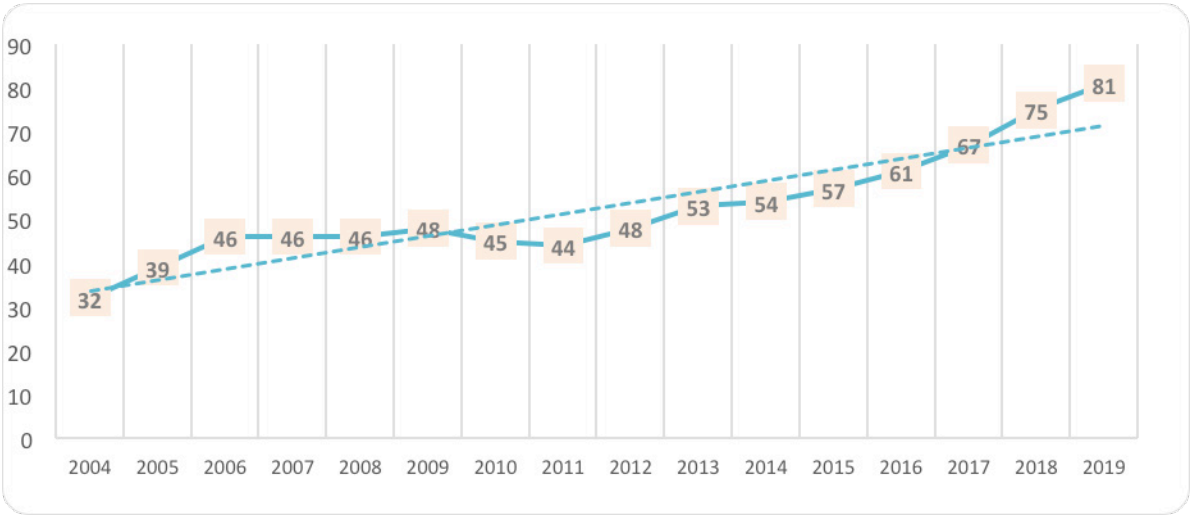


Case detection rate (CDR):

Case detection rate is defined as the number of cases detected expressed as a percentage of cases estimated to occur during a period of one year.

Now World Health Organization (WHO) is not providing any estimate for new smear positive cases, rather providing combined estimates for all new and relapse TB cases. According to this estimate the number of all forms (new and relapse) TB cases is *221/ per 100,000 populations in 2019. The case detection rate increased upto 81% from 75% in 2019 (*Ref Global TB report 2020). The trend of CDR from 2001- 2019 is shown in Figure 3.

Figure 3. TB case detection rate (all forms): 2001-2019



5.2.1 Nationwide Case Notification

A total of 230,880 cases were notified in 2020 (Among the total 230,880 cases, about 86.38% were reported through the upazilas. Over 59.30% of the cases were new pulmonary bacteriologically confirmed and only 2.18% were relapses. New pulmonary clinically diagnosed and extra-pulmonary cases were 17.32% and 18.30% respectively. Proportions of extra-pulmonary cases reported through metropolitan cities and CDCs were significantly higher than those reported through upazilas (Table 2).

Table 2: Case notification by type of reporting unit, 2019

Reporting unit	Pulmonary Bacteriologically Confirmed				Pulmonary Clinically Diagnosed				Extra-Pulmonary				All Retreatment Except relapses		Total	
	New/ Treatment History Unknown		Relapses		New/ Treatment History Unknown		Relapses		New/ Treatment History Unknown		Relapses					
	#	Row %	#	Row %	#	Row %	#	Row %	#	Row %	#	Row %	#	Row %	#	Column %
Upazila	125,647	63.00	3,758	1.88	36,125	18.11	3,589	1.80	28,466	14.27	1,183	0.59	658	0.33	199,426	86.38
Metro. city	10,265	35.57	1,210	4.19	3,414	11.83	435	1.51	12,787	44.31	626	2.17	124	0.43	28,861	12.50
CDC	1,002	38.64	67	2.58	440	16.97	26	1.00	991	38.22	50	1.93	17	0.66	2,593	1.12
Total	**136,914**	**59.30**	**5,035**	**2.18**	**39,979**	**17.32**	**4,050**	**1.75**	**42,244**	**18.30**	**1,859**	**0.81**	**799**	**0.35**	**230,880**	**100.00**

Over 43.72% of the total 230,880 notified cases were female; (M:F=1.29:1). In case of new pulmonary bacteriologically confirmed and new pulmonary clinically diagnosed cases proportions of female cases were 43.72% and 40.00% respectively; where as in case of new extra pulmonary cases it was 53.27% (Table 3).

Table. 3. Case notification by type of cases and sex, 2019

	Male		Female		Total	M / F Ratio
Type of cases	**Number**	**(%)**	**Number**	**(%)**		
New Pulmonary Bacteriologically Confirmed	77053.00	56.28	59,861	43.72	136,914	1.29
New Pulmonary Clinically Diagnosed	23,985	60.00	15,993	40.00	39,978	1.50
New Extra Pulmonary	19,741	46.73	22,503	53.27	42,244	0.88
Relapses	7,009	64.04	3,936	35.96	10,945	1.78
Treatment after failure	291	68.15	136	31.85	427	2.14
Treatment after loss to follow up	96	78.05	27	21.95	123	3.56
Others	176	70.68	73	29.32	249	2.41
Total	**128,351**	**55.59**	**102,529**	**44.41**	**230,880**	**1.25**

Age sex distribution of new pulmonary bacteriologically confirmed cases.

Among the notified new pulmonary bacteriologically confirmed cases the number of male patients are higher in all age groups except 5-14, 15-24, 25-34 and 35-44 where female cases are higher. About 59 percent of the reported cases belong to 15-54 years age group, who are economically most active. This proportion is comparatively higher among females than that among males (56% vs 44%). Over 18% of new pulmonary bacteriologically confirmed cases belong to age group ≥ 65 years and in this age group proportion is higher in males than in females (72% vs 28% among those 18%). The overall male–female ratio in these notified cases is 1.28 and the ratio increases with the age except in age group 35-44. In old people (≥ 65 years), there are about 3 times more men notified than women (Fig; 4 & 7).

Age sex distribution of new Pulmonary Clinically Diagnosed

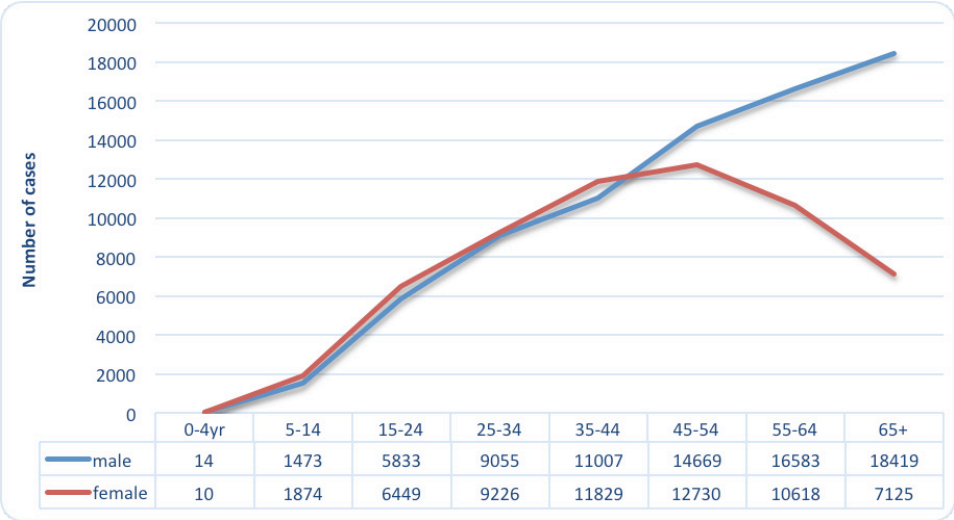
Figures 5 and 7 shows that the number of notified new pulmonary clinically diagnosed cases was almost equal in both sexes up to age 44 years. From 45 years and onwards the number of male cases was higher in all age groups and male–female ratio increases with the age to reach 3.36 in the age group ≥ 65 years (Figures 5 & 7).

Age sex distribution of new extra-pulmonary cases

In the age groups ranging from 05 to 54 years the number of female cases is more than that of male cases. And in all other age groups the number of male cases is also lower than that of female cases. (Fig 6 & 7).

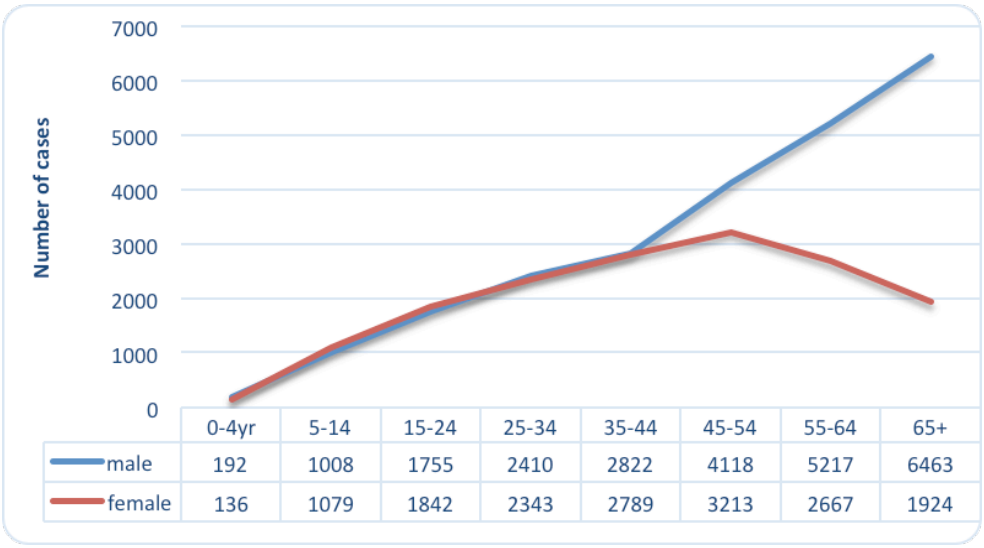
Nationwide case notification trend in absolute number is shown in figure 8.

Fig. 4: Notification of new pulmonary bacteriologically confirmed TB by age and sex, 2020



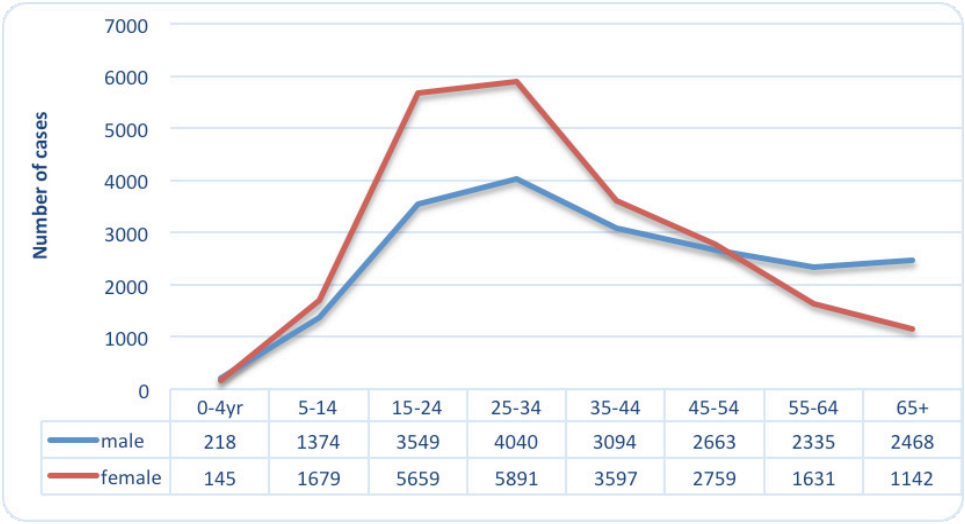
	0-4yr	5-14	15-24	25-34	35-44	45-54	55-64	65+
male	14	1473	5833	9055	11007	14669	16583	18419
female	10	1874	6449	9226	11829	12730	10618	7125

Fig. 5 Notification of new pulmonary clinically diagnosed TB by age and sex, 2020



	0-4yr	5-14	15-24	25-34	35-44	45-54	55-64	65+
male	192	1008	1755	2410	2822	4118	5217	6463
female	136	1079	1842	2343	2789	3213	2667	1924

Fig. 6 Notification of new extra- pulmonary TB by age and sex, 2020



	0-4yr	5-14	15-24	25-34	35-44	45-54	55-64	65+
male	218	1374	3549	4040	3094	2663	2335	2468
female	145	1679	5659	5891	3597	2759	1631	1142

Fig. 7 Male- Female Notification Ratio by age group: new pulmonary bacteriologically confirmed, new pulmonary clinically diagnosed & new extra-pulmonary TB cases, 2020

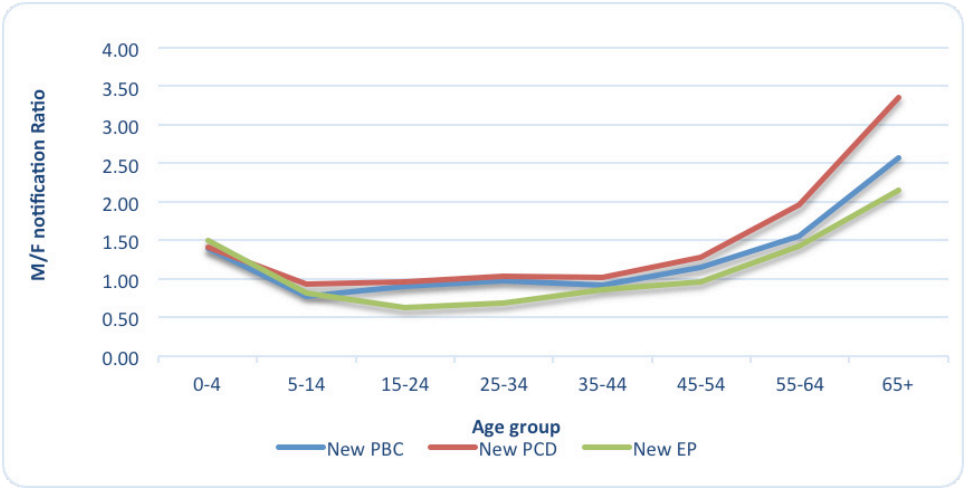


Fig. 8 Age-Sex wise CNR per 100,000 population of New Pulmonary and Extra Pulmonary TB cases, 2020

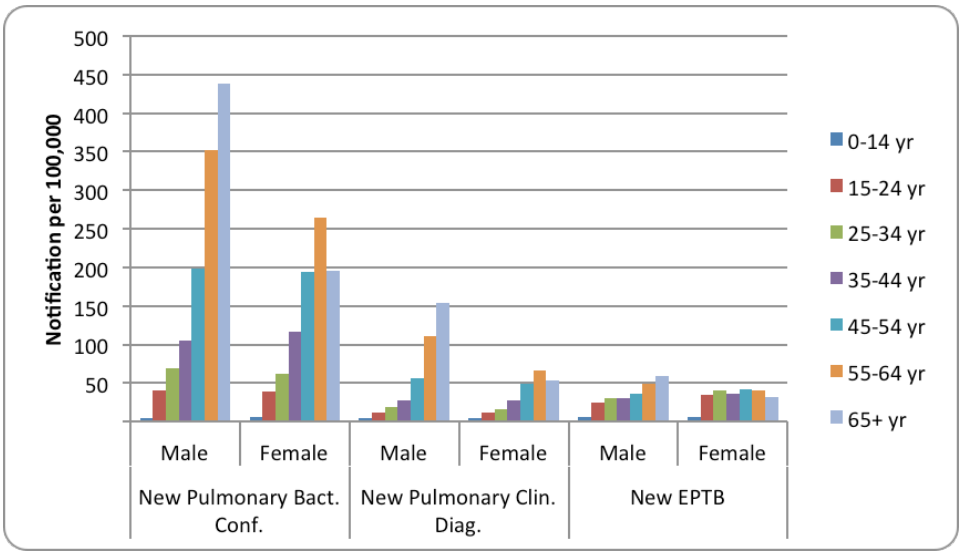
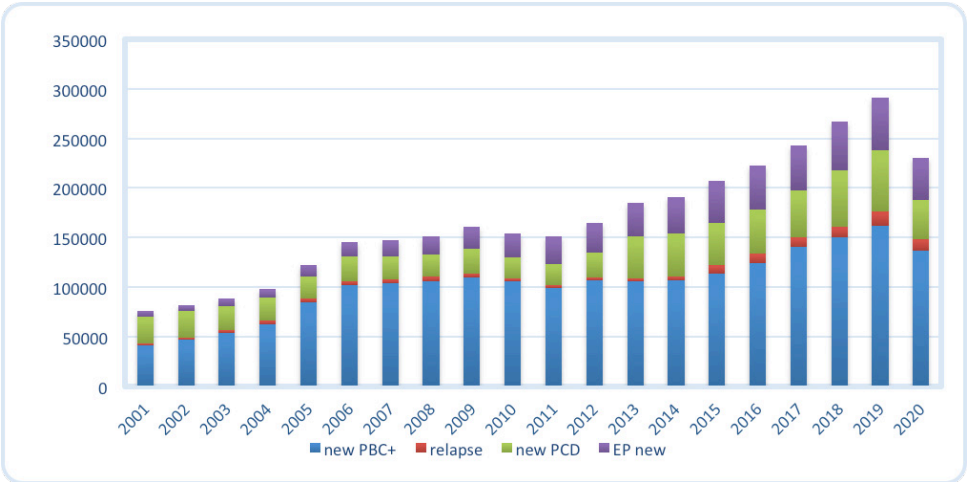


Fig. 9 Nationwide yearly case notification (all forms); absolute number; 2001-2020



5.2.2 Division-wise Case Notification; New Pulmonary Bacteriologically Confirmed Cases

Out of eight divisions, seven divisions showed new pulmonary bacteriologically confirmed TB case notification rate (CNR) of more than 72 (72.94-160.69) per one hundred thousand population in 2019, while the nationwide CNR was 97/100,000 population. For all forms of TB cases the nationwide CNR is 174/100,000 population. For all forms, Rajshahi having the lowest (126/100,000 population) and Khulna having the highest (224/100,000 population) CNR (Table 4).

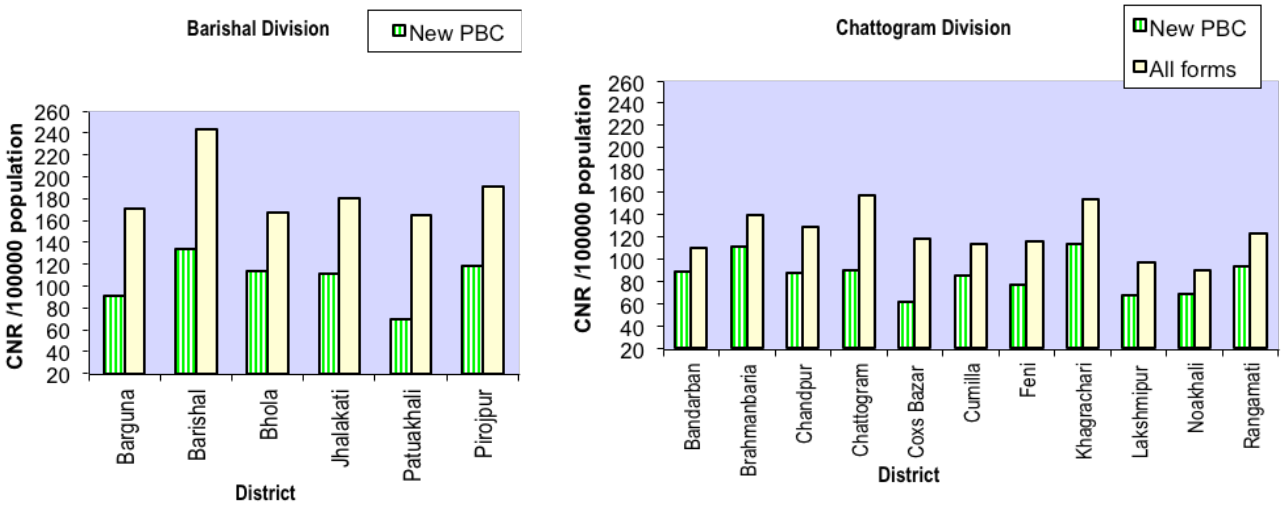
Table 4: Division-wise new pulmonary bacteriologically confirmed (PBC) & all forms of TB cases by type of reporting unit

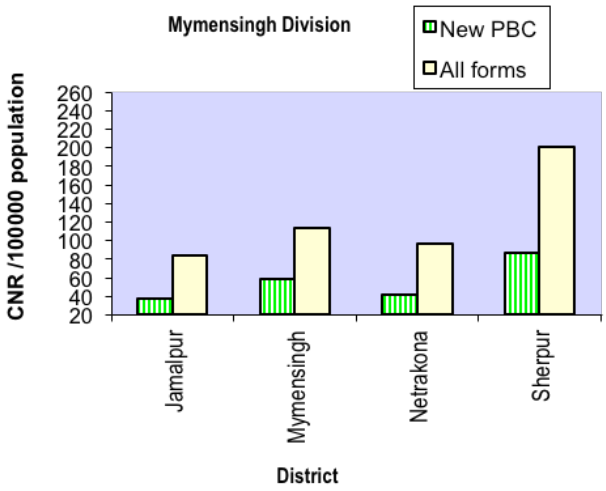
Division	Number of reported cases								Estimated Projected population of 2019	New PBC CNR /100000 population	All forms CNR /100000 population
	Upazila		Metro		CDC		Total				
	New PBC	All forms	New PBC	All forms	New PBC	All forms	New PBC	All forms			
Barishal	9,417	16,271	135	607	5	30	9,557	16,908	8793633	108.68	192.28
Chattogram	25,506	36,416	2,538	6,775	35	94	28,079	43,285	34223559	82.05	126.48
Dhaka	20,134	37,995	5,975	17,383	275	707	26,384	56,085	45082347	58.52	124.41
Khulna	25,598	31,847	448	1,335	199	440	26,245	33,622	17276302	151.91	194.61
Mymensingh	6,684	14,110	0	0	111	310	6,795	14,420	13595596	49.98	106.06
Rajshahi	12,091	19,067	415	1,117	299	815	12,805	20,999	21437866	59.73	97.95
Rangpur	13,681	24,533	0	0	54	143	13,735	24,676	18449371	74.45	133.75
Sylhet	12,536	18,530	754	1,519	19	37	13,309	20,086	12562951	105.94	159.88
Total	125,647	198,769	10,265	28,736	997	2,576	136,909	230,081	170184428	80.45	135.20

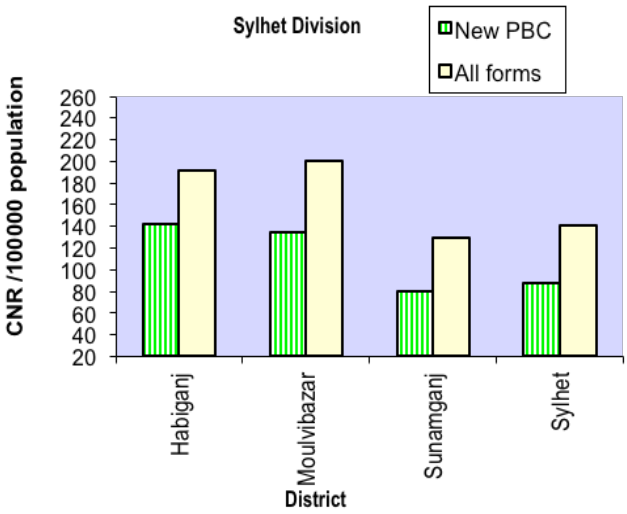
5.2.3 District-wise case notification rates CNR

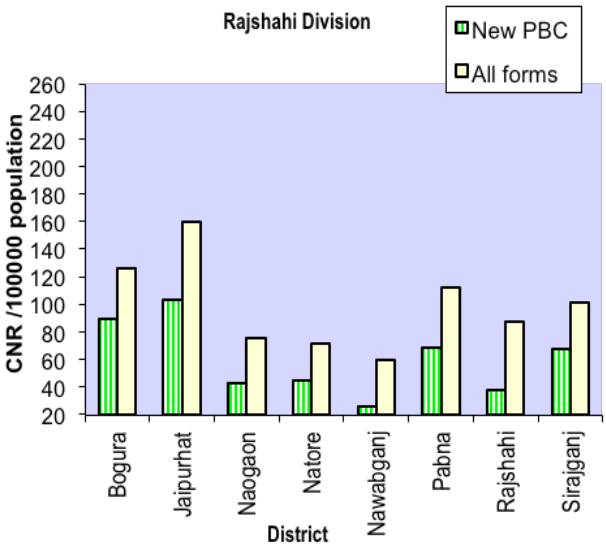
The district wise case notification rates of **each division in 2020 are shown in Figure 10** and details of case notification by **district are shown in Annex- 1**

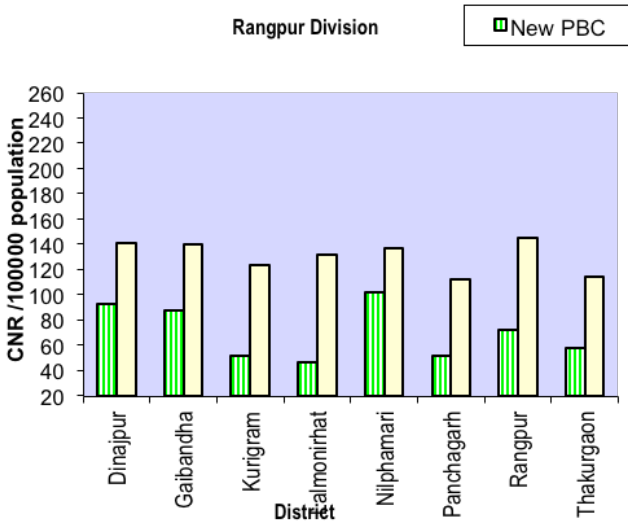
Fig. 10 District-wise CNR of New Pulmonary Bacteriologically Confirmed (PBC) and all forms of TB cases in 2020

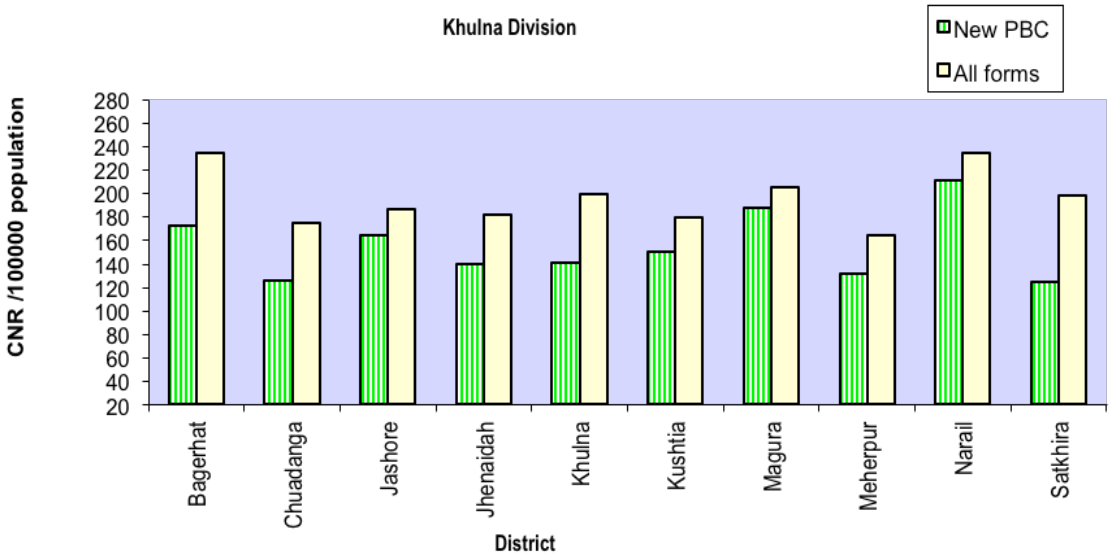


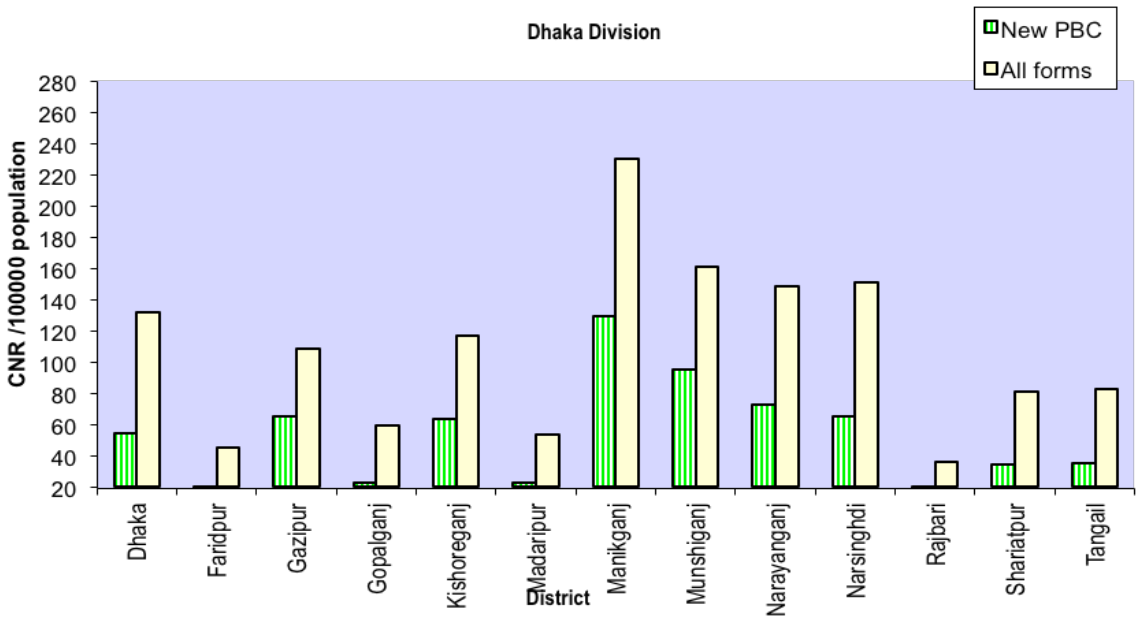

Mymensingh Division
New PBC
All forms
CNR /100000 population
260
240
220
200
180
160
140
120
100
80
60
40
20
Jamalpur
Mymensingh
Netrakona
Sherpur
District


Sylhet Division
New PBC
All forms
CNR /100000 population
260
240
220
200
180
160
140
120
100
80
60
40
20
Habiganj
Moulvibazar
Sunamganj
Sylhet
District

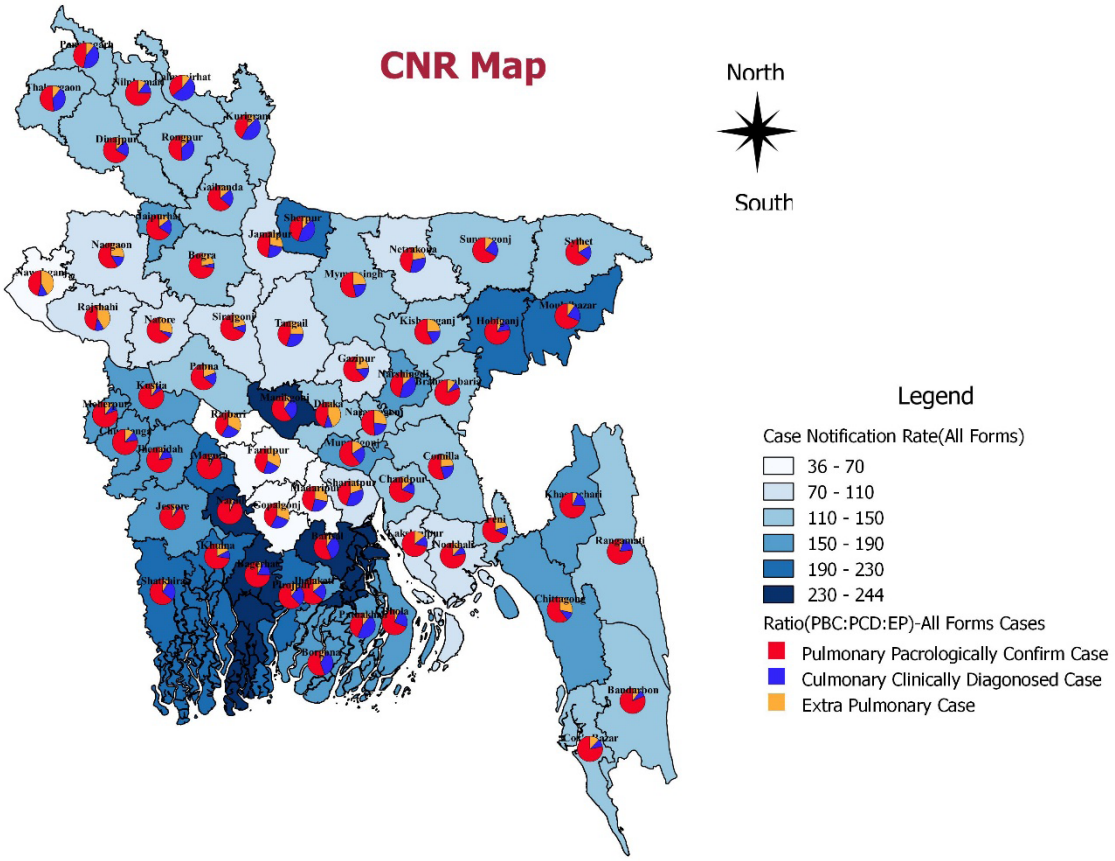

Rajshahi Division
New PBC
All forms
CNR /100000 population
260
240
220
200
180
160
140
120
100
80
60
40
20
Bogura
Jaipurhat
Naogaon
Natore
Nawabganj
Pabna
Rajshahi
Sirajganj
District


Rangpur Division
New PBC
CNR /100000 population
260
240
220
200
180
160
140
120
100
80
60
40
20
Dinajpur
Gaibandha
Kurigram
Lalmonirhat
Nilphamari
Panchagarh
Rangpur
Thakurgaon
District


Khulna Division
New PBC
All forms
CNR /100000 population
280
260
240
220
200
180
160
140
120
100
80
60
40
20
Bagerhat
Chuadanga
Jashore
Jhenaidah
Khulna
Kushtia
Magura
Meherpur
Narail
Satkhira
District


Dhaka Division
New PBC
All forms
CNR /100000 population
280
260
240
220
200
180
160
140
120
100
80
60
40
20
Dhaka
Faridpur
Gazipur
Gopalganj
Kishoreganj
Madaripur
Manikganj
Munshiganj
Narayanganj
Narsinghdi
Rajbari
Shariatpur
Tangail
District

CNR MAP


CNR Map
North
South
Legend
Case Notification Rate(All Forms)
36 - 70
70 - 110
110 - 150
150 - 190
190 - 230
230 - 244
Ratio(PBC:PCD:EP)-All Forms Cases
Pulmonary Pacrologically Confirm Case
Culmonary Clinically Diagonosed Case
Extra Pulmonary Case

5.3 Treatment Outcomes

All diagnosed TB patients are regularly registered for treatment. The treatment continues for six months (new cases) to eight months (re-treatment cases). At the end of the treatment, the patients are evaluated for assessing treatment outcomes. The possible outcomes are: cured, treatment completed, died, treatment failure, lost to follow up and transferred out. "Cured" and "treatment completed" are also grouped as "treatment success" or treatment with favorable outcome while "died", "treatment failure", "lost to follow up" and "transferred out" are considered as unfavorable outcomes. In the same way as case finding, treatment outcomes are also analyzed by the central NTP unit at three levels: national, divisional and district. This report includes the outcomes of the treatments in TB patients registered during 2017 from all sources (upazilas, metropolitan cities and CDCs).

Definitions of treatment outcomes

Cured: A pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smear- or culture-negative in the last month of treatment and on at least one previous occasion.

Treatment completed: A TB patient who completed treatment without evidence of failure BUT with no record to show that sputum smear or culture results in the last month of treatment and on at least one previous occasion were negative, either because tests were not done or because results are unavailable.

Died: A TB patient who dies for any reason before starting or during the course of treatment

Lost to follow up: A TB patient who did not start treatment or whose treatment was interrupted for 2 consecutive months or more.

Treatment failure: i) A bacteriologically confirmed TB patient whose sputum smear or culture is positive at month 5 or later during treatment. ii) A clinically diagnosed Pulmonary TB patient whose sputum smear becomes positive at month 2/3.

Transfer out: Patient moved to another registration unit and no known treatment outcome.

5.3.1 Nation-wide Treatment Outcomes

Treatment success rates under DOTS have been consistently high from the beginning and crossed the global target of 85% in 2003. After strengthening DOTS and ACSM activities the unfavourable outcomes have been remarkably reduced. The NTP has been maintaining over 91% treatment success rates since 2005 (Figure 11). In fact, the NTP has successfully treated 156,418 (96.49%) out of 162,106 new pulmonary bacteriologically confirmed cases registered in 2019. The lost to follow up rate was 0.48% while 2.27% of the patients have died during treatment (Figure 12).

Fig. 11: Trends in treatment success rates, 2005-2019 cohorts

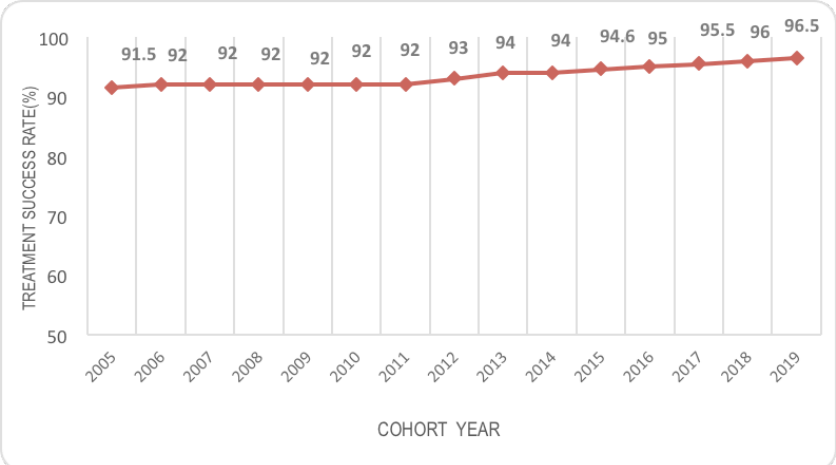
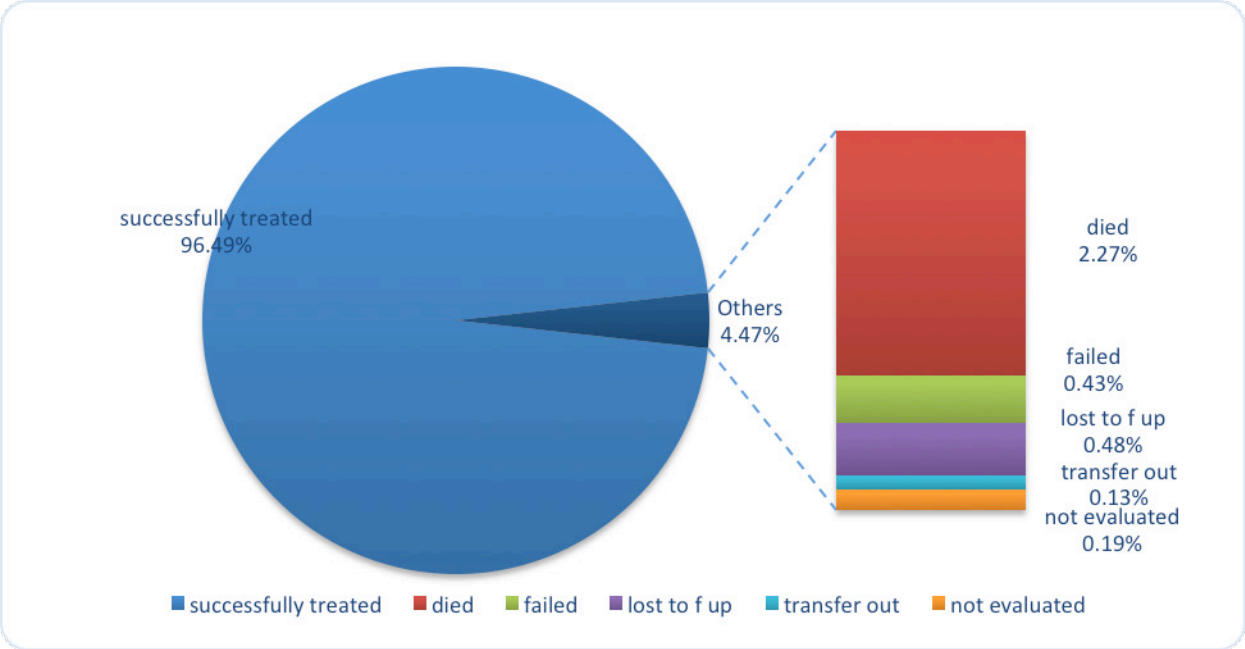


Fig.12: Treatment outcomes of new pulmonary bacteriologically confirmed cases registered in 2019

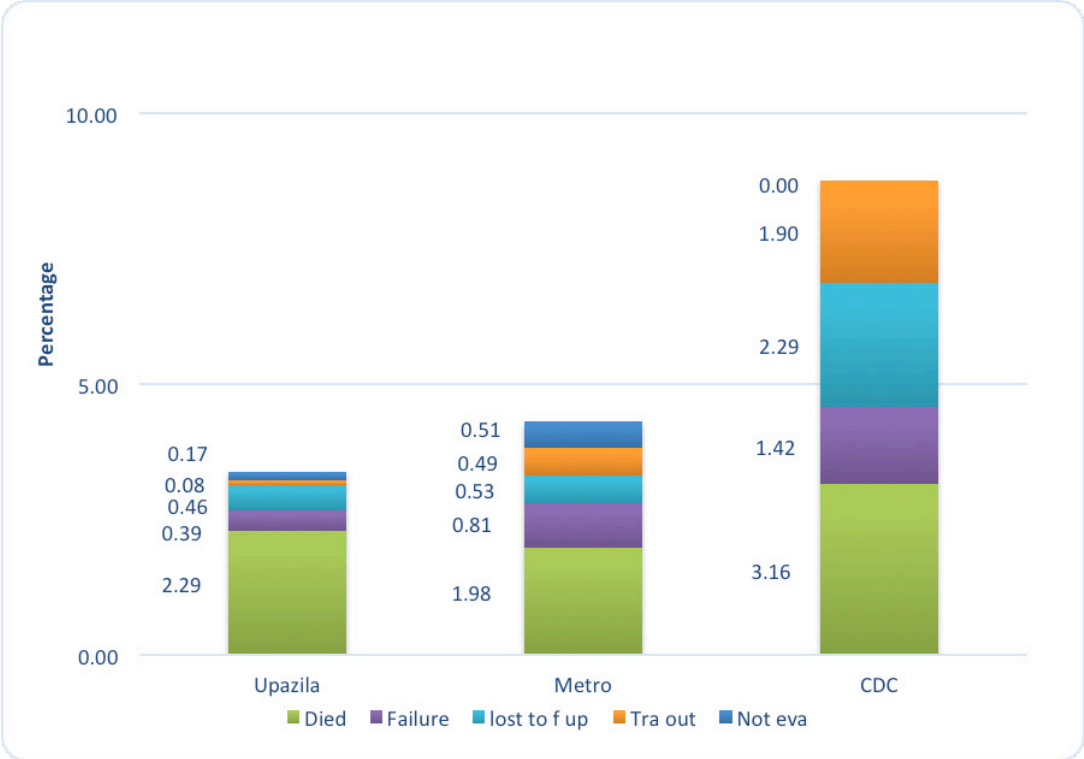


The treatment success rate of new pulmonary bacteriologically confirmed TB cases is highest (96.61%) among the cases registered in upazilas followed by among cases registered in metropolitan cities (95.70%) and the lowest is among those registered in CDCs (91.20%); (Table 5). This year the percentage of TB cases died has been reduced compared to the previous year (2.37% vs 2.27%) resulting in improving treatment success rate. The proportion of died, failure, lost to follow up and transferred out cases are higher in CDCs (Figure 13) resulting in lower treatment success rate. In order to further improve the treatment success rate, emphasis is to be given on getting feedback of transferred out cases with special emphasis in urban setting.

Table 5: Treatment success by type of registration unit (2019 cohort)

Type of registration unit	Number of cases registered	Treated successfully
Upazilla	147,076	142,049 (96.61%)
Metropolitan city	13,765	13,107 (95.70%)
CDC	1,265	1,154 (91.20%)
Total country	**162106**	**156,418 (96.49%)**

Fig. 13: Unfavorable treatment outcomes of new pulmonary bacteriologically confirmed cases by type of registration unit (2019 cohort)



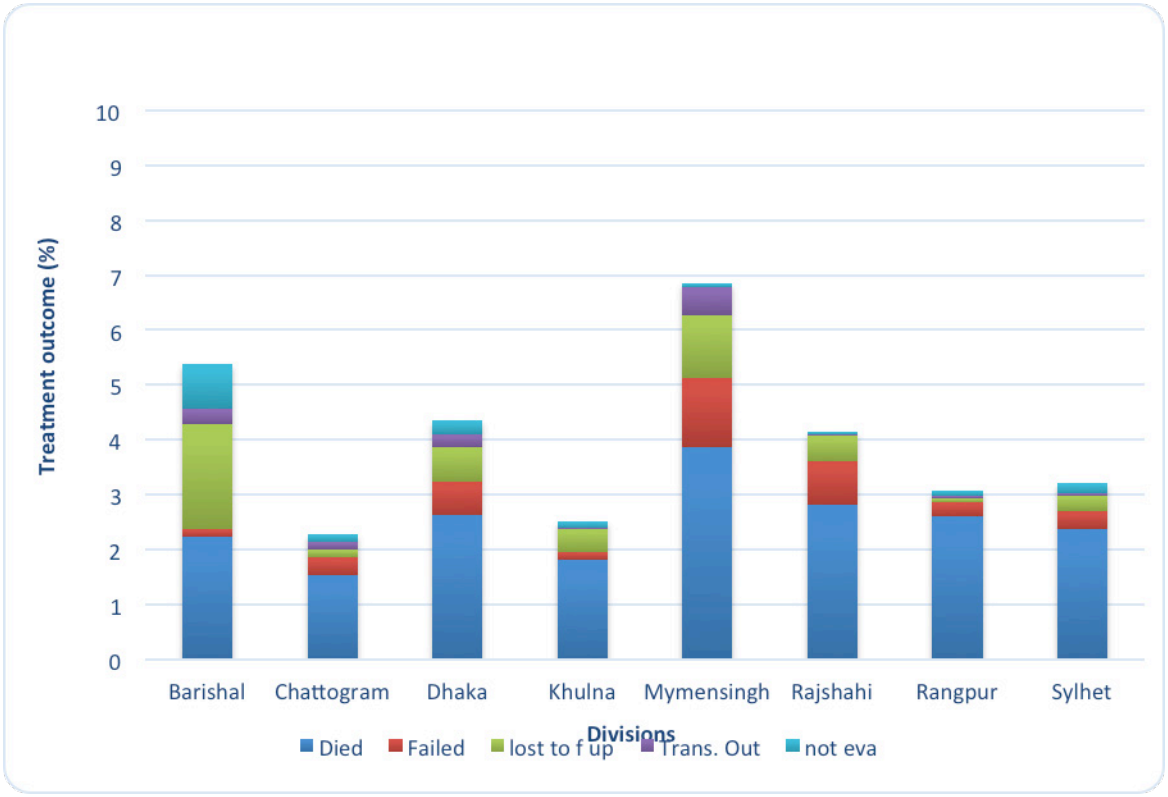
5.3.2 Division-wise Treatment Outcomes

Table 6 shows that all eight divisions have successfully treated more than 93% of the new pulmonary bacteriologically confirmed cases registered in 2019 with overall treatment success rate of over 96.49%. Division wise unfavorable outcomes are shown in fig 14. The patients died in the divisions during TB treatment varied from 1.53% to 3.87% while the failure rate varied from 0.14% to 1.24%. The lost to follow up rate among those patients varied from 0.08% to 1.91%. Data shown in Figure 14 include also metropolitan cities and CDCs.

Table 6: Division-wise treatment success rate of new pulmonary bacteriologically confirmed cases registered in 2019

Division	Number of cases registered	Successfully treated
Barisal	9,978	**9,440 (94.61%)**
Chittagong	37,768	**36,908 (97.72%)**
Dhaka	32,167	**30,764 (95.64%)**
Khulna	27,585	**26,890 (97.48%)**
Mymensingh	8,601	**8,012 (93.15%)**
Rajshahi	15,807	**15,152 (95.86%)**
Rangpur	15,648	**15,167 (96.93%)**
Sylhet	14,552	**14,085 (96.79%)**
Total country	**162106**	**156,418 (96.49%)**

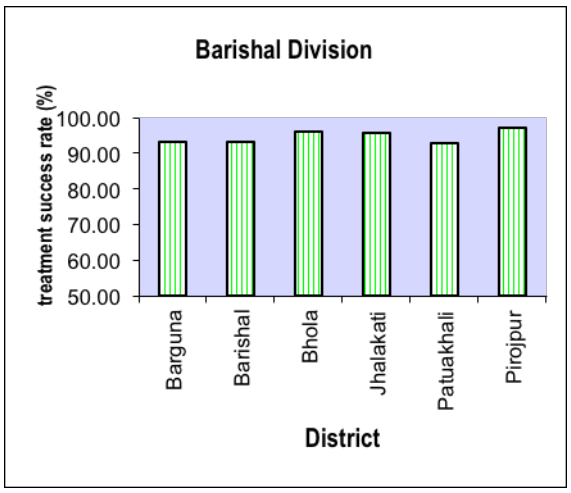
Fig. 14: Unfavorable outcomes of new pulmonary bacteriologically confirmed cases by division, 2019 cohort

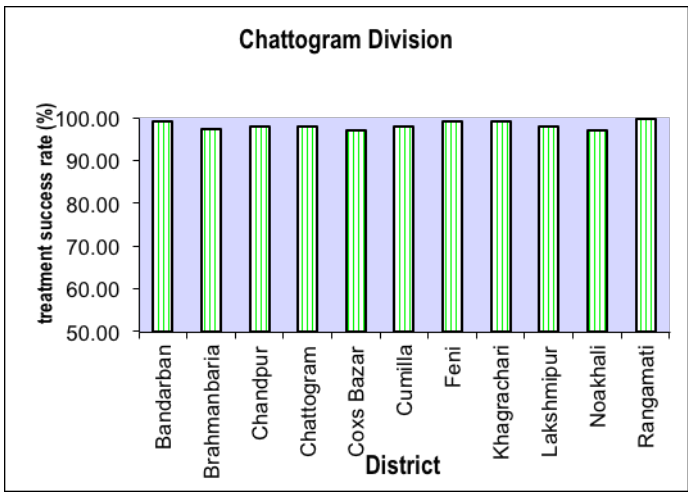


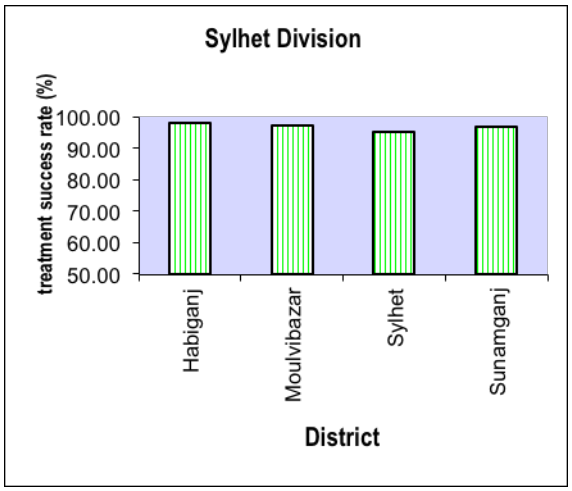
5.3.3 District-wise Treatment Outcomes

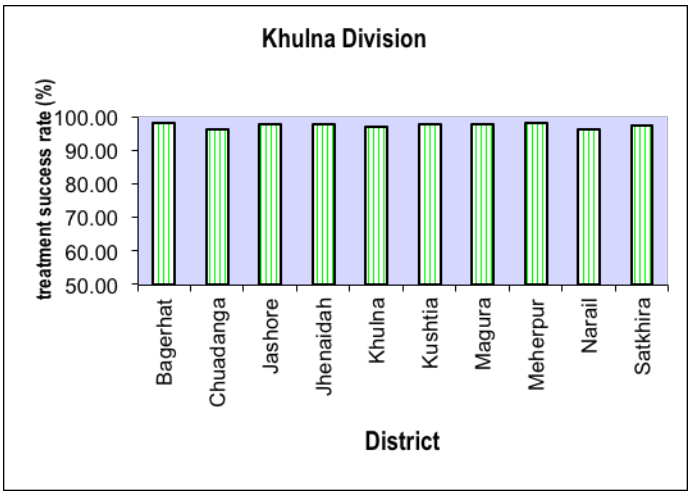
The treatment success rates of new pulmonary bacteriologically confirmed cases in each district registered in 2019 are shown in Figure 15. Almost all the districts are showing over 90% treatment success rates.

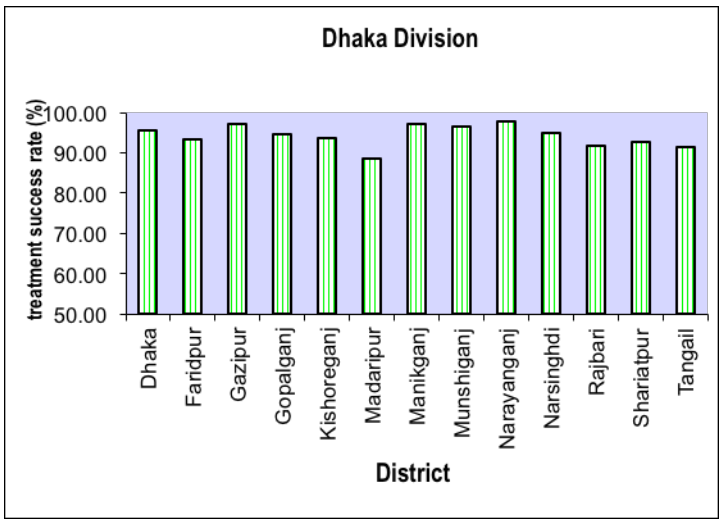
Fig.15 District-wise treatment success rates of new pulmonary bacteriologically confirmed cases for each division; 2019 cohort

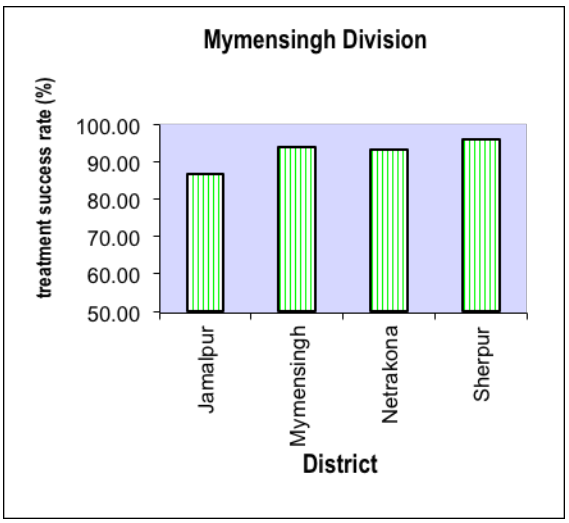


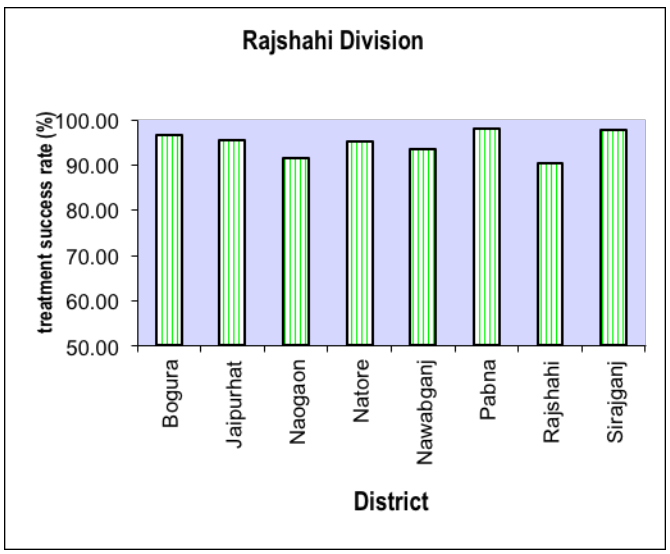


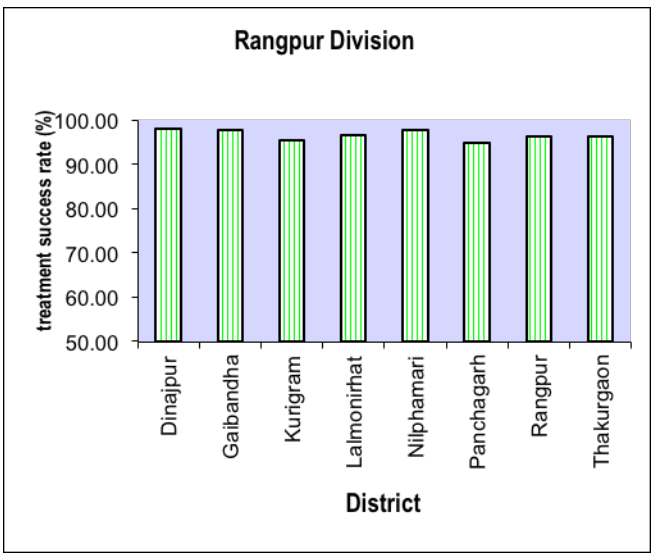

Sylhet Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Habiganj
Moulvibazar
Sylhet
Sunamganj
District


Khulna Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Bagerhat
Chuadanga
Jashore
Jhenaidah
Khulna
Kushtia
Magura
Meherpur
Narail
Satkhira
District


Dhaka Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Dhaka
Faridpur
Gazipur
Gopalganj
Kishoreganj
Madaripur
Manikganj
Munshiganj
Narayanganj
Narsinghdi
Rajbari
Shariatpur
Tangail
District


Mymensingh Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Jamalpur
Mymensingh
Netrakona
Sherpur
District


Rajshahi Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Bogura
Jaipurhat
Naogaon
Natore
Nawabganj
Pabna
Rajshahi
Sirajganj
District


Rangpur Division
treatment success rate (%)
100.00
90.00
80.00
70.00
60.00
50.00
Dinajpur
Gaibandha
Kurigram
Lalmonirhat
Nilphamari
Panchagarh
Rangpur
Thakurgaon
District

5.3.4 Treatment outcomes of relapse, new pulmonary clinically diagnosed and extra-pulmonary (new) cases

In 2019 a total of 13,634 relapse, 62,032 new pulmonary clinically diagnosed and 53,143 extra-pulmonary TB cases were registered. The treatment success rate of relapse cases was 92.59%, and treatment completion rates of new pulmonary clinically diagnosed and extra-pulmonary cases were 93.87% and 90.63% respectively. During the course of treatment 522 (3.83%) relapse, 2,466 (3.98%) pulmonary clinically diagnosed and 1,816 (3.42%) extra-pulmonary cases had died; over all death rate of these three categories was 3.73%.

6. Drug Resistant TB

Drug-resistant TB threatens global TB care and prevention, and it remains a major public health concern in many countries. The Global number of MDR/RR –TB cases notified in 2019 was 44% of the estimated 465,000 incident cases in 2019 (*Ref: WHO Global TB report 2020*).

Globally in 2019, 61% of people with bacteriologically confirmed TB were tested for rifampicin resistance, up from 51% in 2018. Coverage of testing was 59% for new and 81% for previously treated TB patients. A global total of 206,030 people with MDR/RR-TB were detected and notified in 2019, a 10% increase from 186,883 in 2018, and 177,099 people were enrolled in treatment, up from 156,205 in 2018.

According to Global TB Report, the proportion of new TB cases with RR/MDR-TB was 1.6% and that of previously treated cases with RR/MDR-TB was 29% upto year 2017. In 2018, that proportion changed to 1.5% and 4.9% for new TB cases and previously treated cases respectively. Finally, from DRS survey, the proportion of new TB cases with RR/MDR-TB found 0.7% and that of previously treated cases with RR/MDR-TB found 12.4%. On these assumptions the estimated total numbers of MDR-TB cases in 2011 to 2019 in the country are shown in Table-7. In 2019 the notified new pulmonary cases were 224,580 and previously treated pulmonary TB cases were 12,741.

Table 7. Annual estimated number of MDR-TB cases in Bangladesh (2011-2020)

Year	Among new PTB cases	Among previously treated pulmonary TB cases includingrelapse	Total
2011	1700	2100	3800
2012	1850	2300	4150
2013	2071	2425	4496
2014	2094	2703	4797
2015	2512	2507	5019
2016	2714	2571	5285
2017	3011	2557	5568
2018	3093	521	3614
2019	1572	1402	2974
2020			

For diagnosis and management of multidrug resistant TB (MDR-TB), a National TB Reference Laboratory (NTRL) has been established in National Institute of Diseases of Chest and Hospital (NIDCH). The NTRL have been functioning since 27th June 2007 for culture and Drug Sensitivity Test (DST). It is linked with supranational reference laboratory (SRL) in Antwerp, Belgium. In August 2008 NIDCH started enrolment of MDR TB patients with GLC approved 24 months regimen and supported by the Global fund. As a part of Programmatic Management of Drug resistant TB (PMDT) plan NTP established one Regional TB Reference Laboratory (RTRL) at chest disease hospital (CDH), Chittagong in 2011 and also managing MDR-TB patients from that year. In 2013 NTP has also started managing MDR-TB in CDH of Pabna and Khulna. In CDH Khulna, an RTRL has been established in 2015.

The MDR TB patients are also managed in the CDH Rajshahi and in three other hospitals of Damien Foundation at Jalchatra under Tangail District, Anantapur under Netrokona District and Shambhuganj under Mymensingh District. A regional TB reference laboratory (RTRL) has been established in the CDH, Rajshahi in May 2008. The programme has been initiating around 900 patients consistently over past 4 years. Following the endorsement of Shorter MDR treatment regimen WHO in May 2016 the NTP Bangladesh initiated shorter regimen and scaled up all over the country by end of 2018.

As of 31 December 2020, countrywide a total of 9,785 MDR TB patients were enrolled for treatment including 975 in 2020. Among the 975 patients in 2020, 101 are under longer regimen and 874 under shorter regimen.

Criteria for Presumptive DR-TB cases:

- Failures of Category I and II
- Non-converters of Category I and II
- All relapses
- All return after loss to follow up
- Close contacts of MDR-TB patient with symptoms.
- All HIV infected patients
- Others: Any Smear Negative or EP TB patients clinically not improving in spite of proper treatment.

The MDR patients diagnosed and enrolled for management are shown in the Table below:

Table 8: Summary, MDR TB Enrolment for Treatment

Year	Longer regimen						Short regimen							Grand Total
	NIDCH	CDH, CTG	CDH, Pabna	CDH, Khulna	CDH, Sylhet	Total	Under operational research (3 DF and Rajshahi)	NIDCH	CDH, CTG	CDH, Pabna	CDH, Khulna	CDH, Sylhet	Total	
2005 May-2007							(67+69+106) = 242						242	242
2008	107					107	129						129	236
2009	179					179	181						181	360
2010	183					183	154						154	337
2011	212	41				253	137						137	390
2012	290	86				376	129						129	505
2013	330	120	31	14		495	191						191	686
2014	447	123	31	61	54	716	230						230	946
2015	430	121	26	43	60	680	200						200	880
2016	461	113	21	60	95	750	168						168	918
2017	145	114	24	62	81	426	211	279				4	494	920
2018	102	67	13	1	4	187	237	489	57	13	71	93	960	1,147
2019	112	104	3	0	4	223	249	478	52	5	106	130	1,020	1,243
2020	94	2	0	0	5	101	202	393	104	8	69	93	874	975
Total	**3,092**	**891**	**149**	**241**	**303**	**4,676**	**2,660**	**1,639**	**213**	**26**	**246**	**320**	**5,109**	**9,785**

Treatment outcome of MDR-TB patients under GLC approved 24 months regimen:

Diagnosed MDR-TB patients are enrolled for treatment. The treatment continues for 20-24 months. Initially hospital duration was 6-8 months and rest period patients were treated in the community. From 2012 management modality has been modified with initial hospitalization for 1-2 months followed by community management for the rest period. At the end of the treatment, the patients are evaluated to assess treatment outcomes.

The overall trend of treatment success rates of MDR-TB patients is increasing. Table 9 shows the treatment outcomes of the patients enrolled during 2008- 2016 under 24 months regimen.

Table 9: Treatment Outcomes MDR TB, 2008 - 2018 Cohorts

Year	Registered	Shifted from shorter regimen	Confirmed MDR	Outcomes Abs #						Outcomes Percentage							Evaluation
				Cured	Treat completed	Failed	Lost to Follow up	Died	No Result/ Still on treatment	Cured	Treat completed	Failed	Lost to follow up	Died	No Result/ Still on treatment	Treatment Success	
2008	107		104	61	6	1	28	8	0	58.7	5.8	1.0	26.9	7.7	0.0	64.42	After 36 months
2009	179		167	104	9	3	30	21	0	62.3	5.4	1.8	18.0	12.6	0.0	67.66	After 36 months
2010	183		175	99	24	0	25	27	0	56.6	13.7	0.0	14.3	15.4	0.0	70.29	After 36 months
2011	253		240	153	14	4	34	34	01	63.3	6.3	1.7	14.2	14.2	0.4	69.58	After 30 months
2012	376		372	236	35	3	50	42	5	63.4	9.4	0.8	13.4	11.3	1.3	72.85	After 30 months
2013	495		495	333	27	1	51	59	22	67.3	5.5	0.2	10.3	11.9	4.4	72.73	After 30 months
2014	716		716	233	271	0	73	109	23	32.5	37.8	0	10.2	15.2	3.2	70.39	After 24 months
2015	680		680	324	198	3	56	78	12	47.6	29.1	0.4	8.2	11.5	1.8	76.76	After 24 months
2016	750		750	467	100	19	57	93	5	62.3	13.3	2.5	7.6	12.4	0.7	75.60	After 24 months
2017	426	69	494	288	79	11	45	51	14	58.3	16.0	2.2	9.1	10.3	2.8	74.29	After 24 months
2018	186	34	220	111	42	6	36	21	1	50.45	19.09	2.73	16.36	9.55	0.45	69.55	After 24 months

Treatment outcome of MDR-TB patients 9 months regimen:

Under an operational research NTP in collaboration with DF Bangladesh has been managing MDR-TB Patients with 9 months regimen since 2008 and showing a good results with treatment success rates of 76% for the cohort registered in 2019 (Table 10). NTP already enrolled 874 MDR TB in shorter regimen during the year 2020. The treatment outcome of the cohort will be known by next year.

Table 10: Treatment outcome of MDR-TB patients under 9 months regimen

Year	Registered	Shifted to longer regimen	Confirmed MDR	Outcomes Abs #						Outcomes Percentage							Evaluation
				Cured	Treat completed	Failed	Lost to Follow up	Died	No Result/ Still on treatment	Cured	Treat completed	Failed	Lost to Follow up	Died	No Result/ Still on treatment	Treatment Success	
2008	129		129	103	0	3	12	6	5	79.84	0	2.3	9.3	4.65	3.876	79.84	after 1 year
2009	181		181	138	5	2	16	11	9	76.24	2.76	1.1	8.84	6.08	4.972	79.01	after 1 year
2010	154		154	125	2	2	17	8	0	81.17	1.3	1.3	11	5.19	0	82.47	after 1 year
2011	137		137	102	0	9	22	4	0	74.45	0	6.6	16.1	2.92	0	74.45	after 1 year
2012	129		129	91	2	2	18	16	0	70.54	1.55	1.55	13.95	12.4	0	72.09	after 1 year
2013	191		191	152	1	4	8	23	3	79.59	0.52	2.09	4.19	12.04	1.57	80.1	after 1 year
2014	230		230	195	2	7	16	10	0	84.78	0.87	3.04	6.96	4.35	0	85.65	after 1 year
2015	200		200	165	2	6	13	12	2	82.5	1.0	3.0	6.5	6.0	1.0	83.5	after 1 year
2016	168		168	146	0	1	7	14	0	86.9	0	0.6	4.17	8.33	0	86.9	after 1 year
2017	494	69	425	296	8	28	53	33	7	69.65	1.88	6.59	12.47	7.76	1.65	71.53	after 1 year
2018	960	33	927	622	75	35	100	67	16	67.01	8.09	3.78	10.79	7.23	1.73	75.19	after 1 year
2019	1029	17	1012	524	231	24	117	73	12	0.52	0.23	0.02	0.12	0.07	0.01	76.00%	after 1 year

7. LABORATORY ACTIVITIES

7.1 Sputum Microscopy and Quality Assurance

Quality assured smear microscopy services which are essential part of TB control program are available through a large laboratory network in Bangladesh. Under NTP during 2020, sputum microscopy was performed in 1136 laboratories across the country and sputum samples from a total of 16,12,101 presumptive TB cases were tested for AFB, out of which 113,816 cases were sputum smear positive (positivity rate 7.1%). As follow up of treatment a total number of 467,411 sputum slides were tested; out of which 2.6% were found positive. (Detailed lab report for the year 2020 is shown in Annex -3)

In 2020 number of EQA lab remains same as of 2019 i.e., 40. All 1136 laboratories were brought under the quality assurance network of the EQA centers. Assessment reports had been received from these EQA centers (List of EQA centers shown in Annex -4).

Lot quality assurance sampling method was used for quantifying the number of slides to be rechecked. Each month five slides were selected from each laboratory. Slides were blindly rechecked by a first controller. A total of 64,346 slides were rechecked. This sample contained approximately the same distribution as the pool from where they were selected i.e. 3,692 (5.74%) positive, 1,239 (1.93%) scanty and 59,415 (92.34%) negative. For comparison the error rates (%) found in 2015, 2016, 2017, 2018 and 2019 are also shown in the same table below (Table: 11).

Table 11: Result of blinded rechecking of AFB smears

Type of error	Number (2020)	Rate (2020)	Rate (2019)	Rate (2018)	Rate (2017)	Rate (2016)	Rate (2015)
Total False positive by MCs	38	0.77%	0.75%	0.79%	0.94%	0.97%	1.00%
High false positive	13	0.26%	0.33%	0.07%	0.17%	0.33%	0.26%
Low/scanty false positive	25	0.51%	0.43%	0.72%	0.77%	0.64%	0.74%
Total False negative by MCs	149	0.25%	0.22%	0.26%	0.34%	0.39%	0.50%
High false negative	27	0.05%	0.07%	0.06%	0.13%	0.21%	0.25%
Low/scanty false negative	122	0.21%	0.15%	0.20%	0.21%	0.18%	0.25%
Quantification error (QE) by MCs	125	2.53%	2.36%	2.19%	2.44%	2.63%	3.30%

7.2 National Tuberculosis Reference Laboratory (NTRL)

On 27th June 2007 the National Tuberculosis Reference Laboratory (NTRL) formally started functioning. NTRL is the WHO/The Union recommended TB reference laboratory of NTP. It is the only National level laboratory for GLC-Approved project. Along with previous microscopy (Z-N stain, Fluorescent Stain, and FDA staining), Culture (conventional culture both in solid and liquid media and identification) and DST(conventional DST in solid media, AST in liquid media by proportionate method); new diagnostic techniques such as GeneXpert and LPA (line probe assay) were introduced in 2012. GeneXpert_machines are used for detection of MTB and RR TB and this service assist NTP in two ways: (i) diagnosis and follow up of drug resistant forms of TB and (ii) Monitoring drug resistant trends through periodically conducting drug resistant surveys. LPA was introduced through Expand TB project at NTRL under NTP. By December 2014 this project was phased out and related activities were handed over to NTP.

Table: 12. Performance of GeneXpert Machines in detecting DR-TB

Year	Number of GenXpert Installed (Cumulative)	Presumptive–DR TB Tested	Presumptive–DS TB Tested	RR TB Diagnosed
2012	12	1,733		388 (22.4%)
2013	26	11,852		811 (6.8%)
2014	39	43,360		994 (2.3%)
2015	39	3,9176		893 (2.28%)
2016	39	47,141		980 (2.08%)
2017	96	77,560		944 (1.22%)
2018	192	69,329	135,695	1,228 (0.60%)
2019	223	78,977	214,555	1,373 (0.47%)
2020		53258	201286	1046(0.41%)

Table: 13 (B). Performance through LPA in detecting DR-TB

YEAR	PRESUMPTIVE–TB TESTED	MTB POSITIVE	RESISTANT TB				
			1ST LINE			2ND LINE	
			HR	R	H	PRE-XDR	XDR
2012	705	220	213	18	32		
2013	869	265	180	43	49		
2014	320	154	48	12	21		
2015	428	403	53	10	30		
2016	105	104	12	1	10		
2017	315	255				56	1
2018	853	548				108	10
2019	1248	764				97	8
2020	736	547				64	5

7. 3 Regional Tuberculosis Reference Laboratory (RTRL) in Rajshahi, Chittagong and Khulna

On 10th May 2008 Regional Tuberculosis Reference Laboratory was formally inaugurated in Rajshahi Chest Disease Hospital. Damien Foundation is providing technical support for this laboratory. Culture and drug susceptibility Test (DST) for Tuberculosis are done within shortest duration by this laboratory. The RTRL in Chittagong has started its function since October 2010. After completion and renovation and installation of instrument (in 2014), Khulna RTRL has been formally inaugurated on 30 June 2015.

8.TB/HIV Co-infection

TB/HIV co- infection denotes two diseases in one body**.** HIV/AIDS and TB are so closely connected that the term "co-epidemic" "dual epidemic" or "twin epidemic" is often used to describe their relationship. The two diseases represent a deadly combination, since they are more destructive together than either disease alone. HIV affects the immune system and increases the likelihood of people acquiring new TB infection. It also promotes both the progression of latent TB infection to active disease and relapse of the disease in previously treated patients. On the other hand presence of TB bacteria in the body of a HIV infected people accelerate the progress of HIV infection to AIDS. TB is one of the leading causes of death in HIV-infected people.

Diagnosis of TB/HIV Co-infection

The diagnosis of TB means that a patient has symptomatic disease due to lesions caused by *M. tuberculosis*. The definitive diagnosis of HIV infection rests on a positive HIV test.

Diagnosis of TB in HIV patients

The diagnosis of tuberculosis is more difficult in HIV-positive people. Even then sputum smear examination for AFB remains the cornerstone of diagnosis to identify infectious patients so that transmission can be stopped by treating with anti-TB drugs. However according to new policy, HIV infected persons with symptoms/signs of TB should be referred for GeneXpert test. Support of X-Ray and other diagnostic methods may also be taken for diagnosis of other types of TB cases.

Practical points

- TB is harder to diagnose in HIV-positive people.
- TB progresses faster in HIV-infected people.
- TB in HIV-positive people is almost certain to be fatal if undiagnosed or left untreated.
- TB is the leading cause of HIV related morbidity and mortality
- HIV is the most important factor fuelling the TB epidemic.

TB/HIV Activities:

Table 14: HIV among Diagnosed TB Patients in 2014-2020

Category of TB Patients	2015		2016		2017		2018		2019		2020	
	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment	# tested for HIV before or during TB treatment	# found HIV positive before or during TB treatment
New pulmonary bacteriologically confirmed	268	15	1,977	8	2,001	8	1,421	4	5,013	9	4636	4
New pulmonary clinically diagnosed	79	1	526	3	479	0	306	0	1,403	0	1133	2
New Extra-pulmonary	131	0	1,245	3	1,123	6	716	4	1,851	4	1743	6
All re-treatment	28	1	282	0	285	0	276	0	866	1	766	4
MDR	145	0	117	0	29	0	112	1	439	0	359	0
Total	**651**	**17**	**4,147**	**14**	**3,917**	**14**	**2,831**	**9**	**9,572**	**14**	**8637**	**16**

Table 15: TB among PLWHA in 2015-2020

# of PLWHA tested for TB						# of PLWHA diagnosed as TB	Number					
Year 2015	Year 2016	Year 2017	Year 2018 (AAS)	Year 2019	Year 2020	Type of TB	Year 2015	Year 2016	Year 2017	Year 2018 (AAS)	Year 2019	Year 2020
479	**697**	**559**	**295**	**478**	**523**	New pulmonary bacteriologically confirmed	17	33	17	9	44	23
						New pulmonary clinically diagnosed	22	22	28	26	30	21
						New Extra-pulmonary	28	18	30	16	25	17
						All re-treatment	7	14	14	13	21	23
						Total	**74**	**87**	**89**	**64**	**120**	**84**

9. TRAINING COURSES AND WORKSHOP

The development of skilled health staff in NTP is a prerequisite for a successful programme. NTP being primary responsible for training, plans all aspects of training and workshop with government and non-government entities to determine training content, develop materials, identify health staff to be trained, ensure training course implementation, and follow up for new hires and maintenance of training. Tables 16 and 17 give an overview of the activities related to training and workshop/ meeting on TB control performed by NTP January to December 2020. Besides these, 77 monitoring meetings in each quarter are organized at 64 districts.

Table 16: Tuberculosis training activities-2020

Subject	Duration (Days)	Category of Participants	Funding Source & No. of participants	
			GFATM	GOB
Training of Lab staffs on Culture and DST	14	Microbiologist/Medical Technologist	0	-
2-Day Training on Procurement and Supply Chain Management and Logistics	2	Store Keeper/ TLCA	116	-
2-Day Training for Mid Level staff on DRTB & IC	2	Senior Staff Nurse	75	-
Management Training on X-Ray, EP, PMDT, IC, TB/ HIV	5	UH&FPO, MO(DC), Junior Consultant (CDC)	95	-
Train and retrain HIV counselor and other staff to identify and refer presumptive TB cases	1	Medical Assistant/ Senior Staff Nurse	-	-
2-Day Training on Field-level Ambulatory MDR-TB Patient Management	2	UH&FPO, MO, Junior Consultant (CDC), PO, TLCA, Staff Nurse, NGO Personals	160	-
Training of Doctors on Diagnosis of Child TB	3	UH&FPO, MO, Junior Consultant (CDC)	109	-
1-Day Orientation on Sputum Collection and Transportation from Peripheral Laboratory to Gene Xpert Centre (NTRL/RTRL)	1	PO/ Upazila Manager/ TLCA	106	-
3-Day Training/ Retraining on Programmatic Management of Drug Resistant TB (PMDT)	3	CDH/ CDC/ Upazila/ Urban DOT Centre	-	-
6- Day refresher Training on LED Fluorescence Microscopy	6	MT/ TA- Lab, TLCA	177	-
3-Day Training on Gene Xpert Testing	3	MT/ TA- Lab, TCA	318	-
1-Day Training on TB for CHCP	1	CHCP	-	-

Table 17: Workshop and Meeting related to TB Control-2020

Subject	Duration (Days)	Category of participants	Funding Source & No. of participants	
			GFATM	GOB
Quarterly coordination/ partners meeting including divisional TB Experts	1	GO-NGO personals involved TB control program	97	-
Quarterly M&E working group meeting at central level	1	GO-NGO personals involved TB control program	77	-
Quarterly TB Technical Committee meeting	1	GO-NGO personals involved TB control program	63	-
Child TB working group meeting	1	GO-NGO personals involved TB control program	19	-
Annual monitoring meeting (City corporation)	1	GO-NGO personals involved TB control program	65	-
Bi-annual coordination/ partners meeting at national level (MDR-TB)	1	GO-NGO personals involved TB control program	63	-
Bi-annual TB & HIV NGOs coordination committee meeting	1	GO-NGO personals involved TB control program	48	-

Annex – 1: District Wise CNR, 2020

SL.	District	Patient Registered in Metro							Total							Grand Total	P. Population	New PBC CNR as per 1,00,000 pop.	All Forms CNR as per 1,00,000 pop.
		Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment	Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment				
		New/ Treatment History Unknown	Relapses	New/ Treatment History Unknown	Relapses	New/ Treatment History Unknown	Relapses		New/ Treatment History Unknown	Relapses	New/ Treatment History Unknown	Relapses	New/ Treatment History Unknown	Relapses					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Barguna								881	43	465	133	130	10	5	1667	970,599	90.77	171.23
2	Barishal	135	14	233	16	199	10	1	3204	73	1915	115	475	30	4	5816	2,386,642	134.25	243.52
3	Bhola								2169	35	733	71	194	7	0	3209	1,917,480	113.12	167.36
4	Jhalakati								778	30	255	24	166	8	1	1262	699,136	111.28	180.37
5	Patuakhali								1160	32	895	372	269	15	6	2749	1,668,191	69.54	164.43
6	Pirojpur								1370	13	535	71	224	8	0	2221	1,159,300	118.17	191.58
	Barishal Div	135	14	233	16	199	10	1	9562	226	4798	786	1458	78	16	16924	8,793,633	108.74	192.28
7	Bandarban								456	3	40	7	55	4	1	566	512,471	88.98	110.25
8	Brahmanbaria								3825	51	364	43	493	22	13	4811	3,435,259	111.35	139.67
9	Chandpur								2324	37	562	30	447	15	2	3417	2,655,705	87.51	128.59
10	Chattogram	2538	309	789	177	2843	119	32	8094	423	1257	250	3870	166	45	14105	8,975,989	90.17	156.64
11	Cumilla								3997	158	1571	100	1732	47	29	7634	6,458,746	61.89	117.75
12	Coxs Bazar								2569	88	265	67	399	18	9	3415	2,996,255	85.74	113.68
13	Feni								1305	39	208	27	383	15	3	1980	1,706,231	76.48	115.87
14	Khagrachari								835	10	209	3	71	4	0	1132	733,959	113.77	154.23
15	Lakshmipur								1395	35	229	54	275	9	1	1998	2,053,903	67.92	97.23
16	Noakhali								2608	56	324	44	385	34	5	3456	3,820,759	68.26	90.32
17	Rangamati								671	8	155	2	42	1	2	881	714,987	93.85	122.94
Chattogram Div		2538	309	789	177	2843	119	32	28079	908	5184	627	8152	335	110	43395	34,223,559	82.05	126.48
18	Dhaka	5975	766	1753	200	8247	442	67	9327	885	2143	221	9474	504	87	22641	17,121,185	54.48	131.73
19	Faridpur								403	29	196	21	310	8	23	990	2,144,872	18.79	45.08
20	Gazipur								3676	171	807	70	1375	68	10	6177	5,670,722	64.82	108.75
21	Gopalganj								281	25	176	18	209	16	15	740	1,224,916	22.94	59.19
22	Kishoreganj								2139	109	654	88	910	31	43	3974	3,355,952	63.74	117.14
23	Madaripur								277	24	154	12	179	7	23	676	1,230,887	22.50	53.05
24	Manikganj								2006	128	990	106	336	15	0	3581	1,555,347	128.97	230.24
25	Munshiganj								1583	34	523	107	392	24	0	2663	1,658,803	95.43	160.54
26	Narayanganj								2930	131	1146	164	1547	83	2	6003	4,045,095	72.43	148.35
27	Narsinghdi								1742	102	1564	105	500	11	3	4027	2,671,024	65.22	150.65
28	Rajbari								160	15	94	15	130	11	11	436	1,190,812	13.44	35.69

SL.	District	Patient Registered in Metro							Total							Grand Total	P. Population	New PBC CNR as per 1,00,000 pop.	All Forms CNR as per 1,00,000 pop.
		Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment	Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment				
		New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses		New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
29	Shariatpur								433	26	334	34	192	10	12	1041	1,273,846	33.99	80.78
30	Tangail								1427	78	904	112	812	32	58	3423	4,065,400	35.10	82.77
Dhaka Div		5975	766	1753	200	8247	442	67	26384	1757	9685	1073	16366	820	287	56372	45,082,347	58.52	124.41
31	Jamalpur								958	62	468	57	574	29	40	2188	2,569,778	37.28	83.59
32	Mymensingh								3470	185	1371	155	1512	107	105	6905	5,961,889	58.20	114.06
33	Netrakona								1080	82	700	81	518	28	27	2516	2,565,249	42.10	97.03
34	Sherpur								1287	48	1108	163	365	12	4	2987	1,489,637	86.40	200.25
Mymensingh Div		0	0	0	0	0	0	0	6795	377	3647	456	2969	176	176	14596	13,595,596	49.98	106.06
35	Bagerhat								2533	30	554	69	252	10	1	3449	1,470,477	172.26	234.48
36	Chuadanga								1641	123	218	43	241	12	5	2283	1,300,603	126.17	175.15
37	Jashore								5217	58	208	6	437	13	7	5946	3,178,575	164.13	186.84
38	Jhenaidah								2855	43	539	22	262	3	1	3725	2,039,821	139.96	182.57
39	Khulna	448	10	292	14	561	10	4	3313	70	459	33	791	19	4	4689	2,354,112	140.73	199.01
40	Kushtia								3363	31	224	25	368	17	2	4030	2,236,263	150.38	180.12
41	Magura								1977	20	54	1	97	4	0	2153	1,051,322	188.05	204.79
42	Meherpur								984	13	102	4	127	1	3	1234	746,839	131.76	164.83
43	Narail								1635	35	33	8	95	2	0	1808	772,350	211.69	234.09
44	Satkhira								2727	44	1157	36	360	4	0	4328	2,182,033	124.98	198.35
Khulna Div		448	10	292	14	561	10	4	26245	467	3548	247	3030	85	23	33645	17,276,302	151.91	194.61
45	Bogura								3503	75	271	14	1051	40	37	4991	3,942,943	88.84	125.64
46	Jaipurhat								1053	19	280	41	228	7	0	1628	1,016,811	103.56	160.11
47	Naogaon								1234	45	286	37	567	15	15	2199	2,911,469	42.38	75.01
48	Natore								872	35	85	3	386	13	6	1400	1,966,599	44.34	70.88
49	Nawabganj								503	38	136	6	459	27	7	1176	1,951,455	25.78	59.90
50	Pabna								2040	104	559	15	614	19	3	3354	2,995,947	68.09	111.85
51	Rajshahi	415	58	102	14	501	27	18	1149	87	268	28	1048	48	36	2664	3,021,146	38.03	86.99
52	Sirajganj								2451	79	381	5	748	27	13	3704	3,646,742	67.21	101.21
Rajshahi Div		415	58	102	14	501	27	18	12805	482	2266	149	5101	196	117	21116	21,437,866	59.73	97.95
53	Dinajpur								3216	50	1009	25	569	20	7	4896	3,470,515	92.67	140.87
54	Gaibandha								2389	39	816	40	505	6	5	3800	2,719,093	87.86	139.57
55	Kurigram								1252	18	1336	38	372	4	3	3023	2,446,408	51.18	123.45
56	Lalmonirhat								682	10	1001	21	200	5	0	1919	1,458,040	46.78	131.62

SL.	District	Patient Registered in Metro							Total							Grand Total	P. Population	New PBC CNR as per 1,00,000 pop.	All Forms CNR as per 1,00,000 pop.
		Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment	Pulmonary Bacteriologically Confirmed		Pulmonary Clinically Diagnosed		Extra-Pulmonary		All Retreatment				
		New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses		New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses	New/Treatment History Unknown	Relapses					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
57	Nilphamari								2224	21	429	19	293	8	1	2995	2,189,103	101.59	136.77
58	Panchagarh								613	11	554	11	140	4	4	1337	1,190,419	51.49	111.98
59	Rangpur								2420	51	1608	172	590	29	16	4886	3,350,100	72.24	145.37
60	Thakurgaon								939	20	665	30	200	2	3	1859	1,629,965	57.61	113.87
Rangpur Div		0	0	0	0	0	0	0	13735	220	7418	356	2869	78	39	24715	18,449,371	74.45	133.75
61	Habiganj								3617	148	641	42	405	7	2	4862	2,534,553	142.71	191.75
62	Moulvibazar								3124	83	916	108	423	29	3	4686	2,330,235	134.06	200.97
63	Sunamganj								2478	189	726	154	418	15	20	4000	3,075,845	80.56	129.40
64	Sylhet	754	53	245	14	436	17	3	4090	178	1149	53	1053	40	6	6569	4,651,844	87.92	141.08
Sylhet Div		754	53	245	14	436	17	3	13309	598	3432	357	2299	91	31	20117	12,562,951	105.94	159.88
Grand Total :		10265	1210	3414	435	12787	625	125	136914	5035	39978	4051	42244	1859	799	230880	170,184,428	80.45	135.20

Annex 2: District-wise Treatment Results, new pulmonary bacteriologically confirmed cases registered in 2019

SL.	District	Absolute numbers							Percentage					
		Res. Case	Succ. Treated	Died	Fail	Def.	T. Out	Not Eva.	Succ. Treated	Died	Fail	Def.	T. Out	Not Eva
1	Barguna	1004	936	23	3	33	4	5	93.23	2.29	0.30	3.29	0.40	0.50
2	Barishal	2396	2236	54	2	58	4	42	93.32	2.25	0.08	2.42	0.17	1.75
3	Bhola	2602	2495	43	4	31	13	16	95.89	1.65	0.15	1.19	0.50	0.61
4	Jhalakati	959	917	24	0	8	2	8	95.62	2.50	0.00	0.83	0.21	0.83
5	Patuakhali	1710	1588	56	5	48	4	9	92.87	3.27	0.29	2.81	0.23	0.53
6	Pirojpur	1307	1268	23	0	13	1	2	97.02	1.76	0.00	0.99	0.08	0.15
	Barishal Div	9978	9440	223	14	191	28	82	94.61	2.23	0.14	1.91	0.28	0.82
7	Bandarban	525	521	2	0	0	2	0	99.24	0.38	0.00	0.00	0.38	0.00
8	Brahmanbaria	4376	4252	92	13	11	2	6	97.17	2.10	0.30	0.25	0.05	0.14
9	Chandpur	3213	3142	42	10	3	6	10	97.79	1.31	0.31	0.09	0.19	0.31
10	Chattogram	11290	11048	141	48	15	30	8	97.86	1.25	0.43	0.13	0.27	0.07
11	Cumilla	5266	5110	119	26	9	1	1	97.04	2.26	0.49	0.17	0.02	0.02
12	Coxs Bazar	3524	3451	54	16	0	1	2	97.93	1.53	0.45	0.00	0.03	0.06
13	Feni	1707	1690	12	3	0	0	2	99.00	0.70	0.18	0.00	0.00	0.12
14	Khagrachari	961	952	6	0	0	1	2	99.06	0.62	0.00	0.00	0.10	0.21
15	Lakshmipur	2121	2076	32	7	4	2	0	97.88	1.51	0.33	0.19	0.09	0.00
16	Noakhali	3994	3877	78	2	8	7	22	97.07	1.95	0.05	0.20	0.18	0.55
17	Rangamati	791	789	1	1	0	0	0	99.75	0.13	0.13	0.00	0.00	0.00
	Chattogram Div	37768	36908	579	126	50	52	53	97.72	1.53	0.33	0.13	0.14	0.14
18	Dhaka	11646	11137	240	77	75	52	65	95.63	2.06	0.66	0.64	0.45	0.56
19	Faridpur	465	434	20	8	3	0	0	93.33	4.30	1.72	0.65	0.00	0.00
20	Gazipur	4199	4081	82	12	18	5	1	97.19	1.95	0.29	0.43	0.12	0.02
21	Gopalganj	370	350	16	3	1	0	0	94.59	4.32	0.81	0.27	0.00	0.00
22	Kishoreganj	2076	1945	78	32	10	11	0	93.69	3.76	1.54	0.48	0.53	0.00
23	Madaripur	328	291	23	7	7	0	0	88.72	7.01	2.13	2.13	0.00	0.00
24	Manikganj	2277	2215	56	3	1	0	2	97.28	2.46	0.13	0.04	0.00	0.09
25	Munshiganj	2316	2234	51	3	12	2	14	96.46	2.20	0.13	0.52	0.09	0.60
26	Narayanganj	3621	3539	55	15	8	0	4	97.74	1.52	0.41	0.22	0.00	0.11
27	Narsinghdi	2356	2234	97	7	18	0	0	94.82	4.12	0.30	0.76	0.00	0.00
28	Rajbari	238	218	14	3	3	0	0	91.60	5.88	1.26	1.26	0.00	0.00
29	Shariatpur	444	411	27	3	3	0	0	92.57	6.08	0.68	0.68	0.00	0.00
30	Tangail	1831	1675	85	25	40	5	1	91.48	4.64	1.37	2.18	0.27	0.05
	Dhaka Div	32167	30764	844	198	199	75	87	95.64	2.62	0.62	0.62	0.23	0.27
31	Bagerhat	2639	2591	43	1	0	0	4	98.18	1.63	0.04	0.00	0.00	0.15
32	Chuadanga	1900	1828	55	4	7	1	5	96.21	2.89	0.21	0.37	0.05	0.26
33	Jashore	5313	5200	82	5	21	2	3	97.87	1.54	0.09	0.40	0.04	0.06

SL.	District	Absolute numbers							Percentage					
		Res. Case	Succ. Treated	Died	Fail	Def.	T. Out	Not Eva.	Succ. Treated	Died	Fail	Def.	T. Out	Not Eva
34	Jhenaidah	2994	2927	34	1	26	0	6	97.76	1.14	0.03	0.87	0.00	0.20
35	Khulna	3589	3481	73	17	11	1	6	96.99	2.03	0.47	0.31	0.03	0.17
36	Kushtia	4037	3947	80	6	4	0	0	97.77	1.98	0.15	0.10	0.00	0.00
37	Magura	2090	2041	41	1	6	0	1	97.66	1.96	0.05	0.29	0.00	0.05
38	Meherpur	1025	1007	10	4	4	0	0	98.24	0.98	0.39	0.39	0.00	0.00
39	Narail	1542	1482	23	0	29	0	8	96.11	1.49	0.00	1.88	0.00	0.52
40	Satkhira	2456	2386	56	4	6	0	4	97.15	2.28	0.16	0.24	0.00	0.16
	Khulna Div	27585	26890	497	43	114	4	37	97.48	1.80	0.16	0.41	0.01	0.13
41	Jamalpur	1217	1055	65	30	54	12	1	86.69	5.34	2.47	4.44	0.99	0.08
42	Mymensingh	4405	4136	153	51	31	29	5	93.89	3.47	1.16	0.70	0.66	0.11
43	Netrakona	1357	1266	54	23	14	0	0	93.29	3.98	1.69	1.03	0.00	0.00
44	Sherpur	1622	1555	61	3	1	2	0	95.87	3.76	0.18	0.06	0.12	0.00
	Mymensingh Div	8601	8012	333	107	100	43	6	93.15	3.87	1.24	1.16	0.50	0.07
45	Bogura	4881	4709	127	17	25	0	3	96.48	2.60	0.35	0.51	0.00	0.06
46	Jaipurhat	1221	1167	46	2	6	0	0	95.58	3.77	0.16	0.49	0.00	0.00
47	Naogaon	1158	1060	64	23	10	0	1	91.54	5.53	1.99	0.86	0.00	0.09
48	Natore	1235	1174	40	14	7	0	0	95.06	3.24	1.13	0.57	0.00	0.00
49	Nawabganj	577	540	25	10	2	0	0	93.59	4.33	1.73	0.35	0.00	0.00
50	Pabna	2336	2287	42	6	1	0	0	97.90	1.80	0.26	0.04	0.00	0.00
51	Rajshahi	1189	1076	57	30	23	1	2	90.50	4.79	2.52	1.93	0.08	0.17
52	Sirajganj	3210	3139	45	22	2	2	0	97.79	1.40	0.69	0.06	0.06	0.00
	Rajshahi Div	15807	15152	446	124	76	3	6	95.86	2.82	0.78	0.48	0.02	0.04
53	Dinajpur	3555	3485	66	4	0	0	0	98.03	1.86	0.11	0.00	0.00	0.00
54	Gaibandha	2403	2346	50	5	0	1	1	97.63	2.08	0.21	0.00	0.04	0.04
55	Kurigram	1524	1454	59	6	4	0	1	95.41	3.87	0.39	0.26	0.00	0.07
56	Lalmonirhat	1135	1094	31	7	0	0	3	96.39	2.73	0.62	0.00	0.00	0.26
57	Nilphamari	2328	2276	42	1	0	1	8	97.77	1.80	0.04	0.00	0.04	0.34
58	Panchagarh	927	880	38	7	1	0	1	94.93	4.10	0.76	0.11	0.00	0.11
59	Rangpur	2486	2390	80	8	5	3	0	96.14	3.22	0.32	0.20	0.12	0.00
60	Thakurgaon	1290	1242	42	2	2	0	2	96.28	3.26	0.16	0.16	0.00	0.16
	Rangpur Div	15648	15167	408	40	12	5	16	96.93	2.61	0.26	0.08	0.03	0.10
61	Habiganj	3666	3591	65	8	1	0	1	97.95	1.77	0.22	0.03	0.00	0.03
62	Moulvibazar	3279	3189	76	9	2	0	3	97.26	2.32	0.27	0.06	0.00	0.09
63	Sunamganj	3118	2971	82	14	32	0	19	95.29	2.63	0.45	1.03	0.00	0.61
64	Sylhet	4489	4334	124	14	7	7	3	96.55	2.76	0.31	0.16	0.16	0.07
	Sylhet Div	14552	14085	347	45	42	7	26	96.79	2.38	0.31	0.29	0.05	0.18
	Grand Total :	162106	156418	3677	697	784	217	313	96.49	2.27	0.43	0.48	0.13	0.19

Annex 3: Lab Report 2020

Quarter	Diagnosis Examinations (Case Finding)						Follow-up Examinations			
	Presumptive TB tested	AFB positive cases	Positivity Rate among presumptive	Smears tested	Positive smears		Smears tested	Positive smears		Positivity Rate
					(1+, 2+ & 3+)	Scanty		(1+, 2+ & 3+)	Scanty	
1st	531,654	33,232	6.25	1,054,760	48,049	17,482	141,326	827	2,984	2.70
2nd	160,916	15,545	9.66	319,583	22,051	8,713	124,701	402	1,345	1.40
3rd	397,624	32,039	8.06	791,444	46,034	17,308	100,924	620	2,353	2.95
4th	521,907	33,000	6.32	1,039,444	47,955	16,997	100,460	967	2,831	3.78
Total	1,612,101	113,816	7.06	3,205,231	164,089	60,500	467,411	2,816	9,513	2.64

Annex 4: List of EQA Center 2020

Division	EQA ID	Location of EQA 1st Control Centre	Organization	Coverage (district)	# of MCs Coverage
Rajshahi	1	CDC Bogura	BRAC	Bogura	31
	2	CDC Dinajpur	BRAC	Jaipurhat	8
	6	CDC Sirajganj	BRAC	Natore	11
				Pabna	16
				Sirajganj	16
	7	CDH/DF Rajshahi	DF	Naogaon	12
				Nawabganj	7
				Rajshahi	19
Rangpur	1	CDC Bogura	BRAC	Gaibandha	20
	2	CDC Dinajpur	BRAC	Dinajpur	28
	3	CDC Rangpur	BRAC	Nilphamari	15
				Rangpur	21
	4	TLMB Thakurgaon	TLMB	Panchagarh	8
				Thakurgaon	10
	5	RDRS Lalmonirhat	RDRS	Kurigram	16
				Lalmonirhat	7
Khulna	8	CDC Jashore	BRAC	Jashore	20
				Narail	7
	36	CDC Bagerhat	BRAC	Bagerhat	17
	9	CDC Khulna	BRAC	Khulna	25
	40	CDC Satkhira	BRAC	Satkhira	16
	10	CDC Magura	BRAC	Jhenaidah	12
				Magura	10
	11	CDC Meherpur	BRAC	Chuadanga	10
				Kushtia	13
				Meherpur	6
Barishal	12	CDC Barishal	BRAC	Barishal	25
	38	CDC Bhola	BRAC	Bhola	16
	13	CDC Patuakhali	BRAC	Barguna	10
				Patuakhali	16
	14	CDC Pirojpur	BRAC	Jhalakati	9
				Pirojpur	12
Sylhet	15	CDC Sylhet	BRAC	Sunamganj	15
				Sylhet (urban)	9
	16	HEED Kamlgonj/Moulvibazar	HEED	Sylhet (rural)	15
	17	CDC Moulvibazar	HEED	Habiganj	12
				Moulvibazar	12

Division	EQA ID	Location of EQA 1st Control Centre	Organization	Coverage (district)	# of MCs Coverage
Dhaka	18	BRAC, Dakkinkhan	BRAC	Dhaka (Peri-urban)	20
				(Urban)	59
	19	KMSS Pallabi Extention	UPHCSDP	Dhaka-urban, UPHCSDP area	16
	20	CWFD Tejgaon	NHSDP	Dhaka-urban, NHSDP area	6
	21	TB Control & Training Institute	GOB	Dhaka-urban	9
	22	CDC Shyamoli	GOB	Dhaka-urban	
	23	CDC Munshiganj	BRAC	Munshiganj	11
				Narayanganj	16
	24	CDC Mymensingh	BRAC	Gazipur	17
	24	CDC Mymensingh	BRAC	Manikganj	11
	25	DF Mymensingh	DF	Kishoregarnj	20
	26	DF Faridpur	DF	Faridpur	12
				Gopalganj	8
				Madaripur	6
				Rajbari	6
				Shariatpur	7
	29	CDC Brahmanbaria	BRAC	Narsinghdi	12
	27	DF Tangail	DF	Tangail	20
Mymensingh	27	DF Tangail	DF	Jamalpur	15
	24	CDC Mymensingh	BRAC	Mymensingh (urban)	12
	25	DF Mymensingh	DF	Mymensingh (rural)	15
	28	DF Netrakona	DF	Netrakona	12
	24	CDC Mymensingh	BRAC	Sherpur	10
Chattogram	29	CDC Brahmanbaria	BRAC	Brahmanbaria	16
	30	CDC Cumilla	BRAC	Cumilla	34
	31	CDC Cox's Bazar	BRAC	Cox's Bazar	18
	39	CS Office Bandarban	BRAC	Bandarban	25
	32	CDC Chandpur	BRAC	Chandpur	17
				Lakahmipur	12
	33	CDC Chattogram	BRAC	Chattogram-rural	34
				Chattogram-urban	27
	34	CDC Noakhali	BRAC	Feni	11
				Noakhali	20
	35	CDC Rangamati	BRAC	Rangamati	42
	37	CDC Khagrachari	BRAC	Khagrachari	28
Total					**1136**

Annex 5: TB diagnostic and treatment services affiliated to NTP in metropolitan cities.

SL	Ward No.	Agency	Address	Service facility	Remark
Dhaka Metropolitan Area					
1.	1 (North)	1 (North)	Sector No. 4, House No. 241, Jalal Uddin Ahmed Saroni Road, Jamtola,(New Rail Line) Uttara, Dhaka.	Microscopy & DOT	
2.	2 (North)	2 (North)	Surjer Hashi Clinic, House# 1, Road# 9, Block D, Section-12, Pallabi, Mobile: 01190-697342	Microscopy & DOT	
3.	4 (North)	4 (North)	House 324, Avenue 2, Block-A, Mirpur-13, Dhaka. Mobile: 01764-834751	Microscopy & DOT	
4.	5 (North)	5 (North)	House 1, Road 8, Block- A, Nannu Market, Mirpur 11, Dhaka. Mobile: 01737-899661	Microscopy & DOT	
5.	5 (North)	5 (North)	Avenue 2, House 35,Section 11, Block A, Mirpur, Dhaka 1221 Mobile:01711591236	Microscopy & DOT	
6.	6 (North)	6 (North)	House No. 27, Extended Pallabi G, Sare Egaro Mirpur, Dhaka	Microscopy & DOT	
7.	8 (North)	8 (North)	House No. 32, Road No. 6, Mirpur-1, Dhaka	Microscopy & DOT	
8.	9 (North)	9 (North)	House # 18, Shotto diabari, ward #-09, Darus salam, Dhaka Mobile No-01921-563881	DOT	
9.	9 (North)	9 (North)	6/B/A, 2nd Colony, Majar Road,Sector 1, Mirpur-1, Dhaka. Mobile: 01622-988827	Microscopy & DOT	
10.	10 (North)	10 (North)	House No 2/8/A/2 Second Colony Mazar Road, Horirampur Bazar(South Community Centre) Mirpur, Dhaka , Mobile No:- 01646336218	DOT	
11.	11 (North)	11 (North)	House No. 490, Dakkhin Paikpara (Near New Bazar), Dhaka. Mobile: 01780-302956	Microscopy & DOT	
12.	12 & 13 (North)	12 & 13 (North)	House #-186, Poshim Monipur, Mirpur Model Thana, Dhaka Urban, Dhaka, Mobile- 01920-052150	Microscopy & DOT	
13.	14,28 (North)	14,28 (North)	781/3, Pashim Shaorapara, Mirpur Model Thana, Dhaka-1216. Mobile- 01745-087804	Microscopy & DOT	
14.	15 (North)	15 (North)	Surjer Hashi Clinic, 640 Manikdi Bazar, Dhaka Cantonment, Mobile:01715-283036	Microscopy & DOT	
15.	15 (North)	15 (North)	203/2 Old Kachukhet, Cantonment, Dhaka. Mobile: 01757-274053	Microscopy & DOT	
16.	16 (North)	16 (North)	House# 422, Near Nagar Shasthya Kandra, Ibrahimpur, Dhaka, Mobile: 01719-852327	Microscopy & DOT	
17.	17 (North)	17 (North)	House No-K 147/3 A,Khilkhet, Noyanagar,Dhaka.Mobile No:,01732433573	Microscopy & DOT	
18.	17 & 40 (North)	17 & 40 (North)	150/2 Kuril Bisho Road, Kazi Bari Mosque Lane, Jagonnathpur, Dhaka. Mobile: 01731-424811	Microscopy & DOT	
19.	18 (North)	18 (North)	Surjer Hashi Clinic, Ga-6, Shahjadpur, Gulshan, Dhaka-1212. Mobile: 01719-052262	Microscopy & DOT	
20.	20 (North)	20 (North)	House# G-188/3, Mohakhali School Road, (Wireless Gate), Gulshan, Dhaka-1212	Microscopy & DOT	
21.	21 & 22 (North) Partially	21 & 22 (North) Partially	House# 5, Road# 1, Merul Badda, Dhaka. Mobile: 01721-537046	Microscopy & DOT	
22.	22 (North) Partially	22 (North) Partially	258 DIT WAPDA, Poschim Rampura, Rampura, Dhaka. Mobile: 01646-935456	DOT	
23.	24 (North)	24 (North)	23/4F, Abir Manzil, Konipara Happy Homes, Tejgaon, Dhaka-1208	Microscopy & DOT	
24.	25 (North)	25 (North)	House# 466/1, Shaheenbagh, Nakhalpara, Tejgaon, Dhaka-1215, Mobile: 01745-531778	DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
25.	26,27 (North)	26,27 (North)	Pashim Raja Bazar, House # 60/4, Dhaka- 1215, Mobile: 01735-017663	Microscopy & DOT	
26.	29 & 30 (North)	29 & 30 (North)	House # -01, Roar #-297/E, Baitul Aman Housing Limited, Adabor , Dhaka -1207 Mobile: 01721537046	Microscopy & DOT	
27.	31 (North)	31 (North)	House# W/3, Noorjahan Road, (Behind of Mohammadpur Girls' High School), Mohammadpur, Dhaka-1207	Microscopy & DOT	
28.	34 (North)	34 (North)	97/5-A, North Jafarabad, Pulpar, Mohammadpur, Dhaka-1207	Microscopy & DOT	
29.	35 (North)	35 (North)	House# 177, Noyatola (Opposite site of RAB Camp), Maghbazar, Dhaka-1217	Microscopy & DOT	
30.	21, 40, 41 & 42 (North)	21, 40, 41 & 42 (North)	House # Cha 89/2/1, Hasenuddin Road (Puraton Thana Road), North Badda, Dhaka. Mobile: 01718-975488	Microscopy & DOT	
31.	45 & 46 (North)	45 & 46 (North)	156/A, Atipara Bazar, Uttarkhan, Dhaka. Mobile: 01924-463628	Microscopy & DOT	
32.	47, 48 & 49 (North)	47, 48 & 49 (North)	Near DakkhinKhan Bazaar, DakkhinKhan, Uttara, Dhaka. Mobile: 01797-909366	Microscopy & DOT	
33.	54 (North)	54 (North)	House# 6, Dhour main Road, Kamarpara, Hanif Ali Mor,Batulia, Turag, Uttara, Dhaka. Mobile: 01731-415667	Microscopy & DOT	
34.	1 (South) & 23 (North)	1 (South) & 23 (North)	House# 331,Road # 13, Tilpapara, Khilgaon, Dhaka-1219. Mobile:01821-935963	Microscopy & DOT	
35.	2 & 3 (South)	2 & 3 (South)	House No: 400, Dokkin Goran, (Near Taz Pharmachy), Khilgoan, Dhaka-1219. Mobile: o1775-970242	Microscopy & DOT	
36.	4 & 5 (South)	4 & 5 (South)	House #7, Dakkhin Basabo, (Beside of Belal Masjid), Dhaka-1214, Mobile: 01718-646232	Microscopy & DOT	
37.	6, 71 & 72 (South)	6, 71 & 72 (South)	House#111/B, Uttar Mugdapara, Mugda, Dhaka-1214. Mobile: 01711-731947	Microscopy & DOT	
38.	7 & 49 (South)	7 & 49 (South)	House 12, South side of Dholpur Community Centre, Dholpur, Dhaka. Mobile: 01712-407724	Microscopy & DOT	
39.	8 (South)	8 (South)	House# 171, Dokhin Kamalapur, Motijhil, Dhaka-1217. Mobile: 01746-067210	DOT	
40.	11 & 13 (South)	11 & 13 (South)	House# 486/1, North Shahjahanpur, Dhaka-1217. Mobile: 01751-457863	Microscopy & DOT	
41.	14 (South)	14 (South)	Surjer Hashi Clinic, 113 Gozmohal, Opposite of Hazaribagh Thana, Rayerbazar. Dhaka-1207. Tel: 8611886, Mobile: 01731-909951	Microscopy & DOT	
42.	14 & 33 (South)	14 & 33 (South)	68/Kha, Zigatola, Near Baitul Moharam Mosjid, Dhanmondi, Dhaka Mobile: 01719574457.	Microscopy & DOT	
43.	16 & 17 (South)	16 & 17 (South)	House 183, Green Road, Dhaka-1207. Mobile: 01738814529	Microscopy & DOT	
44.	19 (South)	19 (South)	House#72/Kha, Circular Road, Siddeswari, Dhaka. Mobile: 01747-024173	Microscopy & DOT	
45.	20 (South)	20 (South)	House# 9, Block# C, Main Road South Banosri, Madartek, Dhaka. Mobile: 01721-095452	Microscopy & DOT	
46.	22 (South)	22 (South)	36 Badda Nagar (Near Hazaribagh Park), Bhagolpur, Dhaka. Mobile: 01750955846	Microscopy & DOT	
47.	22 & 23 (South)	22 & 23 (South)	House# 48, Nilambar Saha Road (Beside Saleh School), Hazaribagh, Dhaka-1205, Mobile: 01712-147258	Microscopy & DOT	
48.	24 (South)	24 (South)	House# 42/1,KA,R N D Road, Shahidnagor Boubazar, (Killar Moor), Dhaka, Mobile: 01734-860344	Microscopy & DOT	
49.	25 & 26 (South)	25 & 26 (South)	Surjer Hashi Clinic, 36, Sheikh Shaheb Bazar, Lalbagh Road, Dhaka-1205. Tel: 8618533	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
50.	27, 28 & 29 (South)	27, 28 & 29 (South)	House# 38/3b/2 Alierghat (Lal Khan Bari), Islambagh, Dhaka-1211	Microscopy & DOT	
51.	30 (South)	30 (South)	47, Nelgola, Immamganj, Nagar Shasthya Kandra, Chalk Bazar, Dhaka	Microscopy	
52.	33 (South)	33 (South)	90/1, Aga Sadaque Road, Nazira Bazar, Dhaka.	DOT	Coverage ward# 30, 31, 32, 33 & 34
53.	33 (South)	33 (South)	26 No. Majed Sorder Road, Nagar Shasthya Kendra (Old Pakisthan Maath) Aga Sadaque Road, Bongshal, Dhaka.	Microscopy	
54.	35 (South)	35 (South)	56, Goal Nagor (Bandar Goli), English Road, Bongshal, Dhaka	DOT	Coverage ward# 35, 36, 37 & 43
55.	38 & 41 (South)	38 & 41 (South)	Surjer Hashi Clinic, 72, BCC Road, JoyKali Mandir, Wari, Dhaka-1203.	Microscopy & DOT	
56.	39 (South)	39 (South)	House# 63/3,B/1, K M Das Lane, Tikatuli, Dhaka-1203, Mobile: 01744-761631	DOT	
57.	40 (South)	40 (South)	Surjer Hashi Clinic, 45, Doyagonj More, Doyagonj, Dhaka-1203. Mobile: 01556-305871	Microscopy & DOT	
58.	42 & 44 (South)	42 & 44 (South)	Surjer Hashi Clinic, 33, Begumgonj Lane, Begumgonj, Dhaka-1203. Mobile: 01913-399545	Microscopy & DOT	
59.	43 (South)	43 (South)	Farashganj, Lalkuthi truc stand, Nager Shasthya Kandra, Farashganj, Dhaka	Microscopy	
60.	45 (South)	45 (South)	Surjer Hashi Clinic , 114/A, Distillery Road (Dhupkhola Math), Gandaria, Dhaka-1204. Tel: 7448272	Microscopy & DOT	
61.	46 (South)	46 (South)	16/D/03, Dino Nath Sen Lane (Near Sadhana Owshadhaloy), Gandaria, Sutrapur, Dhaka. Mobile: 01769-931890	Microscopy & DOT	
62.	48(South	48(South	69/1/F, Bibir Bagicha, 3 no Gate, North Jatrabari, Dhaka. Mobile:01744-462499	Microscopy & DOT	
63.	49 (South)	49 (South)	Saidabad Clinic, Saidabad, Ph: 7546402	Microscopy & DOT	
64.	50 & 51 (South)	50 & 51 (South)	255/B, Abbasuddin Road, South Jatrabari, Dhaka. Mobile: 01746-723395	Microscopy & DOT	
65.	52 & 54 (South)	52 & 54 (South)	House#342/5, Jurain Mazar gate, London school goli, Shampur, Dhaka. Mobile: 01734-645728	Microscopy & DOT	
66.	53 (South)	53 (South)	Abdul Majid Sarkar Nagar Shasthya Kendra, Commissioner Road (College Road) Muradpur (East Jurain), Dhaka. Tel: 7440293	Microscopy & DOT	
67.	55 & 56 (South)	55 & 56 (South)	BRAC Office, Khalipa Ghat Kazi bari Goli. Rasulpur, Dhaka. Mobile: 01768734516	Microscopy & DOT	
68.	56 & 57 (South)	56 & 57 (South)	House # 77, Sangbadik Goli, Ashrafabad (Near thana), Kamrangirchor, Dhaka. Mobile: 01718-908531	Microscopy & DOT	
69.	58 & 61 (South)	58 & 61 (South)	449 Shohid Zakir Hossain Lane, Muradpur (Near Muradpur Bus Stand), Shampur, Dhaka. Mobile: 01769-931449	Microscopy & DOT	
70.	63,64,65, 66,67&68 (South)	63,64,65, 66,67&68 (South)	Paity Bottala,(BRAC Nursery) Demra Road, Matuail, Dhaka. Mobile: 01728-943216	Microscopy & DOT	
71.	DOTS Corner	DOTS Corner	Shaheed Monsur Ali Medical College Hospital, Sector #11, Road # 10, Uttara,Dhaka (TB DOTS Corner,Room#16,Outdoor), Mobile:01705-616547	Microscopy & DOT	
72.	DOTS Corner	DOTS Corner	Women Medical College and Hospital, Sector-01, Road # 8,9 Plot-04, Uttara, Dhaka (TB DOTS Corner, Room#132, Gynae Outdoor), Mobile:01687-637225	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
73.	DOTS Corner	DOTS Corner	East West Medical College Hospital, Taltola, Ashulia Road, Turag, Dhaka, (Room# 26, Outdoor), Mobile: 01920-811205	Microscopy & DOT	
74.	DOTS Corner	DOTS Corner	Shaheed Sharowardi Hospital, Dhaka (TB DOTS Corner, Room-20, Block -2, Outdoor), Mobile: 01858-772435	Microscopy & DOT	
75.	DOTS Corner	DOTS Corner	Shishu Hospital, Dhaka, Mobile: 01912-152032	Microscopy & DOT	
76.	DOTS Corner	DOTS Corner	Bangladesh Medical College Hospital, Dhanmondi, Dhaka-1209. (TB DOTS Corner, Room# 118, Outdoor), Mobile: 01947-981273	DOT	
77.	DOTS Corner	DOTS Corner	Dhaka Medical College Hospital, Dhaka (TB DOTS Corner, Room# 10, Outdoor), Mobile: 01724-010220	Microscopy & DOT	
78.	DOTS Corner	DOTS Corner	Bangabandhu Sheikh Mujib Medical University, Shahbagh, Dhaka-1100. (3No Gate, front of cabin Block), Mobile: 01913-797874	Microscopy & DOT	
79.	DOTS Corner	DOTS Corner	BIRDEM Hospital, Shahbagh, Dhaka-1000. (TB DOTS Corner, Near Room# 127, Medicine Outdoor), Mobile: 01790-325499	Microscopy & DOT	
80.	DOTS Corner	DOTS Corner	Sir Salimullah Medical College Hospital, Dhaka. (TB DOTS Corner, Room# 115, Medicine Outdoor), Mobile: 01916-601326	Microscopy & DOT	
81.	DOTS Corner	DOTS Corner	Dhaka National Medical College Hospital, 53/2 Janson Road, Dhaka. (TB DOTS Corner, Room# 133, Outdoor), Mobile: 01725-753257	Microscopy & DOT	
82.	DOTS corner	DOTS corner	Institute of Child and Maternal Health, (ICMH), Matuail, Dhaka. (TB DOTS Corner, Near Record Room, Outdoor), Mobile: 01675-296547	Microscopy & DOT	
83.	DOTS corner	DOTS corner	Kurmitola General Hospital, Dhaka Cantonment, Room # 327, 3rd Floor (Out Door), Mobile: 01720-275143	Microscopy & DOT	
84.	DOTS corner	DOTS corner	Holy Family Red Crescent Medical College Hospital, Mogbazar, Room # 24, 1st Floor (Out Door), Mobile: 01718-109501	DOT	
85.	DOTS corner	DOTS corner	Uttara Adhunik Medical College Hospital, House # 34, Road # 4, Scetor # 9, Sonargaon Janapath, Uttara Model Town, Uttara, Mobile: 01737-214995	Microscopy & DOT	
86.	DOTS corner	DOTS corner	Mugda General Hospital, Mugda, Dhaka, Mobile: 01747-238439	Microscopy & DOT	
87.	DOTS corner	DOTS corner	Sarkari Karmachari Hospital, Fulbaria, Dhaka, Mobile: 01736-718245	Microscopy & DOT	
88.	DOTS Corner	DOTS Corner	NIDCH, TB Gate, Mohakhali	Microscopy & DOT	
89.	DOTS Corner	DOTS Corner	Shyamoli 250 bed TB Hospital, Shyamoli, Ph.-9111892	Microscopy & DOT	
90.	DOTS Corner	DOTS Corner	Kuwait Bangladesh Friendship Govt. Hospital, Sector # 6, Uttara, Dhaka, (Room # 206 & 217), Mobile: 01818-765930	Microscopy & DOT	
91.	DOTS Corner	DOTS Corner	DOTS Corner, Isolation Ward, Medical Unit, Combined Military Hospital, Cantonment	Microscopy & DOT	
92.	DOTS Corner	DOTS Corner	Dhaka Central Jail Hospital, Nazimuddin Road	Microscopy & DOT	
93.	DOTS Corner	DOTS Corner	DOTS Corner, Police Hospital, Razarbagh Police Line	Microscopy & DOT	
94.	DCC (North)	DCC (North)	House # 13/A, Road # 136, Gulshan-1, Dhaka- 1212, Tel: 55044811-13.	Microscopy & DOT	
95.	DOTS Corner	DOTS Corner	DOTS Corner, Dhaka Community Hospital, 190/1, Baro Moghbazar, Wireless Rail Gate, Ph.-9351190-1, 8314887	Microscopy & DOT	
96.	DCC (South)	DCC (South)	30/B, Malibagh, Chowdhurypara, Dhaka, Tel: 8311124	Microscopy & DOT	
97.	DCC (North)	DCC (North)	Plot # 5, Road # 5, Milkvita Road, Mirpur-7, Dhaka, Mobile: 01712-677667	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
98.	DCC (North)	DCC (North)	Road # 6, Block # B, House # 5 (2nd floor), Nabodoy Housing Society, Mohammadpur, Dhaka-1200, Tel: 9120832, Mobile: 01716-159076	Microscopy & DOT	
99.	DCC (North)	DCC (North)	Saru Kunja, House # 64, Block # G, Niketan Eastern Housing Ltd., Gulshan-1, Dhaka, Tel: 9858549	Microscopy & DOT	
100.	DCC (North)	DCC (North)	House # 16/A, Road # 16, Sector # 4, Uttara, Dhaka, Tel: 8950208	Microscopy & DOT	
101.	DCC (North)	DCC (North)	68 Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka-1212. Mobile: 01779-100100	GeneXpert & DOT	
102.	DCC (South)	DCC (South)	House#11/A, Golapbagh Bishwa Road (near to Golgotha baptist church & Golapbagh CNG station), Dhaka-1213. Mobile: 01779-700700	GeneXpert & DOT	
103.	DCC (South)	DCC (South)	House# 15, Road# 07, Dhanmondi (near to orchard point centre), Dhaka-1205. Mobile: 01779-600600	GeneXpert & DOT	
104.	DCC (South)	DCC (South)	1 no. West Hazipara, Rampura, DIT Road, P.O: Khilgaon, Dhaka-1219 (Opposite to Appex showroom). Mobile: 01766-667628	GeneXpert & DOT	
105.	DCC (North)	DCC (North)	House# 31 (1st Floor), Sector# 11, Gareeb-e-Nawaz Avenue, Uttara, Dhaka-1230. (opposite to Milestone College main campus) Mobile: 01766-667629	GeneXpert & DOT	
106.	DCC (North)	DCC (North)	House# 03, Main Road, Bloack# A, Road# 11 Pallabi, Mirpur, Dhaka-1216. Mobile: 01766-667617	GeneXpert	
107.	DCC (South)	DCC (South)	32 Lalmohon Shah Road, Dholaikhal Mor, Old Dhaka-1203. Mobile: 0176 6-667618	GeneXpert	
108.	DCC (South)	DCC (South)	Dhaka Mohanagar General Hospital, Nayabazar, Dhaka-1100, Tel: 7390860	Microscopy & DOT	
109.	DCC (North)	DCC (North)	TB Diagnostic Center: House no. 4/B/B, Mazar Road, Daru salam, Mirpur-1, Dhaka. Mobile: 01313-048418	GeneXpert	
110.	DCC (North)	DCC (North)	TB Diagnostic Center: House no.18/6, Mohammadia housing, Modammadpur, Dhaka. Mobile: 01313-048417	GeneXpert	
111.	DCC (North)	DCC (North)	TB Diagnostic Center: House no. 2502, Madani Avinue, 100 fit road, Vatra, Gulshan, Dhaka. Mobile: 01313-048407	GeneXpert	
112.	DCC (South)	DCC (South)	TB Diagnostic Center: Ward no. 9, North Rayerbag, Gas Road, Dania, Jattrabari, Dhaka. Mobile: 01313-048405	GeneXpert	
113.	DCC (South)	DCC (South)	TB Diagnostic Center: Nazir Shoping mol, 69/R.N.D road, Kella more, Lalbag, Dhaka. Mobile: 01313-048416	GeneXpert	
114.	DCC (South)	DCC (South)	TB Diagnostic Center: House no.272/1/A, Khilgaon Chourasta (Comilla hotel more), Khilgaon, Dhaka. Mobile: 01313-048406	GeneXpert	
Chittagong Metropolitan Area					
1	1	Image	Kashem Mansion (1st floor) Hathazari Road, Aman Bazar, South Pahartali, Phone # 031-2581799	DOT	
2	2	Image	16 Baizid Bostami R/A, Jalalabad, Phone # 031-681906, 2581726	Microscopy & DOT	
3	2	GoB	Government Urban Dispensary, Shersha Colony, Jalalabad	DOT	
4	3	CCC	City Corporation dispensary, Panchlaish	DOT	
5	3	GoB	Government Urban Dispensary, Rowfabad, Panchlaish	DOT	
6	4	GoB	Government Urban Dispensary, Gausul Azam, Chandgaon	DOT	
7	4	Image	Marium Vila, Mouluvi Pukur Par, Chandgaon, Phone # 031-672552	Microscopy & DOT	
8	5	BRAC	DOTS Centre, Kalurghat I/A, Hazi Dulamiah Road, Nazumiah Hat, Mohara	DOT	
9	8	BRAC	DOTS Corner, Chittagong Medical College Hospital	Microscopy & DOT	
10	8	NATAB	NATAB Bhaban, 62 Katalganj, Panchlaish	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
11	9	GoB	Government Urban Dispensary, North Pahartoli , Colonelhat	DOT	
12	9	GoB	Government Urban Dispensary, North Pahartoli, Ferozshah	DOT	
13	9	Nishkrity	Rafique Chowdhury Bhaban, New Monsurabad, Pahartoli	Microscopy & DOT	
14	10	BRAC	DOTS Centre, Fouzdarhat I/A	DOT	
15	10	Image	Bashar Champa Bhaban, Hazrat AmanUllah road, North Kattali, Pahartali, Phone # 031-2770943	DOT	
16	11	GoB	Government Urban Dispensary, Halishar, South Kattali	DOT	
17	11	CCC	Chadu chowdhury Primary Health Care Centre, Chadu Chowdhury Road, Custom Academy, South Kattali	DOT	
18	12	CCC	City Corporation dispensary (CCD), Saraipara	DOT	
19	13	MAMATA	380/A, Flora Pass Road, Ambagan, Pahartoli, Chittagong, Mobile: 01711-903395	DOT	
20	13	Image	Saleh Mansion, 22/A Zakir hossain Road, East Nasirabad, Phone # 031-615125.	Microscopy & DOT	
21	14	CCC	City Corporation dispensary (CCD), Lalkhan Bazar	DOT	
22	14	MAMATA	Nagar Matree Shadan, Salam Building, 61, Chandmari Road, Lalkhan Bazar, Chittagong, Phone: 031-625804	Microscopy & DOT	
23	14	BRAC	DOTS Corner, Railway Hospital	Microscopy & DOT	
24	15	MAMATA	27 Betari Goli, Bagmoniram, Chittagong, Mobile: 01711-903395	DOT	
25	16	CCC	City Corporation dispensary (CCD), Ward Commissioner's Office, Chawkbazar	DOT	
26	17	Nishkrity	Rahman Manson, Rahattarpool, West Bakalia	Microscopy & DOT	
27	17	GoB	Government Urban Dispensary, West Bakalia, Panchlaish	DOT	
28	18	CCC	City Corporation dispensary, Ward Commissioner's Office, Kala Meah Bazar, East Bakalia	DOT	
29	19	CCC	City Corporation dispensary, Nurul Islam Maternity Hospital, South Bakalia	DOT	
30	20	CCC	City Corporation dispensary, Ward Commissioner's Office, Dewan Bazar	DOT	
31	21	Nishkrity	129, Jamal Khan by lane (north side of DC Hill)	Microscopy & DOT	
32	22	MAMATA	Amin Mansion, Plot No-582/605, Batali Road, Enayet Bazar, Chittagong, Mobile: 01817-757939	DOT	
33	23	CCC	City Corporation dispensary, Ward Commissioner's Office, Dewanhat, Uttar Pathantoly	DOT	
34	24	Nishkrity	217, North Agrabad (Mollapara more), Rongipara	DOT	
35	24	MAMATA	Panwala Para, Haddi Companir Moor, North Agrabad, Chittagong, Mobile: 01913-618282	DOT	
36	26	GoB	Government Urban Dispensary, Agrabad (Masjid Colony), North Halishahar	DOT	
37	27	CCC	City Corporation Dispensary, South Agrabad (Doublemooring)	DOT	
38	27	GoB	Skin & V.D. Hospital, South Agrabad	Microscopy & DOT	
39	27	BRAC	DOTS Corner, Ma O Shishu General Hospital	Microscopy & DOT	
40	28	BRAC	DOTS Centre, Ward Commissioner's Office, Pathantoly	DOT	
41	29	CCC	City Corporation dispensary, Ward Commissioner's Office, West Madarbari	Microscopy & DOT	
42	29	MAMATA	81, Mogoltoli By Lane # 1, West Madarbari, Chittagong, Phone # 031-2514481	Microscopy & DOT	
43	30	CCC	City Corporation dispensary, Younus mia, Ward Commissioner's Office, East Madarbari	DOT	
44	31	BRAC	Khelaghor Ashor, Alkaran	DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
45	32	GoB	Chest Disease Clinic, Andarkilla	Microscopy & DOT	
46	33	CCC	City Corporation dispensary, Ward Commissioner's Office, Firingee Bazar	DOT	
47	33	Nishkrity	62/63, Poet Kazi Nazrul Islam Road, Firingee Bazar, Kotowali	DOT	
48	34	BRAC	DOTS Centre, Patharghata	DOT	
49	35	BRAC	DOTS Centre, Jail Hospital, Government Urban Dispensary, Baxirhat	Microscopy & DOT	
50	37	Nishkrity	Borapole, North Middle Halishahar	DOT	
51	40	BRAC	DOTS Corner, CEPZ Hospital, South Halishahar	Microscopy & DOT	
52	39	BRAC	DOTS Corner, Port Hospital, South Halishahar	Microscopy & DOT	
53	39	GoB	Government Urban Dispensary, Seamen Hostel, South Halishahar	DOT	
54	39	MAMATA	Mamata Clinic, Baitush Sharaf Bhaban, Taltala, Bandartila, South Halishahar,Chittagong, Phone: 031-740476, Mobile: 01920-470753	Microscopy & DOT	
55	40	Youngone Ltd.	Youngone Ltd. Hospital, CEPZ, North Patenga	Microscopy & DOT	
56		BRAC	DOTS Corner, Chest Disease Hospital, Fauzderhat	Microscopy & DOT	
57		BRAC	DOTS Centre, Karnaphuli I/A	DOT	
58		GoB	DOTS Corner, CMH Cantonment	Microscopy & DOT	
59		GoB	DOTS Corner, CMH BNS Patenga	Microscopy & DOT	
60		GoB	Government urban Dispensary, Marine Academy	DOT	
61		BRAC	DOTS Corner, KEPZ Hospital	Microscopy & DOT	
62		BGMEA	BGMEA Hospital, Saltgola Rail Crossing, Seamens Hostel Gate, South Halishahar, Bandar, Chittagong, Tel: 031-740814, Mobile: 01813-277530	Microscopy & DOT	
63		BRAC	DOTS Corner, Chattagram International Medical College Hospital	Microscopy & DOT	
64		BRAC	DOTS Corner, Bangabandhu Memorial Hospital (USTC)	Microscopy & DOT	
65		icddr,b	1306, OR Nizam Road, Golpahar Mor, P.O: Chittagong Medical College, Chittagong-4203. (opposite to Shwapno super store) Mobile: 01766 667630	GeneXpert & DOT	
66		BRAC	TB Diagnostic Center: Holding no-1161/D/1739, Jahan Tower, Bakulia, Chittagong. Mobile: 01313-048432	GeneXpert	
67		BRAC	TB Diagnostic Center: House no.126, Bismilla Tower, Oxizen more, Chittagong. Mobile: 01313-048435	GeneXpert	
68		BRAC	TB Diagnostic Center: House no. 2950, A.M. Tower, South Halisahar, Bandar, Chittagong. Mobile: 01920-141296	GeneXpert	
Khulna Metropolitan Area					
1	01	PKS	Nagarshasto Kendro , Kalibaribazar, Maheshwarpasha , Khulna	DOT	
2	02	PKS	Nagarshasto Kendro, TB Hospital Road,Fulbarigate,Mirerdanga., Khulna	DOT	
3	03	PIME Sisters	PIME Sisters DALIT. 37/1, Kedarnath Road, Ralligate, Maheshwarpasha, Daulatpur. Khulna	DOT	
4	04	PKS	Nagarshasto Kendro , Hospital Road, Deyana Purbopara, Daulatpur., Khulna	DOT	
5	05	PIME Sisters	Muhsin Upa Sasthya Kendra. Daulatpur Bazar. Daulatpur, Khulna.	DOT	
6	06	PKS	125 Pabla Sabuj Sangho Cross Road Daulatpur,Khulna	Microscopy & DOT	
7	12	PKS	103, Central Block, Eidgah road, Khalishpur, Khulna	DOT	
8	7,8,10,11	PIME Sisters	PIME Sisters. Lal Hospital. Khalishpur. Khulna	DOT	
9	7,8,9,10. 11,13,14,15	KMSS, KCC	Fire Service Road, (Near 11 No. Ward Counselor's office), Khalishpur,Khulna ,Khulna City Corporation, Khulna	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
10	9,14	PIME Sisters	Damien Clinic, PIME Sisters.9/11, Daspara Road, Boyra. Khulna. Tel. # 761782	Microscopy & DOT	
11	13,15	PIME Sisters	PIME Sisters. Missionaries of Charity. Duttapara, Khalishpur, Khulna.	DOT	
12	16	PIME Sisters	DOTS Corner Dibetic Hospital, Khulna.	DOT	
13	17	BRAC	BRAC DOTS Corner. Khulna Medical College Hospital.	Microscopy & DOT	
14	17	GoB	Chest Clinic , Lower Jessore Road, Khulna,Te # 1731105	Microscopy & DOT	
15	18,25,26	PIME Sisters	Nazirghat urban clinic, Borobari, Khulna	DOT	Closed
16	19	PKS	Nagarshasto Kendro, Islamabad (Poipara) Community Centre, Near of Eidgah, Khulna	Microscopy & DOT	
17	20	PKS	Nagarshasto Kendro Shaikhpara Bazar, Shaikhpara, Khulna	DOT	
18	21	PIME Sisters	Khulna Prison.	DOT	
19	21,23	PIME Sisters	Sadar Hospital DOT Corner, Khulna	DOT	
20	22	PIME Sisters	Blue Sister DOTS Center, Tootpara zoracall bazar	DOT	
21	24	PKS	Nagarshasto Kendro, Road #.21, Dighirpar, Nirala R/A., , Khulna	DOT	
22	31	PIME Sisters	Khanjahan Ali Datobo Health Center, Lobonchara, Khulna	DOT	
23	22, 29	PKS	47, South Central Road, Khulna.	Microscopy & DOT	
24	30	PIME Sisters	PIME Sisters. Taltola Hospital, Tootpara, Khulna.	DOT	
25	DOTS Corner	BRAC	BRAC DOTS Corner. Ad-din Akij Medical College, Boikali,Dhaka Highway, Khulna	Microscopy & DOT	
26	Pre Urban	BRAC	DOTS Center for Industrial Center. Khulna. (Located at BRAC office at Fulbarigate area)	Microscopy & DOT	
27	27,28	PKS	Nagarshasto Kendro. Islampur road, Tarererpukur, Khulna	Microscopy & DOT	
28		BRAC	TB Diagnostic Center: 18/B, Majid Avenue, (Opposite of Gazi Medical College Hospital), Sonadanga, Khulna. Mobile: 01313-048386	GeneXpert	
Rajshahi Metropolitan Area					
1	4,5,6,7, 8, 9, 10, 11	Tilottama	Tilottama Bulunpur, Rajpara, Rajshahi	Microscopy & DOT	
2	6	GoB	Rajshahi Chest Disease Hospital, Laxmipur	Microscopy & DOT	
3	7	Damien Foundation	Rajshahi Jail	DOT	
4	9	GoB	Chest Disease Clinic, Hossenigonj	Microscopy & DOT	
5	10	Damien Foundation	DOTS Corner, Rajshahi Medical College Hospital, Laxmipur	Microscopy & DOT	
6	1, 2, 3, 12, 13, 14, 15, 18, 19, 20	RIC, RCC	Jahan Ara Monjil, House No -355, Dorikhorbona, Behind of Barnalir More (Near passport office), Rajshahi,	Microscopy & DOT	
7	16,17	Tilottama	Tilottama, North Naodapara, Bypass More,Naodapara,Rajshahi, Organization's own building	Microscopy & DOT	
8	21, 22, 23, 24,25, 26, 27,28,29, 30	BRAC	House No: 109/1, Shakopara, (North side of Grave), Baze Kazla,(East side of Shakopara Jame Mosque), Motihar, Rajshahi-6204.	Microscopy & DOT	
		BRAC	TB Diagnostic Center: Holding No: 14, Hetem Khan, Ghoshpara Mor, Rajshahi Medical College Road, Rajshahi. Mobile: 01313-048393	GeneXpert	
Barisal Metropolitan Area					
1	4, 5, 6, 18, 19	GoB	Chest Disease Clinic, Amanatganj	Microscopy & DOT	
2	10,11,12,13,14,15, 16,17,23,24,25,28	BRAC	DOTS Corner, Sher-e-Bangla Medical College Hospital	Microscopy & DOT	
3	9, 20, 21, 22	BRAC	General Hospital	Microscopy & DOT	
4	1, 2, 3, 26, 27, 29, 30	BRAC	DOTS Centre, BRAC Sadar Office, Kashipur	Microscopy & DOT	

SL	Ward No.	Agency	Address	Service facility	Remark
5		BRAC	TB Diagnostic Center: Ruma Nir, Holding No: 205, Torab Ali khan Road, Amtoli Bijoy Bihongo Mor, Near Water Tank, South Alakanda, Barisal. Mobile: 01313-048382	GeneXpert	
Sylhet Metropolitan Area					
1	1, 3, 9, 10, 11, 16	BRAC	DOTS Corner, M.A.G. Osmani Medical College Hospital, Mobile: 01712-788367	Microscopy & DOT	
2	4, 5, 6, 7, 8, 17	BRAC	DOTS Corner, Jalalabad Ragib Rabeya Medical College Hospital, Pathantula, Mobile: 01742-025151	Microscopy & DOT	
3	25, 26, 27	BRAC	DOTS Corner, North-East Medical College Hospital, Sekhghat, Telihaor, Mobile: 01739-725112	Microscopy & DOT	
4	14	BRAC	DOTS Corner, Sylhet Prison, Mobile: 01722-303890	Microscopy & DOT	
5	18, 19, 20, 21	GoB	Chest Disease Clinic, Baluchar, Sahi Eidgah, Mobile: 01710-712673	Microscopy & DOT	
6	15, 22, 23, 24	BRAC	DOTS Corner, BRAC Urban Office, Shahjalal Upashahar, Mobile: 01728-122283	Microscopy & DOT	
7	2, 12, 13	BRAC	DOTS Corner, Park View Medical College Hospital, Telihaor Road, Mobile: 01779-676523	Microscopy & DOT	
8		IOM	Medi-Aid Heart Centre, South Dorgah Gate (Near Minar), Dorgah Mohalla, Sylhet 3100	Microscopy & DOT	
9		icddr,b	Rikabi bazar point, VIP Road, Sylhet-3100 Mobile: 01766 667621	GeneXpert	
10		BRAC	TB Diagnostic Center: Niamah Tower, Vill-Selam, South Surma, Sylhet. Mobile: 01864-408713	GeneXpert	

Annex 6: List of the Sub-Recipients (SR)-24

SL No.	Name	SL No.	Name
1	Damien Foundation	13	KMSS
2	TLMI-B	14	BAPSA
3	RDRS Bangladesh	15	Nari Maitree
4	LAMB	16	UTPS
5	HEED Bangladesh	17	Dhaka Ahsania Mission (DAM)
6	PIME Sisters	18	Resource Integration Centre (RIC)
7	CWFD	19	MAMATA
8	BAMANEH	20	Ashar Alo Society (AAS)
9	Tilottama	21	ICDDR,B
10	IMAGE	22	NATAB
11	Nishkriti	23	BGMEA
12	PKS Khulna	24	BKMEA

National Tuberculosis Control Programme
Bangladesh

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Directorate General of Health Services
Mohakhali, Dhaka-1212