



GeneXpert is a WHO endorsed new technology to diagnose tuberculosis (TB). It is a PCR - based assay which detects TB bacteria (Mycobacterium Tuberculosis) and Rifampicin resistance in sputum specimens within 2 hours. The many features of this system, including sample decontamination, hands-free operation, on-board sample processing, and ultrasensitive hemi-nested PCR, enables to create a low-complexity assay with a sensitivity and specificity of 93% and 99.2% respectively as compared to culture method.

NTP, Bangladesh has introduced Xpert/ MTB-Rif in 2012 and is now available in 38 NTP/ GF supported centres, and icddr,b supported machines are available in 7 sites (List given below).

List of GeneXpert Sites (NTP/ GF supported)

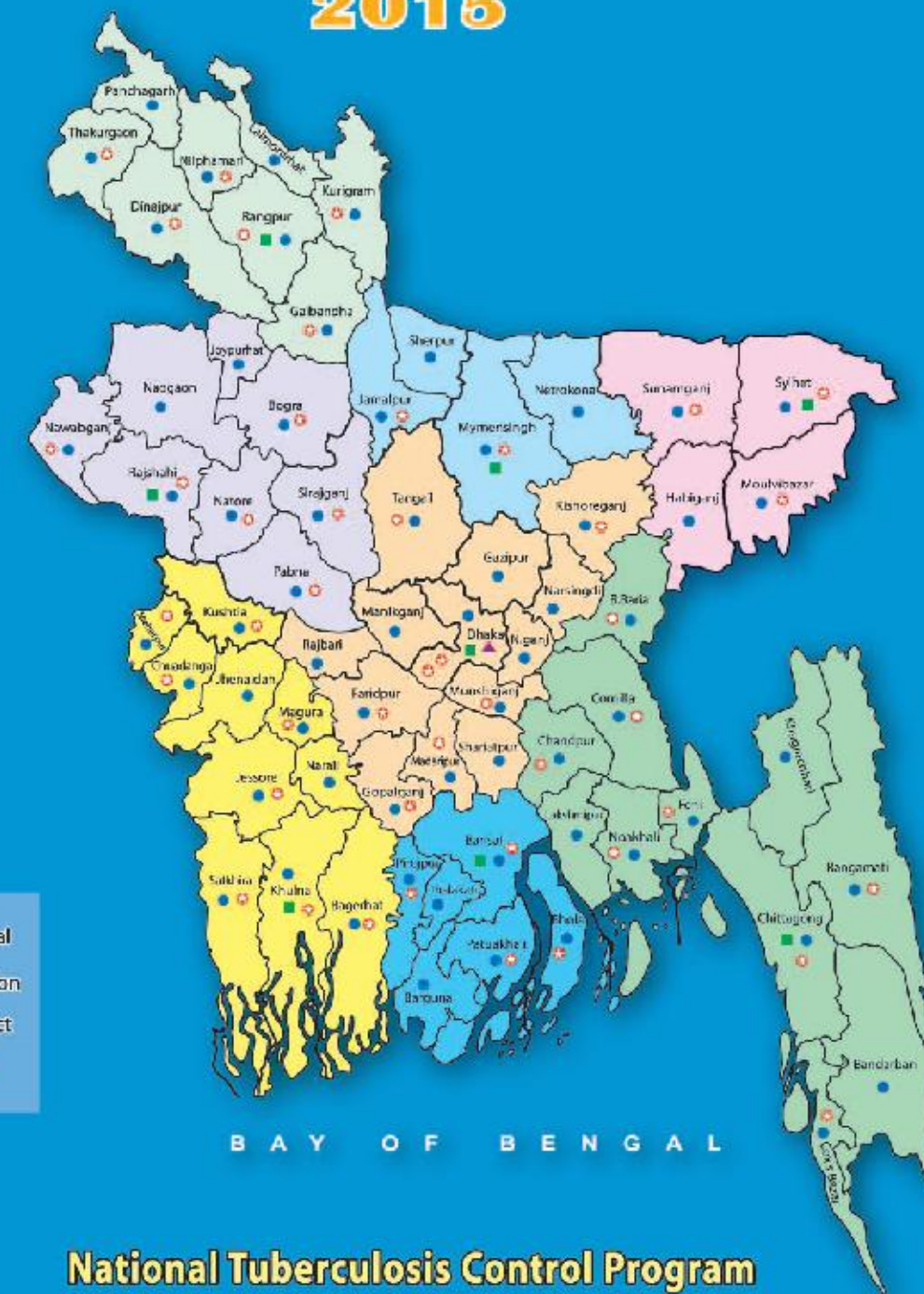
| | | |
|----------------------------|---|---------------------|
| 1. NTRL, Dhaka- 2 machines | 14. CDC Bogra | 26. CDC B. Baria |
| 2. CDC Shyamoli | 15. CDC Comilla | 27. CDC Gaibandha |
| 3. RTRL, Chittagong | 16. CDH Faridpur | 28. CDC Thakurgaon |
| 4. RTRL Rajshahi | 17. CDC Patuakhali | 29. CDC Kurigram |
| 5. CDC Khulna | 18. CDC Rangamati | 30. CDC Kishoreganj |
| 6. CDC Jessore | 19. CDC Chankharpool | 31. CDC Chuadanga |
| 7. CDH Sylhet | 20. CDC Sunamgonj | 32. CDC Gopalganj |
| 8. CDC Barisal | 21. CDC Cox'sBazar | 33. CDC Chandpur |
| 9. Jalchatra, Tangail | 22. Gazipur Sadar Hospital | 34. CDC Satkhira |
| 10. Netrokona TB Lab (DF) | 23. MTLCP Hospital, (Shambhuganj) | 35. CDC Noakhali |
| 11. CDC Pabna | 24. BIRDEM hospital | 36. CDC Bhola |
| 12. CDC Rangpur | 25. Bangabandhu Sheikh Mujib Medical University (BSMMU) | 37. CDC Bandarban |
| 13. CDC Kushtia | | 38. UHC Shremongol |

icddr,b supported sites

| Public facilities | icddr,b facilities |
|-----------------------------------|--|
| 1. BSMMU | 1. Mohakhali TB Screening Centre |
| 2. Sir Salimullah Medical College | 2. Dhanmondi TB Screening Centre |
| 3. CDC Shyamoli- 2 machines | 3. Golapbagh TB Screening Centre |
| | 4. Icdrr,b Mycobacteriology Laboratory |



Tuberculosis Control in Bangladesh Annual Report 2015



National Tuberculosis Control Program
Directorate General of Health Services
Mohakhali, Dhaka




Tuberculosis Control in Bangladesh

**Annual Report
2015**



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



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Abbreviations

| | |
|---------|--|
| ACSM | Advocacy, Communication and Social Mobilization |
| 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 Notification Rate |
| CS | Civil Surgeon |
| 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 |
| HNPS | 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 Diarrhoeal 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 |
| URC | University Research Corporation |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

1. Summary

Tuberculosis (TB) is a major public health problem in Bangladesh since long. 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. The goal of the programme is to reduce morbidity, mortality and transmission of TB until it is no longer a public health problem while its present objective is to achieve universal access to high quality care for all people with TB.

The NTP adopted the DOTS strategy and started its field implementation in November 1993. By 2007 the DOTS services were made available throughout the country including the metropolitan cities. Now the NTP is providing tuberculosis-control services all over the country under the Stop TB strategy that is being implemented since 2006.

Since the introduction of DOTS in 1993, remarkable progress in TB control has been made. The program crossed the target of 85% treatment success rate of the new smear-positive cases in 2003 and has been maintaining over 90% since 2005. The program has successfully treated 94 % of new smear-positive cases registered in 2013.

The Case Notification rates per 100 000 population in 2014 were 68 and 122 respectively for new smear-positive and all forms (new and relapse) of TB cases. Number of all types notified TB cases increased in 2014 with a substantial increase of the extra-pulmonary cases, compared to 2013 (37406 vs 33705). Child TB (among new cases) also increased from 5051 in 2013 to 6262 in 2014.

As of 31 December 2014, countrywide a total of 3702 MD-R TB patients were enrolled for treatment including 946 in 2014. Among the 946 patients in 2014, 716 are under 24-month regimen and rest 230 are under 9- month regimen.

This report covers the activities related to TB control performed in 2014, case finding in 2014 and treatment outcomes of cases registered in 2013.

NTP thankfully acknowledges the support and contributions of all partners including NGO, Development and Donor Agencies.

2. Introduction: History Of The National Tuberculosis Control Program

Tuberculosis (TB) is a major public health problem in Bangladesh since long. The history of tuberculosis in Bangladesh has different stages.

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". The NTP started its field implementation in November 1993 in four thanas (upazilas) and progressively expanded to cover all upazilas by mid-1998. In July 1998, the NTP was integrated into the Communicable Disease Control component of the Essential Services Package under the Health and Population Sector Program (HPSP). In 2003, HPSP was renamed as "Health, Nutrition and Population Sector Program" (HNPSPP), (2003-2011). Now Ministry of Health and Family Welfare (MOHFW) has been implementing the Health, Population and Nutrition Sector Development Program (HPNSDP) for a period of five years from July 2011 to June 2016, with the goal of ensuring quality and equitable health care for all citizens in Bangladesh by improving access to and utilization of health, population and nutrition services. In all the sector programs tuberculosis control has been recognized as one of the priority programs.

In 2002, DOTS services were expanded to Dhaka Metropolitan City and by 2007 the services were available throughout the country. The country is implementing Stop TB Strategy since 2006.

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 in 2003 and has been maintaining over 90% since 2005.

The NTP started Programmatic management of drug resistant TB with 24-month regimen in (August) 2008 in NIDCH, Dhaka and by end of 2013 this service has been made available in CDHs Chittagong, Khulna, Sylhet and Pabna. The CDH, Rajshahi has been managing drug resistant TB since May 2005 with 9-month regimen under operational research.

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 Millennium Development Goals (MDGs)

This report covers the activities related to TB control performed in 2014, case finding in 2014 and treatment outcomes of cases registered in 2013. The country's estimated population for 2014 based on the projected population of 2011 census of the Bangladesh Bureau of Statistics (BBS) is 15,67,54,787.

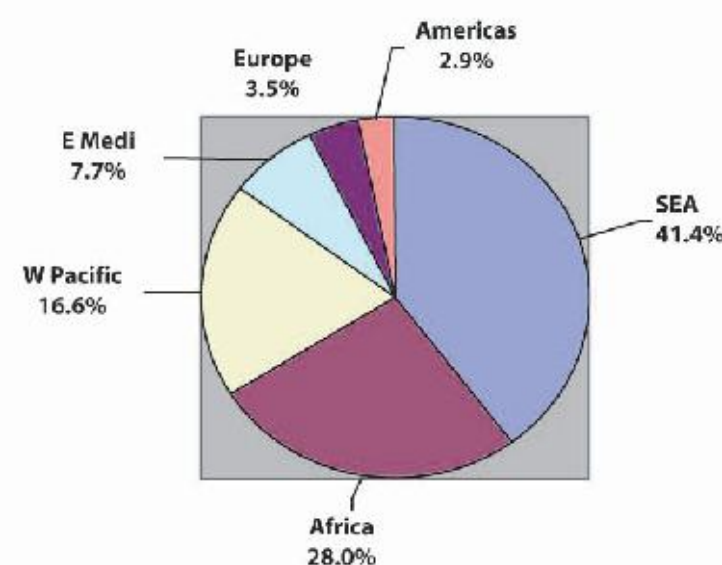
3. Tuberculosis Scenario

3.1 Global TB Scenario

In 2014, an estimated 9.6 (9.1-10) million new TB cases occurred globally and 13 (11-14) million people were suffering from active TB disease. Among the 9.6 million incident cases 3.2 million were women and 1 million were children. An estimated 1.2 million (12%) of the 9.6 million new TB cases were co-infected with HIV. In this year an estimated 1.5 million died from TB (including 400 000 deaths among HIV-positive TB patients). Among the 1.5 million deaths 480 000 were women and 140 000 were children.

The majority of cases worldwide in 2014 were in the South-East Asia (41%), African (28%) and Western Pacific (17%) regions (fig 1). India and China alone accounted for 23% and 10% of total cases, respectively.

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



Source : *Global Tuberculosis Control, WHO, 2015*

In 2014, about 63% (6.3 million) of the estimated 9.6 million people who developed TB were notified as newly diagnosed cases. Globally (for the TB patient registered in 2013), the treatment success rate was 86% among all new TB cases.

The Stop TB strategy is the approach recommended by WHO to reduce the burden of TB in line with global targets set for 2015.

¹ According to "Global Tuberculosis Control, WHO, 2015" report.

Stop TB strategy at a glance

| | |
|--------------|--|
| Vision : | A TB- free world |
| Goal : | To dramatically reduce the global burden of TB by 2015 in line with the Millennium Development Goals and the stop TB partnership targets. |
| Objectives : | <ul style="list-style-type: none"> • Achieve universal access to high-quality care for all people with TB • Reduce the human suffering and socioeconomic burden associated with TB • Protect vulnerable populations from TB, TB/HIV and drug resistant TB • Support development of new tools and enable their timely and effective use • Protect and promote human rights in TB prevention, care and control |
| Targets : | <ul style="list-style-type: none"> • MDG 6. Target 6c. Halt and begin to reverse the incidence of TB by 2015 • Targets linked to the MDGs and endorsed by the stop TB partnership <ul style="list-style-type: none"> o 2015: reduce prevalence of and deaths due to TB by 50% compared with a baseline of 1990 o 2050: eliminate TB as a public health problem (defined as the global incidence of active cases <1 per 1 million population per year). |

Components of Stop TB strategy

1. Pursue high quality DOTS expansion and enhancement

- Secure political commitment, with adequate and sustained financing
- Ensure early case detection and diagnosis through quality assured bacteriology
- Provide standardized treatment with supervision and patient support
- Ensure effective drug supply and management
- Monitor and evaluate performance and impact

2. Address TB/HIV, MDR-TB, and the needs of poor and vulnerable populations

- Scale- up collaborative TB/HIV activities
- Scale- up prevention and management of multi-drug resistant TB (MDR-TB)
- Address the needs of TB contacts, and of poor and vulnerable populations

3. Contribute to health systems strengthening based on primary health care

- Help improve health policies, human resource development, financing, supplies, service delivery and information
- Strengthen infection control in health services, other congregate settings and households
- Upgrade laboratory networks, and implement the Practical Approach to Lung Health (PAL)
- Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health

4. Engage all care providers

- a. Involve all public, voluntary, corporate and private providers through Public-Private Mix (PPM) approaches
- b. Promote use of the International Standards for Tuberculosis Care (ISTC)

5. Empower people with TB, and communities through partnership

- a. Pursue advocacy, communication and social mobilization
- b. Foster community participation in TB care, prevention and health promotion
- b. Promote use of the patients' charter for tuberculosis care

6. Enable and promote research

- a. Conduct program based operational research
- b. Advocate for and participate in research to develop new diagnostics, drugs and vaccines

3.2 South-East Asia Regional Scenario*

Tuberculosis continues to remain one of the major health and developmental problems in the South-East Asia Region of WHO. With 26% of the world's population this region carries over 41% of the global TB burden. An estimated 4 million new TB cases and 460 000 TB deaths occurred in 2014; and about 5.4 million people were suffering from the active TB disease in that year. Five of the 11 Member countries in the region are among the 22 high burden countries while India alone accounts for 23% of the world's TB cases. (The WHO South-East Asia Region includes the following countries: Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste (High burden).

3.3 Bangladesh Scenario*

In Bangladesh, the estimated incidence and prevalence rates for all forms of Tuberculosis in 2014 were 227 and 404 per 100 000 population respectively. An estimated 51 per 100 000 people died of TB in the same year. The estimated incidence rate of HIV positive TB cases increased from 0.26/100,000 in 2013 to 0.36/100,000 in 2014. The proportion of multidrug-resistant tuberculosis (MDR-TB) among new TB cases was 1.4% and that among re-treatment cases was 29%. (Table 1)

Table 1: Estimated population and TB Burden, Bangladesh- 2014

| | | |
|---|---|------------------------------|
| o | Population: | 159 million |
| o | Mortality rate (excluding HIV+ve TB): | 51/ (37-68) 100 000 pop |
| o | Mortality rate (HIV+ve TB only): | 0.11 (0.09-0.14)/100 000 pop |
| o | Prevalence rate (including HIV+ve TB): | 404/ (211-659)/100 000 pop |
| o | Incidence rate (including HIV+ve TB): | 227 (199-257)/100 000 pop |
| o | Incidence rate (HIV+ve TB only): | 0.36/100 000 pop |
| o | Proportion of new TB cases with MDR-TB | 1.4% |
| o | Proportion of retreatment TB cases with MDR-TB: | 29% |

*Ref: *Global Tuberculosis Report, WHO, 2015*

4. National Tuberculosis Control Program (NTP)

4.1 Vision of NTP

Tuberculosis is eliminated from Bangladesh as a public health problem (i.e. incidence of TB disease is less than one new case per million population per year).

4.2 Mission of NTP

The NTP aims to strengthen the effort of TB control through effective partnerships, mobilization of resources and ensuring quality diagnostic and treatment services under defined DOTS 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

The overall goal of TB control is to reduce morbidity, mortality and transmission of TB until it is no longer a public health problem.

4.4 Objectives of NTP

The initial objectives of NTP were:

- To sustain the global targets of achieving at least 70% case detection and 85% treatment success among smear-positive TB cases under DOTS for the country as whole;
in order to then
- Halve the TB death and TB prevalence rates towards and to have halted and "begun to reverse the incidence" as stated under target 6.c, Goal 6 of the MDGs set for 2015.
- The present objective is to achieve universal access to quality TB care for all TB patients.

4.5 Services of the Programme

The NTP introduced the DOTS strategy in 1993 and since 2006 NTP has been implementing the Stop TB Strategy. 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
- ✓ The National Institute of Diseases of the Chest and Hospital (NIDCH), Dhaka
- ✓ The Government Leprosy Hospital in Nilphamari
- ✓ District Sadar Hospitals.
- ✓ Urban health centre's in all metropolitan cities (GO and NGOs)
- ✓ Public and private medical college hospitals
- ✓ Work places
- ✓ Prisons
- ✓ Combined Military Hospitals and other defense hospitals

4.6 Major Events /Achievements

The major events/achievements during 2014 are as follows:

- Completed TB Epidemiological and Impact Analysis- 2014
- Developed (Revised) National Strategic Plan for National Tuberculosis Control Programme (2015-2020)
- Conducted sixth National TB Program review through Joint Monitoring Mission (JMM)
- Developed and submitted Concept Note for Global Fund TB Grant under NFM
- Number of microscopy lab were increased from 1089 to 1104
- Number of centre with Gene-Expert Machine increased from 12 to 27
- Observed World TB Day 2014 and published Fact Sheet on Tuberculosis (In Bengali)
- NTP made MOU with BKMEA to provide TB control services program in knitting industries
- NTP started implementing WHO-approved rapid diagnostics (WRD), employing molecular techniques for the diagnosis of TB
- In align with WRD, NTP introduced new disease classification, new definitions and new recording/reporting tools from July 2014. (Related circular is attached as Annex-7a)
- Finalized the protocol of National TB prevalence Survey and conducted field testing
- Developed protocol for shorter MDR regimen

4.7. Major Challenges:

- Sustaining the quality DOTS
- Further strengthening laboratory services including expansion of culture and DST
- Further improving case notification of smear-negative, extra-pulmonary TB cases
- Improving capacity for diagnosis and management of child TB cases
- Scaling up management of MDR-TB patients
- Ensuring un-interrupted supply of quality drugs and logistics.
- Ensuring adequate space and ideal condition for storage of drugs and logistics
- Continuation of assessing quality of anti-TB Drugs
- Sustaining partnerships with NGOs, private sector, academic institutes and work place in TB Control

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

Bangladesh adopted the internationally recommended DOTS strategy in 1993. DOTS services were made available to all upazilas by June 1998 and by 2007 NTP reached the 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:

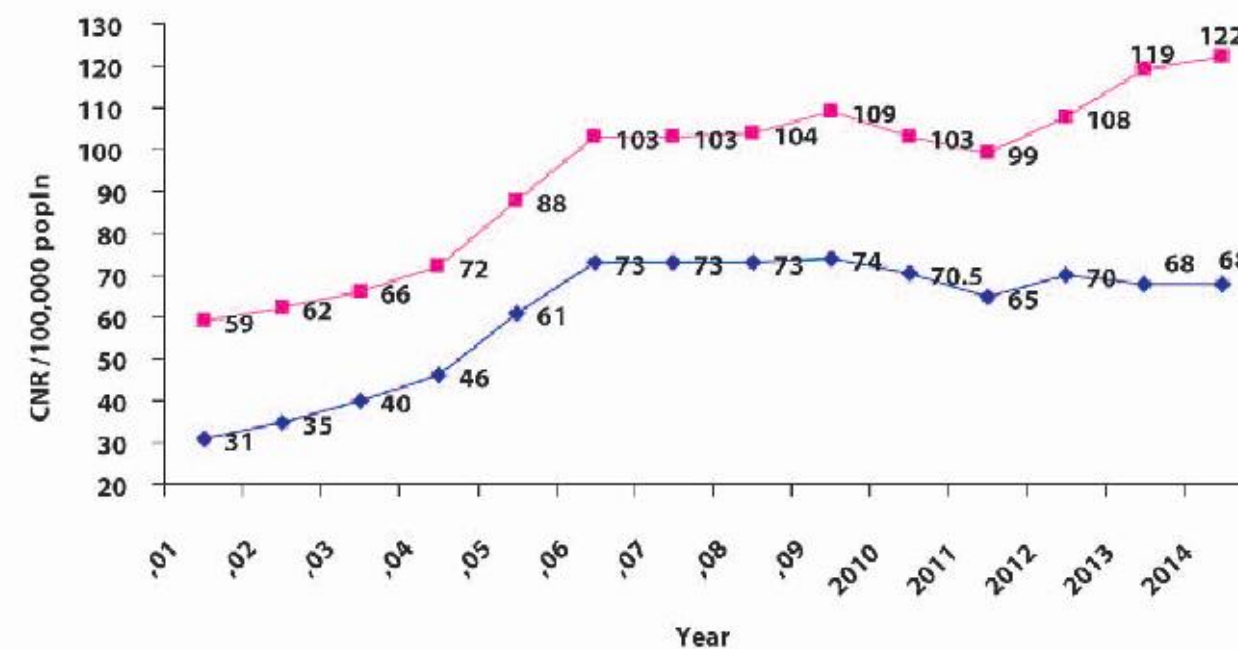
Case Notification rate (CNR) is defined as the number of cases registered and reported to NTP per one hundred thousand population per year.

After the introduction of the DOTS strategy in 1993, the overall progress in case finding was slow and steady until 2001 to reach case notification rate for new smear positive cases of 31/100,000 population. From 2001 onwards, case notification accelerated to reach 46/100,000 in 2004 and further increased to 61/100,000 in 2005 and 73/100,000 in 2006. In 2009, the case notification was further increased to 74/100,000. In 2010 the number of reported TB cases were lower (70.5/100,000 cases) than that in 2009, and in 2011 NSP TB case notification rate was further decreased to 65/100,000 population. As a result of additional effort addressing detection of smear negative and child TB cases with special attention to hard to reach areas through social support for ultra-poor group case notification increased to 70/100 000 population during 2012, along with overall increase in notification of all forms of TB cases; from 51/100 000 population in 2001 to 108/100 000 population in 2012. During 2013 the notification of new smear negative cases increased significantly while that of new smear positive cases decreased slightly; as a result though overall CNR increased to 119/ 100 000 population, the CNR of New smear positive cases slightly decreased to 68/100 000 population. However, in 2014 the case notification rate of new smear positive/bacteriologically confirmed cases remains same (68/100 000 population) as 2013 while case notification of smear negative and extra-pulmonary cases increased to reach the notification rate for all forms of TB cases to 122/ 100 000 population in 2014. (Fig 2).

Case detection rate:

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 224 per100 000 population in 2013 and the case detection rate is about 53%. Considering the same incident rate the CDR for 2104 is over 54%; will be revised after getting Global TB report 2015.

Fig 2. Nation wide case notification rate/100 000 population:
NSP and all forms of TB; 2001-14



5.2.1 Nationwide Case Notification

A total of 196797 (191166+ 5631) cases including 5631 combined cases of return after failure, return after default (loss to follow up) and others have been reported to NTP in 2014. So the overall case notification rate excluding those 5 631 cases was (122/ 100 000 population). Among the total 196 797 cases, about 85.1% were reported through the upazilas. Over 54% of the cases were new smear-positive (Bacteriologically confirmed) and only 2.1% were relapses. New smear-negative and extra-pulmonary cases were 21.78% and 19.01% respectively. Proportions of extra-pulmonary cases reported through metropolitan cities and CDCs were significantly higher than those through upazilas (Table 2).

Table 2: Case notification by type of reporting unit, 2014

| 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 | 95,716 | 57.17 | 2,027 | 1.21 | 36,346 | 21.71 | 694 | 0.41 | 27,854 | 16.64 | 161 | 0.10 | 4,622 | 2.76 | 167,420 | 85.07 |
| Metrop. city | 9,585 | 37.31 | 871 | 3.39 | 5,663 | 22.04 | 167 | 0.65 | 8,348 | 32.49 | 142 | 0.55 | 915 | 3.56 | 25,691 | 13.05 |
| CDC | 1,438 | 39.01 | 91 | 2.47 | 851 | 23.09 | 2 | 0.05 | 1,204 | 32.66 | 6 | 0.16 | 94 | 2.55 | 3,686 | 1.87 |
| Total | 106,739 | 54.24 | 2,989 | 1.52 | 42,860 | 21.78 | 863 | 0.44 | 37,406 | 19.01 | 309 | 0.16 | 5,631 | 2.86 | 196,797 | 100.00 |

Over 39% of the total 196 797 notified cases were female; (M:F=1.55:1). In case of new smear positive/pulmonary bacteriologically confirmed and new smear negative/pulmonary clinically diagnosed cases proportions of female cases were 36% and 37% respectively; where as in case of extra pulmonary cases it was nearly 52% (Table 3).

Table. 3. Case notification by type of cases and sex, 2014

| Type of cases | Male | | Female | | Total | M/F Ratio |
|---------------------------------------|----------------|--------------|---------------|--------------|----------------|-------------|
| | Number | (%) | Number | (%) | | |
| Pulmonary Bacteriologically Confirmed | 68,119 | 63.82 | 38,620 | 36.18 | 106,739 | 1.76 |
| Pulmonary Clinically Diagnosed | 26,971 | 62.93 | 15,889 | 37.07 | 42,860 | 1.70 |
| Extra Pulmonary | 17,993 | 48.10 | 19,413 | 51.90 | 37,406 | 0.93 |
| Relapses | 2,906 | 69.84 | 1,255 | 30.16 | 4,161 | 2.32 |
| Treatment after failure | 510 | 73.07 | 188 | 26.93 | 698 | 2.71 |
| Treatment after loss to follow up | 208 | 79.69 | 53 | 20.31 | 261 | 3.92 |
| Others | 2,959 | 63.33 | 1,713 | 36.67 | 4,672 | 1.73 |
| Total | 119,666 | 60.81 | 77,131 | 39.19 | 196,797 | 1.55 |

Age sex distribution of new smear positive pulmonary bacteriologically confirmed cases

Among the notified new smear positive/pulmonary bacteriologically confirmed cases the number of male patients was higher in all age groups except in under-15 children, where TB cases among girls are nearly two times higher than that among boys. Over 67 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 (77%vs 62%). About 15% of smear positive TB cases belong to age group of over 64 years and in this age group proportion is higher in males than in females (19%vs 8%). The overall male-female ratio in these notified cases is 1.76 and the ratio increases with age. In old people (>64 years), there are over 4 times more men notified than women (Figure 3, 6).

Age sex distribution of new smear negative clinically diagnosed cases

Figures 4 and 6 shows that the number of notified new smear negative cases was almost equal in both sexes up to age 24 years. From 25 years and onwards the number of male cases was higher in all age groups and male-female ratio increases with the age to reach 3.88 in the age group of over 64 years (fig. 4, 6)

Age sex distribution of new extra-pulmonary cases

In the age groups ranging from 5 to 44 years the number of female cases is more than that of male cases. In the age group 45-54 years the reported numbers are almost equal in both the sexes. And in all other age groups the number of male cases is higher than that of female cases. (Fig 5, 6).

Nationwide case notification trend in absolute number is shown in figure 7.

Fig. 3: Notification of new smear positive/ pulmonary bacteriologically confirmed TB by age and sex, 2014

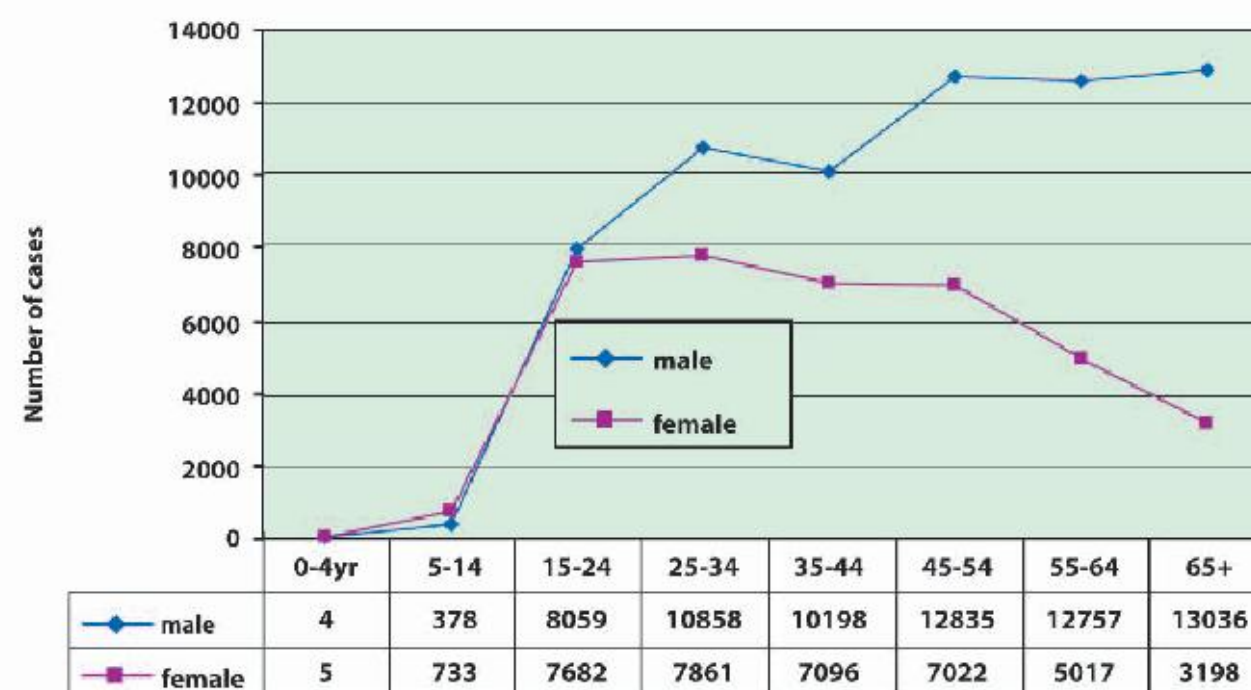


Fig. 4 Notification of new pulmonary clinically diagnosed TB by age and sex, 2014

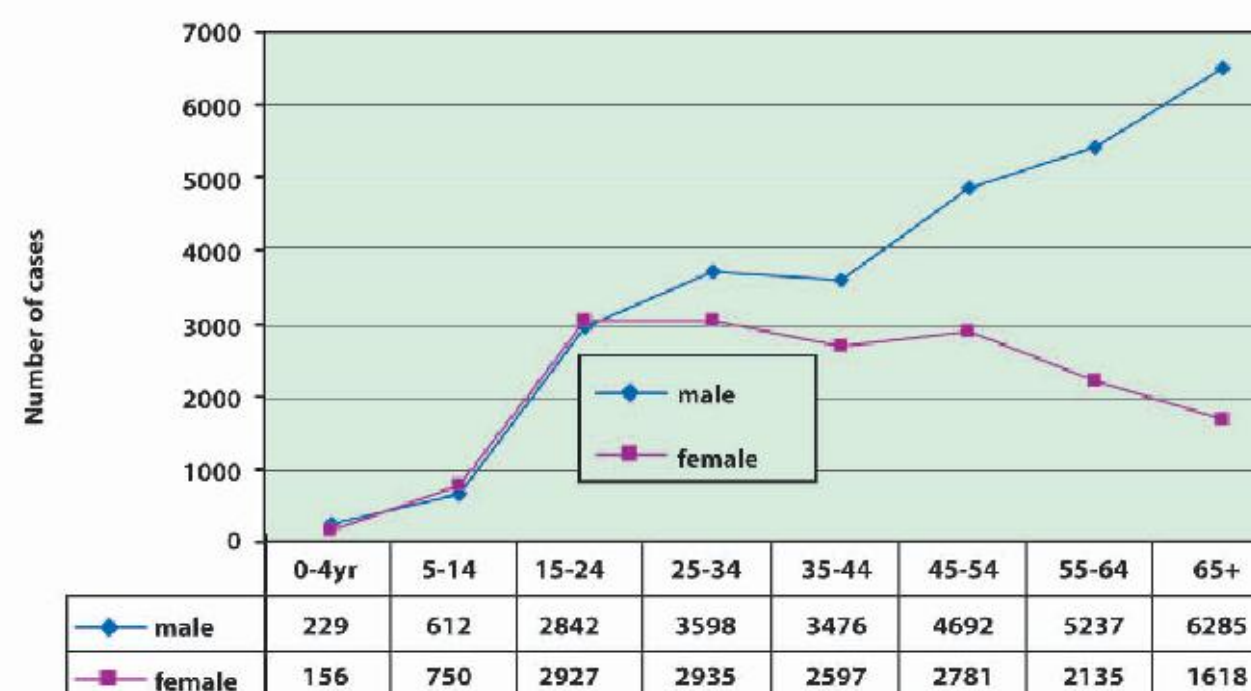


Fig. 5 Notification of new extra-pulmonary TB by age and sex, 2014

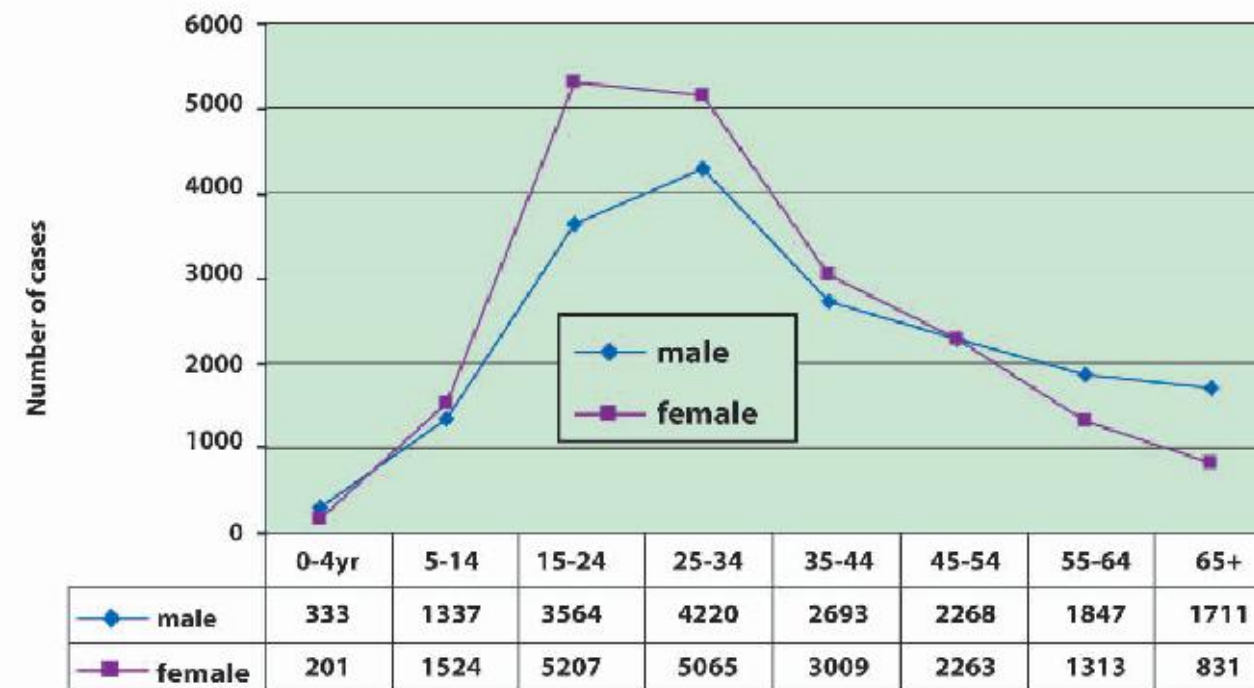


Fig. 6 Male- Female Notification Ratio by age group: new pulmonary bacteriologically confirmed, new pulmonary clinically diagnosed & new extra-pulmonary TB cases, 2014

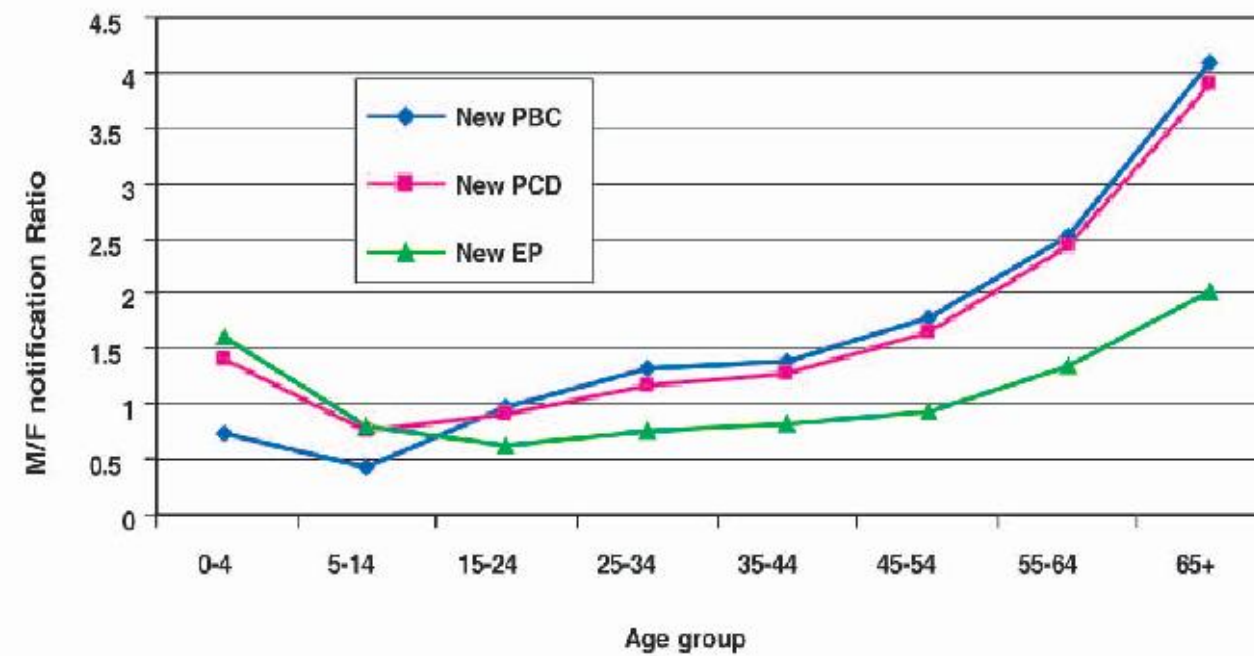
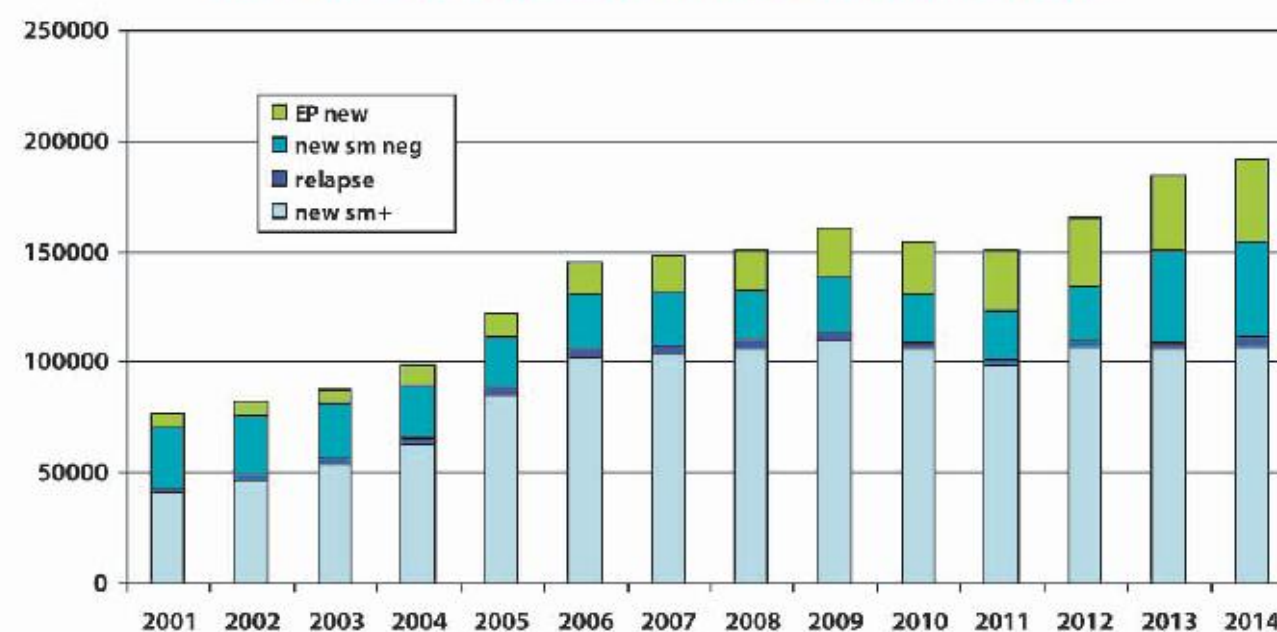


Fig. 7. Nation wide yearly case notification (all forms); absolute number; 2001-2014



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

Out of seven divisions, five divisions showed new pulmonary bacteriologically confirmed TB case notification rate (CNR) of more than 70 (72-90) per one hundred thousand population in 2014 while the nationwide CNR was 68 /100 000 population. For all forms of TB cases the nationwide CNR is almost 122/100 000 population, except Rajshahi all the divisions are showing CNR above the national rate; while Sylhet having the highest (154/100 000 population) CNR (Table 4).

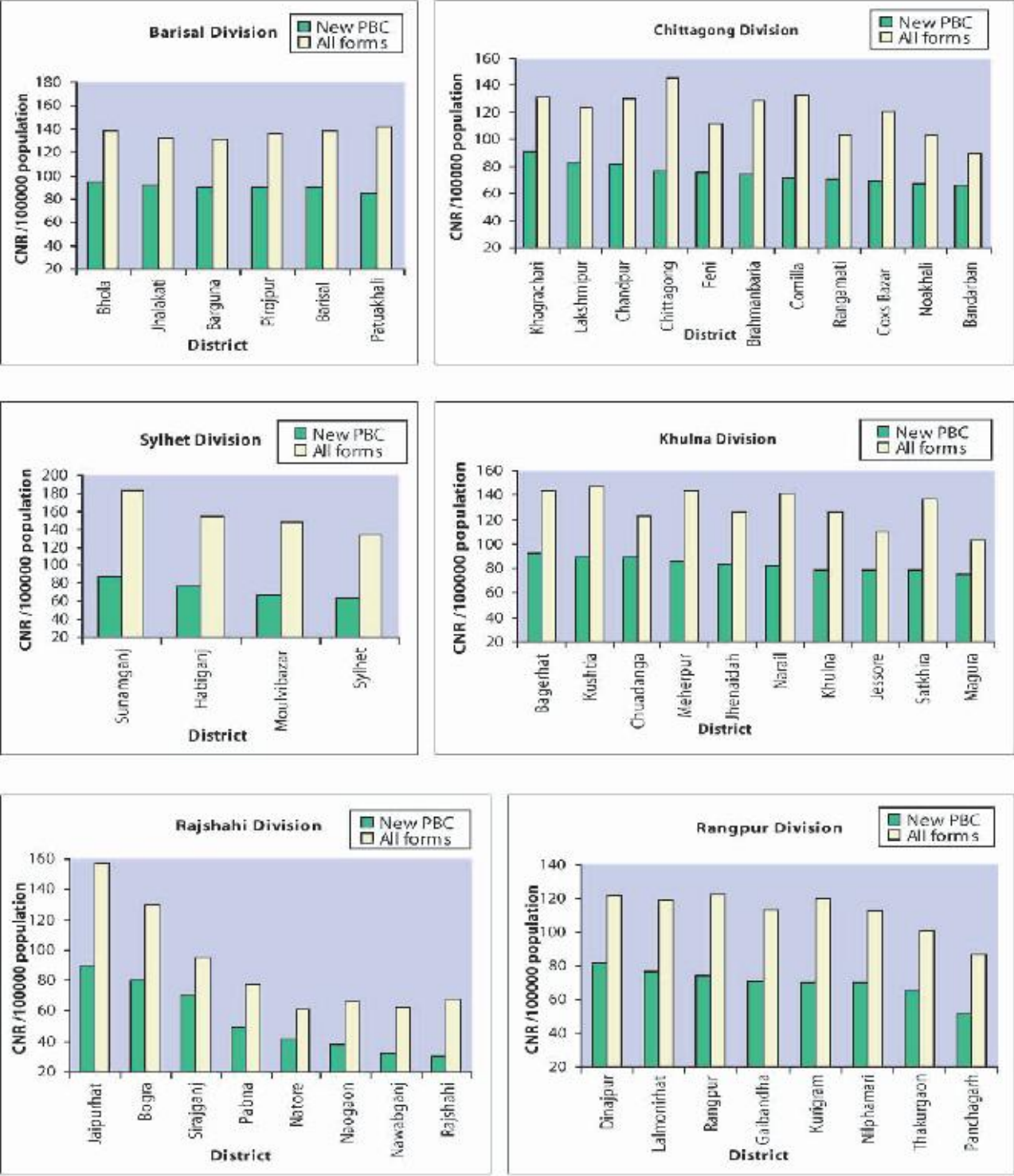
Table 4: Division-wise new pulmonary bacteriologically confirmed (PBC) & all forms of TB cases by type of reporting unit

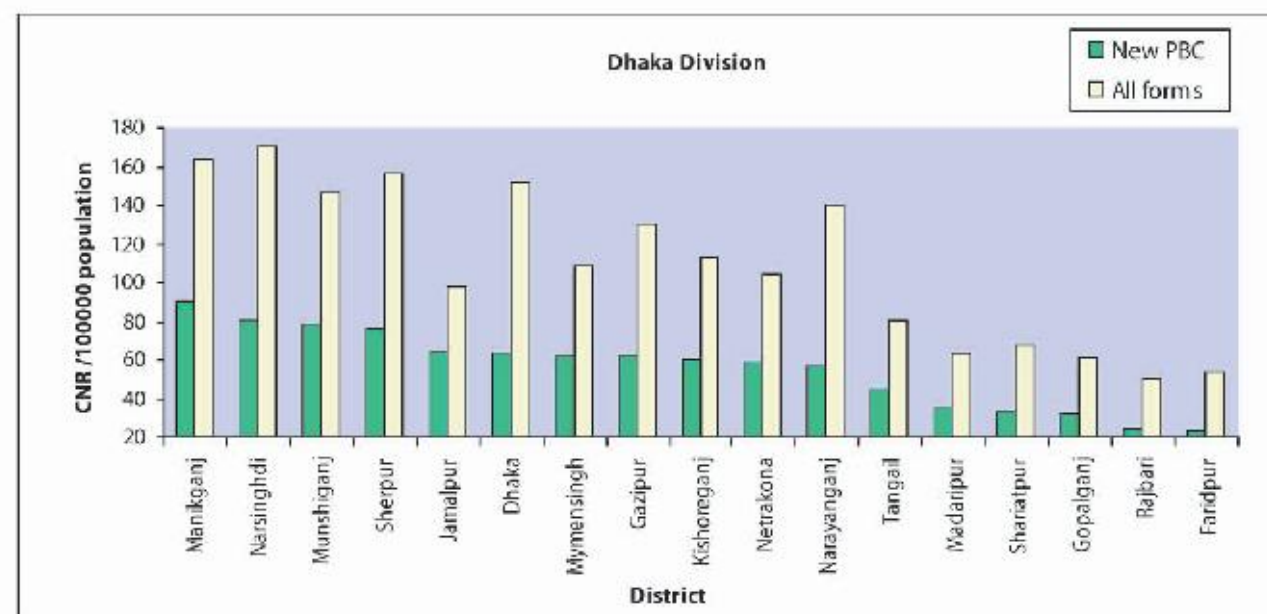
| Division | Number of reported cases | | | | | | | | Estimated Projected population of 2014 | New PBC CNR /100000 population | All forms CNR /100000 population |
|------------|--------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|--|--------------------------------|----------------------------------|
| | Upazila | | Metro | | CDC | | Total | | | | |
| | New PBC | All forms | New PBC | All forms | New PBC | All forms | New PBC | All forms | | | |
| Barisal | 7,584 | 11,484 | 160 | 339 | 55 | 130 | 7,799 | 11,953 | 8,699,173 | 89.65 | 137.40 |
| Chittagong | 20,644 | 33,688 | 2,338 | 5,922 | 79 | 229 | 23,061 | 39,839 | 31,034,958 | 74.31 | 128.37 |
| Dhaka | 24,455 | 46,879 | 5,966 | 15,868 | 454 | 1,081 | 30,875 | 63,828 | 52,261,706 | 59.08 | 122.13 |
| Khulna | 13,203 | 19,995 | 437 | 916 | 218 | 498 | 13,858 | 21,409 | 16,625,468 | 83.35 | 128.77 |
| Rajshahi | 10,174 | 16,210 | 203 | 508 | 401 | 891 | 10,778 | 17,609 | 19,936,631 | 54.06 | 88.32 |
| Rangpur | 12,112 | 18,966 | - | - | 207 | 653 | 12,319 | 19,619 | 17,065,012 | 72.19 | 114.97 |
| Sylhet | 7,544 | 15,576 | 481 | 1,223 | 24 | 110 | 8,049 | 16,909 | 11,002,826 | 73.15 | 153.68 |
| Total | 95,716 | 162,798 | 9,585 | 24,776 | 1,438 | 3,592 | 106,739 | 191,166 | 156,754,787 | 68.09 | 121.95 |

5.2.3 District-wise case notification rates (CNR)

The district wise case notification rates of each division in 2014 are shown in Figure 8 and details of case notification by district are shown in Annex- 1

Fig. 8 District-wise CNR of New Pulmonary Bacteriologically Confirmed (PBC) and all forms of TB cases in 2014





5.3 Treatment Outcomes

All diagnosed TB patients are regularly registered for treatment. The treatment lasts for six months (new cases) to eight months (re-treatment cases). At the end of the treatment, the patients are evaluated with regard to treatment outcomes. The possible outcomes are: cured (only applicable to smear-positive cases), treatment completed, died, treatment failure, defaulted (loss to follow up) and transferred out. "Cured" and "treatment completed" are also grouped as "treatment success" or treatment with favourable outcome while "died", "treatment failure", "defaulted" and "transferred out" are considered as unfavourable 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 2013 from all sources (upazilas, metropolitan cities and CDCs).

Definitions of treatment outcomes

Cured: Full course of treatment received with negative smear at the end of treatment

Treatment completed: Full course of treatment received but no proof of negative smear at the end of treatment

Died: Died due to any cause during the treatment

Defaulted: Interrupted treatment for two consecutive months or more (now it is known as lost to follow up)

Treatment failure: Remaining or again becoming smear-positive after at least five (new cases) or eight months (retreatment) of treatment

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. As a result, this treatment success rate has improved further to reach 89% for the cases registered in 2004. The NTP has been maintaining over 91% treatment success rates since 2005 (Figure 9). In fact the NTP has successfully treated 99 140 (94.07%) of the 105 390 new smear-positive cases registered in 2013. The default rate was 1.12% while 3.53% of the patients have died during treatment (Figure 10).

Fig. 9: Trends in treatment success rates, 1993-2013 cohorts

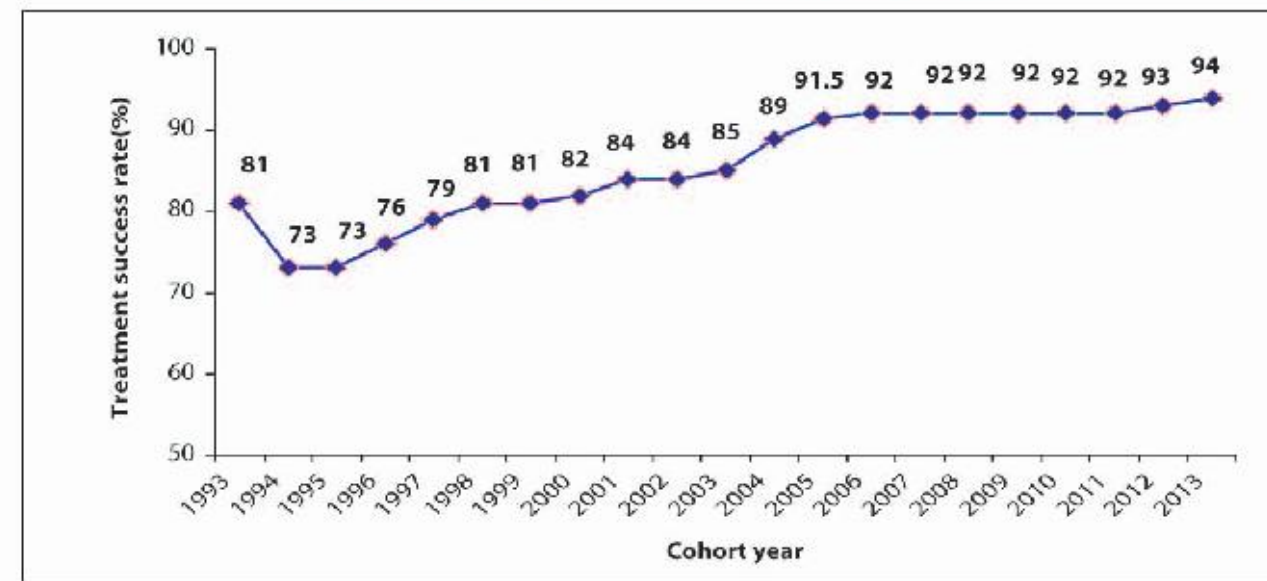
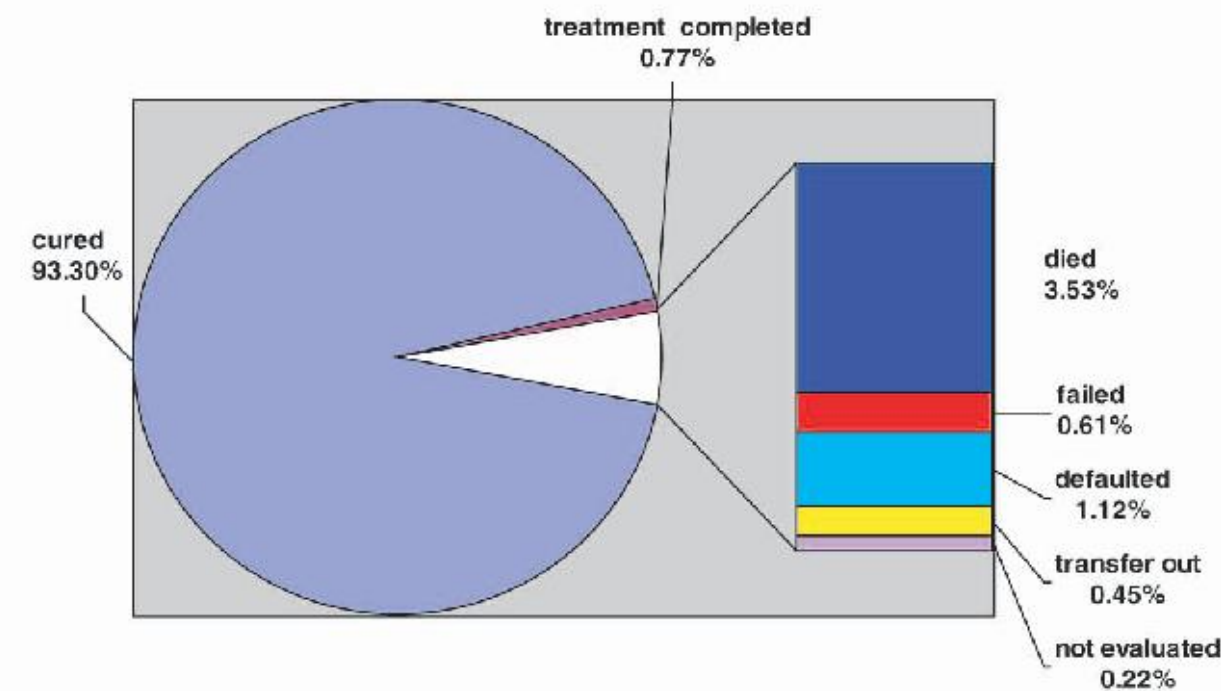


Fig.10: Treatment outcomes of new smear-positive cases registered in 2013

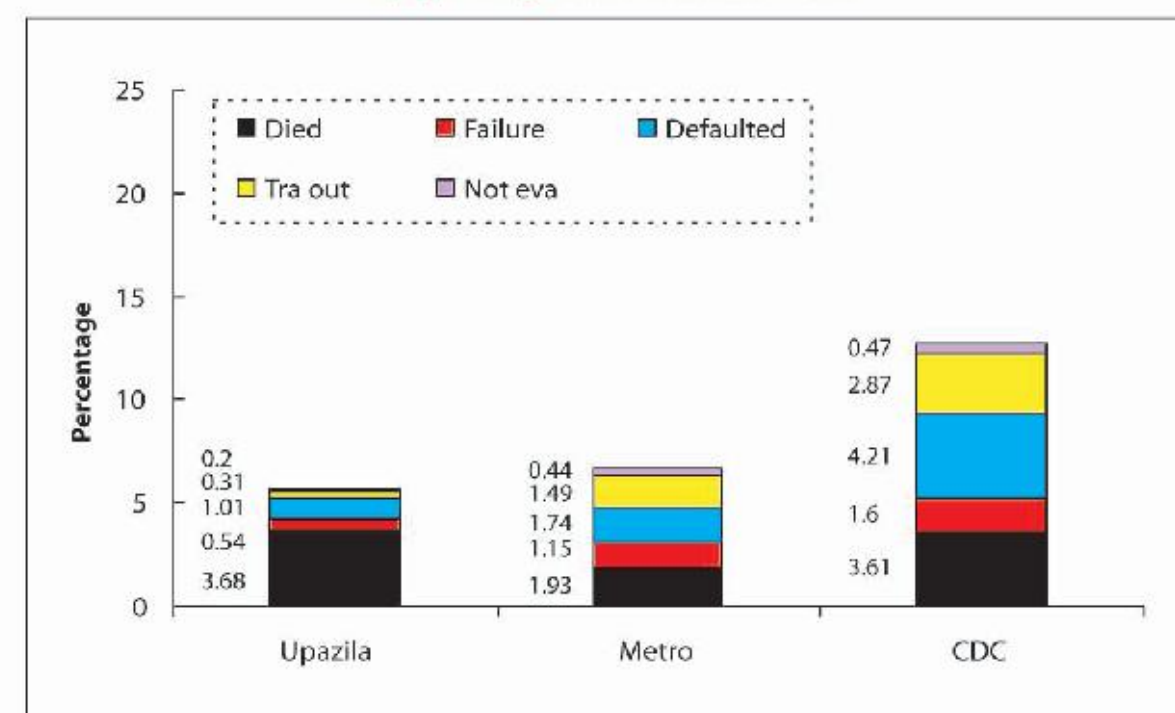


The treatment success rate of new smear positive/Bacteriologically confirmed TB cases is highest (>94%) among the cases registered in upazilas followed by among cases registered in metropolitan cities (93%) and the lowest is among those registered in CDCs (87%); (Table 5). This year the proportion of transferred out cases has been reduced compared to the previous year in metropolitan cities resulting in improving treatment success rate. The proportion of loss to follow up and transferred out cases are higher in CDCs (Figure 11) resulting in lower treatment success rate. In order to further improve the treatment success rate, emphasis is to be given on defaulter tracing and getting feedback of transferred out cases with special attention in urban setting. .

Table 5: Treatment success by type of registration unit (2013 cohort)

| Type of registration unit | Number of cases registered | Treated successfully |
|---------------------------|----------------------------|----------------------------|
| Upazila | 94,607 | 89,175 (94.26%) |
| Metropolitan city | 9,286 | 8,659 (93.25%) |
| CDC | 1,497 | 1,306 (87.24%) |
| Total country | 105,390 | 99,140 (94.07%) |

Fig. 11: Unfavourable treatment outcomes of new smear positive cases by type of registration unit (2013 cohort)



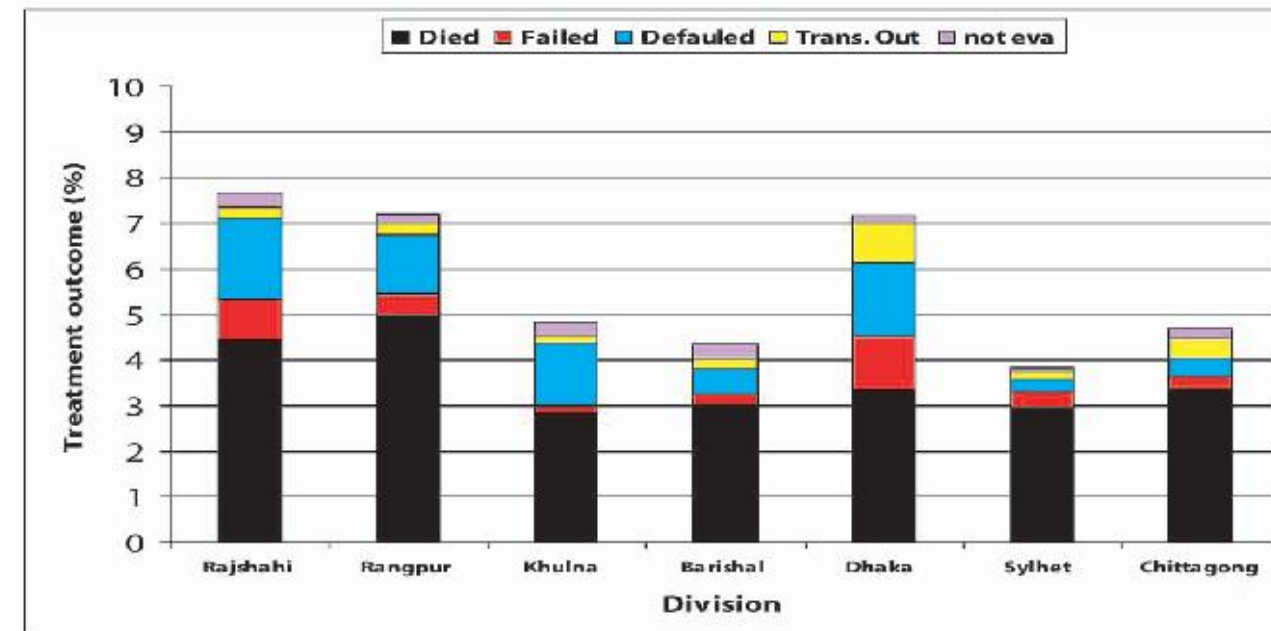
5.3.2 Division-wise Treatment Outcomes

Table 6 shows that all seven divisions have successfully treated more than 92% of the new smear-positive cases registered in 2013 with overall treatment success rate of over 94%. Division wise unfavourable outcomes are shown in fig 12. The patients died in the divisions during TB treatment varied from 2.8% to 5. % while the failure rate varied from 0.17% to 0.88%. The default rate among those patients varied from 0.28% to 1.79%. Data shown in Figure 12 include also metropolitan cities and CDCs.

Table 6: Division-wise treatment success rate of new smear-positive cases registered in 2013

| Division | Number of case registered | Cured | Treatment completed | Successfully treated |
|----------------------|---------------------------|--------------------------|----------------------|--------------------------|
| Rajshahi | 10,400 | 9,568 92.00% | 34 0.33% | 9,602 92.33% |
| Rangpur | 11,806 | 10,916 92.46% | 40 0.34% | 10,956 92.80% |
| Khulna | 13,454 | 12,663 94.12% | 138 1.03% | 12,801 95.15% |
| Barisal | 8,357 | 7,887 94.38% | 108 1.29% | 7,995 95.67% |
| Dhaka | 30,996 | 28,440 91.75% | 328 1.06% | 28,768 92.81% |
| Sylhet | 7,895 | 7,551 95.64% | 42 0.53% | 7,593 96.17% |
| Chittagong | 22,482 | 21,306 94.77% | 119 0.53% | 21,425 95.30% |
| Total country | 105,390 | 98,331 93.30% | 809 0.77% | 99,140 94.07% |

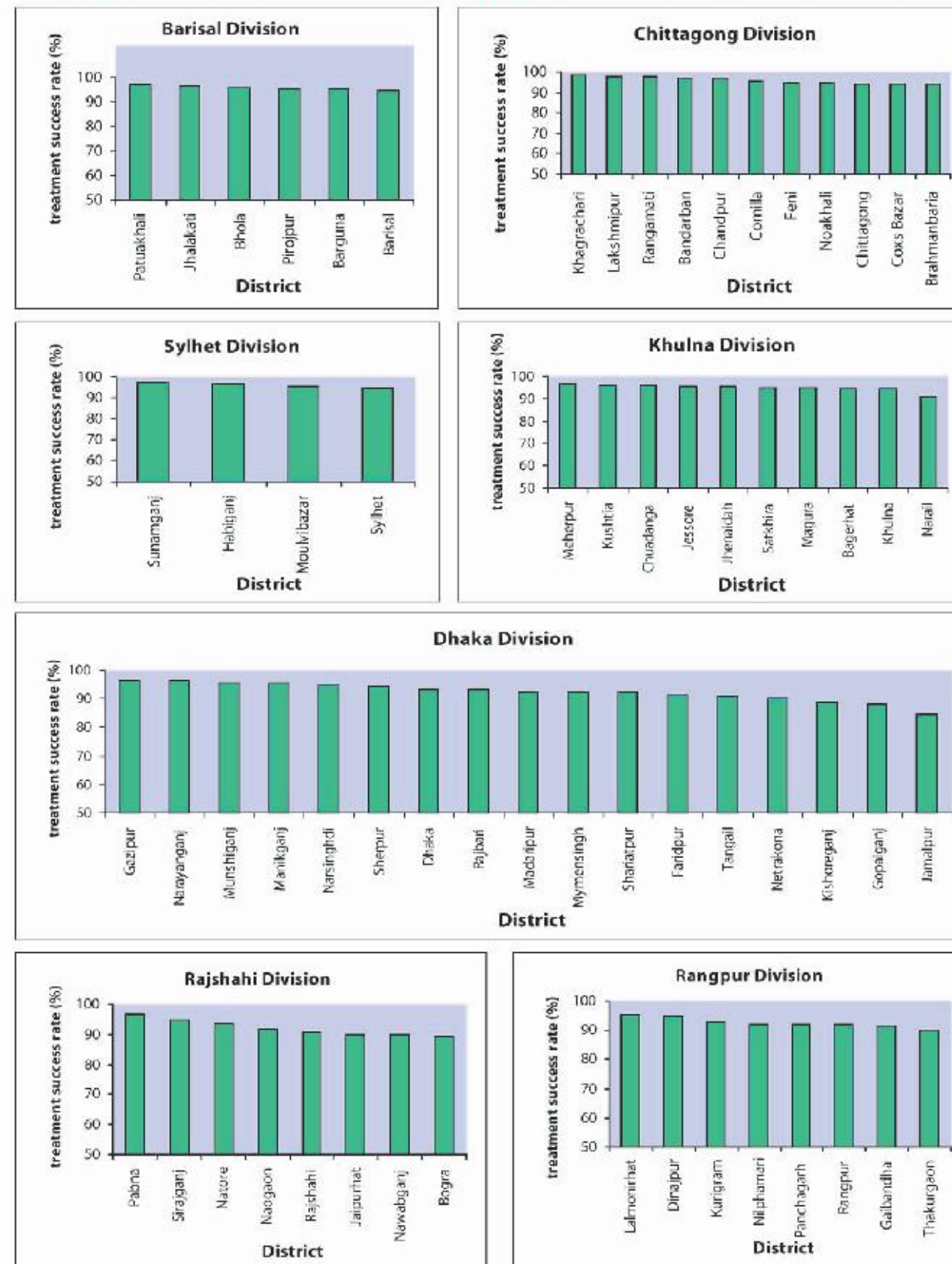
Fig. 12: Unfavourable outcomes of new smear-positive cases by division, 2013 cohort



5.3.3 District-wise Treatment Outcomes

The treatment success rates of new smear positive cases in each district for the new smear positive cases registered in 2013 are shown in Figure 13. Almost all the districts (except 4) are showing > 90% treatment success rates.

Fig.13 District-wise treatment success rates of new smear-positive cases for each division; 2013 cohort



5.3.4 Treatment Outcomes of Relapse, New Smear-negative and Extra-pulmonary (new) Cases

In 2013 a total of 2 858 relapse, 42 221 smear-negative and 33 608 extra-pulmonary TB cases were registered. The treatment success rate of relapse cases was 85.41%, and treatment completion rates of smear negative and extra-pulmonary cases were 92.29% and 90.3%, respectively. During the course of treatment 162 (5.67%) relapse, 2 181 (5.17%) smear negative and 1 337 (3.98%) extra-pulmonary cases had died; over all death rate of these three categories was 4.68%.

6. Drug Resistant TB

Drug Resistant TB (DR-TB) poses a significant threat to control of TB worldwide. Globally, an estimated 3.3% of new cases and 20.0% of previously treated cases have MDR-TB. In 2014, there were an estimated 480,000 new MDR-TB cases and approximately 190 000 deaths from MDR-TB worldwide, (Ref:WHO Global TB report 2015).

NTP Bangladesh has conducted countries first nationwide drug resistance survey in 2010-2011. According to this survey report the proportion of new TB cases with MDR-TB is 1.4% and that of retreatment cases with MDR-TB is 28.5%. On this assumption the estimated total numbers of MDR-TB cases in 2011 to 2014 in the country are shown in Table-7.

Table 7. Annual estimated number of MDR-TB cases in Bangladesh (2011-2014)

| Year | Among new PTB cases | Among retreated (including Pulmonary relapse) TB cases | Total |
|------|---------------------|--|-------|
| 2011 | 1700 | 2100 | 3800 |
| 2012 | 1850 | 2300 | 4150 |
| 2013 | 2071 | 2425 | 4496 |
| 2014 | 2094 | 2703 | 4797 |

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 started 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 MDRTB patients with GLC approved 24 months regimen and supported by the Global fund. By end of December 2014 a total of 1748 confirmed MDR-TB patients including 447 in 2014 have been enrolled. 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.

The MDR TB patients are also managed in the CDH of Rajshahi division and in three other hospitals of Damien Foundation at Jalchatra under Tangail District, Onontopur under Netrokona District and Shambhuganj under Mymensingh District with a shorter regimen of 9 months and supported by Damien Foundation, Bangladesh under operational research. Since May 2005 this centre has been managing MDR TB patients, and by end of December 2014 a total of 1393 patients including 230 in 2014 have been enrolled. A regional TB reference laboratory (RTRL) has been established in the CDH, Rajshahi in May 2008.

Details of MDR-TB patients' enrollment by the CDHs is shown in Table 8.

Suspect criteria for MDR-TB (Presumptive DR-TB cases):

- ☐ Failures of Category I and II
- ☐ Non-converters of Category I and II
- ☐ All relapses
- ☐ All return after default
- ☐ 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 | GLC approved 20-24 months regimen | | | | | | Non-GLC (DF) including CDH, Rajshahi | Grand Total |
|---------------|-----------------------------------|------------|------------|-------------|-------------|-------------|--------------------------------------|-------------|
| | NIDCH | CDH, CTG | CDH, Pabna | CDH, Khulna | CDH, Sylhet | Total | | |
| 2005 May-2007 | | | | | | | (67+69+106) = 242 | 242 |
| 2008 | 107 | | | | | 107 | 129 | 236 |
| 2009 | 179 | | | | | 179 | 181 | 360 |
| 2010 | 183 | | | | | 183 | 154 | 337 |
| 2011 | 212 | 41 | | | | 253 | 137 | 390 |
| 2012 | 290 | 86 | | | | 376 | 129 | 505 |
| 2013 | 330 | 120 | 31 | 14 | | 495 | 191 | 686 |
| 2014 | 447 | 123 | 31 | 61 | 54 | 716 | 230 | 946 |
| Total | 1748 | 370 | 62 | 75 | 54 | 2309 | 1393 | 3702 |

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

Diagnosed MDR-TB patients are enrolled for treatment. The treatment lasts 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 2-3 months followed by community management for the rest period. At the end of the treatment, the patients are evaluated with regard to treatment outcomes.

The overall trend of treatment success rates of MDR-TB patients is increasing. The treatment outcomes of the patients enrolled during 2008- 2012 under 24 months regimen are shown in Table 9.

Table 9: Treatment Outcomes MDR TB, NIDCH, 2008 - 2012 cohorts

| Year | Registered | Confirmed MDR | Outcomes Abs # | | | | | | Outcomes Percentage | | | | | | | Evaluation |
|------|------------|---------------|----------------|-----------------|--------|-----------|------|--------------------|---------------------|-----------------|--------|-----------|------|--------------------|-------------------|-----------------|
| | | | Cured | Treat completed | Failed | Defaulted | Died | Still on treatment | Cured | Treat completed | Failed | Defaulted | Died | 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 | 15 | 4 | 34 | 34 | 0 | 63.75 | 6.25 | 1.7 | 14.2 | 14.2 | 0 | 70.00 | After 36 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 |

Treatment outcome of MDR-TB patients under DF supported 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 success with treatment success rates of 74% to 82% (Table 10)

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

| Year | Registered | Confirmed MDR | Outcomes Abs # | | | | | | Outcomes Percentage | | | | | | Evaluation | |
|------|------------|---------------|----------------|-----------------|--------|-----------|------|-----------|---------------------|-----------------|--------|-----------|-------|--------------------|------------|-------------------|
| | | | Cured | Treat completed | Failed | Defaulted | Died | No result | Cured | Treat completed | Failed | Defaulted | Died | Still on treatment | | Treatment Success |
| 2008 | 29 | 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 | 25 | 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 |

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. During 2014, sputum microscopy under NTP was performed in 1104 (in 2013 it was 1089) laboratories across the country and sputum samples from a total of 16 99 798 presumptive TB cases were tested for AFB, out of which 113 081 were sputum smear positive (positivity rate 6.65%). As follow up of treatment a total number of 373 806 sputum slides were tested; out of which 4.0% were found positive. (Detailed lab report for the year 2014 is shown in Annex -3)

In 2014 number of EQA lab remain same as of 2013 i.e., 40. All 1104 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 64 081 slides were rechecked. This sample contained approximately the same distribution as the pool from where they were selected i.e. 4 029 (6.29%) positive, 789 (1.23%) scanty and 59 263 (92.48%) negative. In comparison to the year 2013, microscopy quality has been improved in 2014. For comparison the error rates (%) found in 2013 are also shown the same table below (Table: 11)

Table 11: Result of blinded rechecking of AFB smears

| Type of error | Number (2014) | Rate (2014) | Rate (2013) |
|----------------------------------|---------------|-------------|-------------|
| Total False positive by MCs | 34 | 0.71% | 1.16% |
| High false positive | 15 | 0.31% | 0.58% |
| Low/scanty false positive | 19 | 0.39% | 0.58% |
| Total False negative by MCs | 294 | 0.50% | 0.41% |
| High false negative | 167 | 0.28% | 0.29% |
| Low/scanty false negative | 127 | 0.21% | 0.12% |
| Quantification error (QE) by MCs | 152 | 3.15% | 2.70% |

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 and DST (conventional culture and identification, conventional DST by proportionate method and slide DST); 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 it services 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 Mcachines in detecting DR-TB

| Year | Number of GenXpert Installed (Cumulative) | Presumptive-DR TB Tested | RR TB Diagnosed |
|------|---|--------------------------|-----------------|
| 2012 | 12 | 1733 | 388 (22.4%) |
| 2013 | 26 | 11852 | 811 (6.8%) |
| 2014 | 39 | 43360 | 994 (2.3%) |

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

| Year | Presumptive-TB Tested | Drug Sensitive TB | Resistant TB | | |
|------|-----------------------|-------------------|--------------|----|----|
| | | | HR | R | H |
| 2012 | 705 | 220 | 213 | 18 | 32 |
| 2013 | 869 | 265 | 180 | 43 | 49 |
| 2014 | 320 | 154 | 48 | 12 | 21 |

Liquid culture also started in 2013 for culture and first line DST at NTRL. In 2013 a total 3150 samples were inoculated and 410 (13%) MTB were isolated, and in 2014, 214 (8.2%) MTB were isolated from 2599 samples.

7.3 Regional Tuberculosis Referenced Laboratory (RTRL) in Rajshahi and Chittagong

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. Renovation and installation of instrument in Khulna RTRL are almost completed in 2014. (This RTRL was formally inaugurated on June 30 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 2012-2014

| Category of TB Patients | 2012 | | 2013 | | 2014 | |
|---|--|--|--|--|--|--|
| | # 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 | 944 | 6 | 621 | 0 | 330 | 1 |
| New pulmonary clinically diagnosed | 238 | 2 | 211 | 2 | 111 | 2 |
| New Extra-pulmonary | 347 | 0 | 298 | 2 | 150 | 4 |
| All re-treatment | 122 | 1 | 53 | 0 | 38 | - |
| MDR | 147 | 0 | 175 | 1 | 140 | 0 |
| Total | 1798 | 9 | 1358 | 5 | 769 | 7 |

Table:15 :TB among PLWHA in 2012-2014

| Year | # of PLWHA tested for AFB | # of PLWHA found AFB positive | Remarks |
|------|---------------------------|-------------------------------|---|
| 2012 | 433 | 15 | From Ashar Alo Society only |
| 2013 | 681 | 23 | From Ashar Alo Society, PIME SISTER and KMSS only |
| 2014 | 746 | 7 | From Ashar Alo Society and PIME SISTER only |

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, follow up 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 from January to December 2014. Besides these, 76 monitoring meetings in each quarter were organized at 64 districts.

Table 16: Tuberculosis training activities-2014

| Course | Duration (Days) | Category of participants | Funding Source and No. of Participants | | |
|---|-----------------|--|--|-----|-------|
| | | | GFATM | GOB | USAID |
| Training of Lab. staff on culture and DST | 14 | Microbiologists & Medical Technologists (Lab) | 6 | | |
| Training & refresher training on LED microscopy | 14 | Medical Technologists (Lab) | 24 | | 234 |
| TB management training of newly recruited Medical Officers | 6 | Medical Officer (GO) and Clinic Manager from NGOs | 411 | | |
| Training on X-Ray, EP, PMDT, IC, TB/HIV for Medical doctors | 5 | Medical Officer (GO) and Clinic Manager from NGOs | 256 | | |
| Training of Doctors on diagnosis of Child TB | 3 | Medical doctors from District, Upazilla & Medical Colleges | 102 | | |
| Training of Doctors on PAL | 3 | Medical doctors from CDCs & UHCs | 15 | | |
| Conduct training course for mid-level staff on PMDT, IC, TB/HIV | 3 | MA, Pharmacists, TLCA from District & Upazilla | 510 | | |
| Train / retrain central, divisional and district level staff on data entry and management | 3 | Statisticians, Program Organizers & TLCAs from District & sub-district | 74 | | 236 |

| | | | | | |
|---|---|---|--------|--|----------|
| TOT for community clinic health care provider | 3 | Medical doctors from CDCs, District & UHCs | 57 | | |
| Training of Paramedics on PAL | 2 | Paramedics | 150 | | |
| Conduct orientation and training for field workers | 1 | GO- HI, AHI, HA, TLCA, NGO- Counselor, Senior service promoter and Service promoter | 3000 | | |
| Conduct training on TB care for Community Health Care Provider | 1 | Community Health Care Provider (CHCP) | 5470 | | |
| Conduct orientation with private hospitals in Metro | 1 | Doctors of Private Hospitals | 249 | | |
| Orientation at Medical College & Hospital | 1 | Doctors from Medical college & Hospital | 150 | | |
| Ambulatory Management of MDR-TB | 1 | UH&FPO, MO, Consultant CDC, Field workers GO - NGO | 920 | | |
| Orientation of Graduate Private Practitioners | 1 | Private Practitioners | 555 | | |
| Orientation for community clinic management group | 1 | Members of community clinic management group | 102000 | | |
| Train and retrain HIV counselor and other staff to identify and refer TB suspects | 1 | HIV Counselors & other staff | 90 | | |
| Training on QuanTB and prepare stock status report | 3 | NTP Manager, NGO Partners | | | 18 21 |
| Basic Training for TB LMIS | 2 | NTP Manager, TLCA, NGO Staff | | | |
| TOT on e-TB Manager | 3 | NTP Managers, TLCA, Staff from NGO partners | | | 23 |
| Basic training on e-TB Manager | 2 | Government TLCA, Government Statistician and NGO TB staff from UHCs | | | 374 |

Table:17 Workshop and Meeting related to TB control-2014

| Subject | Duration (Days) | Participants Category | No. of participants by funding source | | |
|--|-----------------|--|---------------------------------------|-----|-------|
| | | | GFATM | GOB | USAID |
| Workshop with Professional Associations | 1 | Members of Professional Associations | 520 | | |
| Meeting to establish linkages between TB and HIV NGOs | 1 | Managers, Officers, NGO personals involved TB/HIV activities | 39 | | |
| Workshop with civil surgeons, chest consultants, MOs | 1 | civil surgeons, chest consultants, MOs | 68 | | |
| Workshop to revise TB/HIV guidelines | 1 | Managers, Officers, NGO personals involved TB/HIV activities | 14 | | |
| Advocacy workshops for trade union leaders | 1 | Trade Union Leaders | 90 | | |
| Conduct workshop with staff of military, port, railway hospitals and academic institutions | 1 | staff of military, port, railway hospitals and academic institutions | 330 | | |
| Six monthly coordination meeting | 1 | GO-NGO personals involved TB control program | 15 | | |

10. Collaborating Partners of NTP With Area of Collaboration

A number of nongovernmental organizations (NGOs) and institutes have been recognized as official partner of NTP. The relationship between NTP and most of these partner agencies is governed through a memorandum of understanding (MOU). Following are short profiles of partner agencies, listed in alphabetical order.

10.1 Ashar Alo Society (AAS):

Ashar Alo Society is a community based registered organization working for support, care and treatment, empowerment and greater involvement of people living with HIV/AIDS in Bangladesh. It started as a pioneer self help group with 10 PLHIV in 1998. In 2000, Ashar Alo Society was formally established as a formal entity of PLHIV under the umbrella of Advocacy Program, CCDB. In 2001 AAS got regional recognition, received fund from UNDP Regional HIV and Development program. Then Ashar Alo Society started working as the first independent organization of PLHIV in Bangladesh since 1st January 2002 with the assistance of FHI IMPACT.

Bangladesh is a low HIV prevalent country with high-risk situation. PLHIV is also facing different kind of stigma and discrimination. Besides care and treatment service, Ashar Alo Society (AAS) is involved in other activities such as: Voluntary Counseling and Testing (VCT), Help line services, Provide information and counseling for positive living, Impart training and Counseling for affected family members, Provide life skills training for PLHIV, Provide treatment for different Opportunistic infections (OIs), Antiretroviral therapy, TB screening & treatment, organize Social Day for sharing among positive members, arrange vocational training, advocacy, networking and various communication activities to remove stigma and discrimination.

AAS provides treatment, care & support to around seventeen hundreds PLHIV in Bangladesh through its service center in Dhaka, Chittagong and Sylhet and from these centers it covers almost whole Bangladesh. Total number of registered members (PLHIV) is 1726 till May 31, 2014. Of them in Dhaka: 816, Sylhet: 585 and Chittagong: 325, Total male: 1080, female: 542, children: 90 and TG (Hijra): 14.

Since 2005 AAS has Tripartite MoU with NTP and NASP about TB and HIV co infection management. AAS collects TB medicine and distribute to Dhaka, Sylhet, Chittagong, and other two organizations (CAAP & MAB) and collect report from them and after compiling the report send to NTP. AAS provides quarterly national data of TB and HIV co infection to NTP.

AAS also received funding from GFATM Round -8 since August 2010 to establish peripheral lab in Dhaka, Sylhet and Chittagong and ACSM activities with different NGOs in Dhaka and continuing GFATM Round 10 grant.

10.2 BRAC



In 1972, BRAC began its journey in Bangladesh with a vision of making the world free from all forms of exploitation and discrimination where everyone gets the opportunity to realize their potential. Over the years, the organization has evolved and grown, guided by the principles of innovation, integrity, inclusiveness, and effectiveness. BRAC is the Principal Recipient (PR) for TB grant leading the NGO consortium in Bangladesh. A Memorandum of Understanding (MoU) was signed between the Tuberculosis Control Program (NTP) and BRAC, in 1994 for rural areas and in 2001 for urban areas.

Under the stewardship of NTP, currently BRAC covers 297 sub-districts (upazilla) of 42 districts with a population of 93 million, including Chittagong hill tracts, 41 prisons, 31 academic institutions, 406 peripheral laboratories, 2 port authority hospitals, EPZ (Chittagong, Karnafully, Comilla) and 7 city corporations. BRAC started its TB control activity in 1984 with its innovative community based approach which is operated by the Shasthya Shebikas (SS).

Shasthya Shebikas play the pivotal role of connecting individuals with TB control services during household visits and health forums. Each shebika receives a basic training and a one-day refreshers training every month. During household visits, Shasthya Shebikas identify TB symptomatic and refer them to the Upazilla Health Complex or nearby BRAC laboratory services for sputum examination. To increase the accessibility of diagnostic facilities, outreach sputum collection centers have been established at the union level (a union is comprised of a few villages). Sputum samples are collected and smeared at the outreach centre. Individuals diagnosed as TB patients are given Directly Observed Treatment (DOT) by Shasthya Shebikas, usually at her house, under the guidance of the field level staff of BRAC and a government or BRAC medical officer.

BRAC focuses on community-level education and engagement through orientation programme, mass media campaign and community mobilization. ACSM activities are regular part of this TB project that make the community aware and reduce stigma regarding TB. The organization involve different stakeholders of the community like cured TB patients, local opinion and religious leaders, girls' guides and scouts, other NGO workers, village doctors, pharmacists, and graduate private practitioners to engage them in efforts to identify patients, ensure treatment adherence. BRAC is conducting different types of advocacy workshops, round-table discussions, conferences and talk shows on TV with policy makers, media personnel, implementers and civil society representatives to enhance awareness and knowledge about TB. Information on TB also disseminates through radio, TV and articles and report in both print and electronic media. Street drama and folk songs are organized in remote areas by local popular entertainment group. These activities have shown marked involvement and responses from the community members regarding TB control and have led to increased referral of presumptive and thereby better adherence to treatment.

BRAC is providing diagnostic support to poor presumptive specially smear negative, extra pulmonary, child TB and MDR-TB. Moreover nutritional support is given to MDR-TB and TB-HIV co-infected patients.

In addition to its original shasthya shebikas model, BRAC has forged partnerships with a variety of providers, industry partners, and other government authorities to create a portfolio of innovative strategies to provide referral networks and expanded access to vulnerable patients in diverse settings, and this has provided the programme a strong technical base. Currently, there are 42 NGOs participating as sub-recipients of PR-BRAC under the National TB Control Programme. (Annex-6)

10.3 Damien Foundation



Damien Foundation, a Belgian NGO has been active in Bangladesh since 1972. The organization was engaged primarily in leprosy elimination in 6 districts. Later on the organization included Tuberculosis in its agenda considering the disease burden and expanded its working area. The organization now covers 14 districts (111 upazilas) of which 13 districts (102 upazilas) are for combined TB and leprosy control. The organization has set up 150 combined TB-Leprosy centres including 5 in medical colleges and 1 in workplace (DEPZ). Besides, 3 daily & 7 intermittent centres are engaged in leprosy service only.

The organization also runs three own hospitals with a total 255 beds to guarantee quality services for complicated TB (including MDR TB) and leprosy patients. A total of 590 national staffs including 8 doctors are engaged with DF in providing service in Bangladesh. A total of 24,480 TB, including 230 MDR TB and 384 new leprosy cases were detected and treated by the organization during 2014. The organization conducts several operational researches which contribute in the national and international policy decision making. The shortest 9-month Bangladesh regimen for MDR TB, which is being tested now by many other countries, was developed by Damien Foundation Bangladesh.

Orientation of Women Group



Village Doctor Training



10.4 HEED Bangladesh

HEED's Background

HEED Bangladesh (Health, Education and Economic Development) is a non-profit, non-political and non-governmental organization (NGO) committed to participate and promote national development through upgrading the socio-economic condition of the disadvantaged and underprivileged people in the society. The organization, as a national non-governmental organization (NGO), was formed in 1974, by national Christian leaders and several western partner organizations in response to the post war needs in Bangladesh. Since 1974, HEED Bangladesh has been working in the fields of health, education, agriculture, aquaculture, livestock, forestry, environment & natural resource management, bio-diversity conservation, disaster management, socio-economic development of marginalized and under privileged people, micro finance, nutrition & Hygiene education, water and sanitation, HIV/AIDS, rural development, awareness raising, arsenic, women, street children, etc.

HEED's Mission

Ensure basic Health and Medicare services for the target (agreed) communities in need, within the specific operation locations, delivered through awareness rising, demand creation, institutional development, building of community capacity, linking with GO-NGO service delivery points.

HEED's Coverage

HEED Bangladesh is working at 120 Upazilas under 32 Districts with 132 offices. Sector wise projects and Programs with their main focus are given below:

For TB it is working on 24 Upazillas under Moulvibazar District

10.5 icddr,b



icddr,b is an international health research institution located in Dhaka, Bangladesh. With unique proximity to the health challenges of the developing world, both urban and rural, icddr,b provides cutting-edge research that is relevant, rigorously tested, and scalable in resource-limited settings. From discovery of oral rehydration solution to innovative methods for treating severe malnutrition, icddr,b's researchers have developed some of the most important health interventions of the past century. Its scientists, one of the largest multi-disciplinary cohorts in the developing world, collaborate with dozens of international academic, research, and development partners to develop and share knowledge about global lifesaving solutions.

The centre has established a comprehensive programme of research, with particular strengths in infectious disease and vaccinology, reproductive health, neonatal and child health, malnutrition and food security, and other areas. Its scientific workforce comprising of nearly 200 scientifically trained staff is organized into ten Centres focusing on key health issues.

Tuberculosis, an important health problem in Bangladesh remained a focused area of research in icddr,b. icddr,b respects and values all national guidelines and policies and maintains a very highly esteemed partnership with NTP.

The current research focus areas are: Improving TB situation in selected urban areas of Bangladesh, effect of nutrition education and micronutrient supplementation on the biochemical and immunological markers and quality of life of pulmonary TB patients, documentation of DOTS delivery strategies in selected urban clinics in Dhaka city, scaling up management of childhood tuberculosis in Bangladesh, strategies to increase TB case detection by addressing the inequities in TB service utilization and reducing delays in TB diagnosis in rural Bangladesh, scaling up screening, detection and management of tuberculosis in prisons of Bangladesh, feasibility, usefulness and cost effectiveness of GeneXpert in MDR-TB surveillance, pulmonary and extra-pulmonary case detection in selected regional and specialized hospitals, identification of risk factors of TB and its transmission, operational research-a sustainable social enterprise model for increased tuberculosis case detection and treatment in the private sector using mass screening, X-ray and GeneXpert MTB/RIF scale-up approach in Bangladesh, and surveillance of MDR and XDR Tuberculosis. icddr,b's Mycobacteriology Laboratories (BSL 2 and 3) have been used in a variety of programs and studies and also working as a key resource in diagnosis of TB in the private sector.

Additional activities (2014):

icddr,b has established enhanced case-finding activities under an innovative public private mix (PPM) initiative which also includes referral, follow-up and reporting of newly identified cases to the NTP from the private sector. In the private sector, a network of more than 1,000 physicians (general practitioners, medicine and chest specialists) has been established to identify and refer presumptive TB cases at three newly established TB screening centres to screen using true digital radiology integrated with CAD4TB and confirmation by GeneXpert. icddr,b has also initiated research activities to investigate the epidemiology of extra-pulmonary TB in some large hospitals of Dhaka. Another study to look into the external quality assurance of recently rolled out GeneXpert machines all over the country is also underway.

10.6 IOM



IOM Bangladesh Providing Migration Health Assessments since 2006

Since its inception in 1951, the International Organization for Migration (IOM) is the only inter-governmental organization with a mandate focussed exclusively on the field of migration. Committed to the principle of orderly and humane migration benefiting society IOM as "The Migration Agency", actively participates in the global debate on the social, economic and political implications of migration in the 21st century.

Bangladesh became a member state of IOM in 1990, following IOM's assistance to Bangladeshi migrants during the Persian Gulf crisis, where IOM repatriated around 63,000 migrant workers to Bangladesh.

Given the high volume of migration in Bangladesh, the health assessment service for migrants is one of the core services provided by IOM in the country. The service focuses on identifying and addressing conditions of public health concern in order to promote safe migration and mitigate the impact of the migrants' disease burden on national health or social services. The program also seeks to address the migrants' specific health needs in order to facilitate integration with the host community.

In Bangladesh, IOM's Migration Health Division (MHD) has been providing health assessment services for prospective migrants since 2005 to assist the United Kingdom Tuberculosis Detection Programme. To this end IOM has three Migration Health Assessment Clinics (MHACs), located in Dhaka, Chittagong, and Sylhet. The IOM clinics are managed by dedicated national and international staff, with high standards and inbuilt quality assurance and quality control system based on globally accepted guidelines. When necessary the clinics also benefit from technical support from Regional/ Headquarter level to maintain the programme integrity.

The services provided by the IOM Clinics include the diagnosis of TB cases through chest x-rays, sputum smears, and culture for AFB as well as the physical examination of the applicants.

IOM Clinics in Dhaka and Sylhet have been designated by the National Tuberculosis control Programme (NTP) as Directly Observed Treatment (DOT) centres in 2010 and 2012 respectively. This means that the clinics refer TB patients to their nearest NTP treatment centers in addition to providing direct treatment for some of the cases. Since 2005, IOM has provided health assessment to more than 200,000 beneficiaries, detected more than 223 TB cases and successfully treated 32 TB patients through the clinics.

Besides NTP approval, MHAC Dhaka has been designated by Centers for Disease Control (CDC), Global Health Australia, and the Regional Medical Office of Canadian High Commission as the only referral center in Bangladesh for TB laboratory workup, TB treatment and follow up and Chest specialist consultation service in Bangladesh. In addition, the IOM clinics are also working as an approved panel sites for the health assessment of Australia, Canada, New Zealand UK and the USA bound visa applicants.

IOM MHD Dhaka has also been working on the health promotion for migrants through a comprehensive rights-based approach, in line with WHO Assembly resolution 61.17 Health of Migrants. With a vision of "healthy migrants in healthy communities", IOM has responded to the specific health needs of migrants and their families throughout the migration cycle to address their health vulnerabilities arouse from a wide range of social determinants of health and to contribute towards the sustainable social and economic development of their origin and destination communities.

TB cases diagnosed and treated in IOM clinics in 2013 and 2014

| Year | 2013 | 2014 |
|--|------|------|
| TB Cases diagnosed | 23 | 26 |
| TB Cases (SM+/Culture +) registered with IOM for treatment (DOT) | 12 | 11 |
| Number of 'treatment completed' among the registered cases | 0 | - |
| Number of 'cured' among the registered cases | 12 | - |
| Treatment success rate | 100% | - |

10.7 LAMB Hospital

Lutheran Aid to Medicine in Bangladesh (LAMB) works to improve the health of the poor in North-west Bangladesh for a population of well over 5 million people. The main site is 2 km west of the town of Parbatipur, about 24 km east of the district city of Dinajpur.

LAMB was started in the early 1970s by missionaries of the World Mission Prayer League who saw the absence of skilled medical care in the area. Initially LAMB provided mobile clinics and healthcare teaching. LAMB has grown to include;

- A 150 bed capacity general hospital fully equipped with modern diagnostic facilities and maternal and child health focused. Besides it runs integrated programs that includes obstetric fistula, disability program, club foot and cleft lip repair.
- Nursing Institute, where government approved Diploma in Nursing Science and Midwifery course is offered.
- Community Health and Development Program working in Dinajpur, Rangpur and Nilphamari districts in the health field focusing mother and child. The major activities include; Adolescent Reproductive Health, TB Control Program, Disability services, Disaster Risk Reduction, Community Based Organization development, Women And Their Children's Health (WATCH), Reliable Health Services(RHS), Non Communicable Disease(NCD), Women's Healthcare through Community Mobilization(WHCM), Community Managed Health Care (CMHC), Reliable Reproductive Health Service (RRHS). Working in collaboration with Bangladesh Government and PLAN Bangladesh.
- A large health focused Training Center with residential accommodation for trainees offer courses for different levels of community health workers, health volunteers, community midwives, nurses, paramedics from LAMB and other national and international organizations.
- LAMB English-Medium School where are taught by experienced teachers - national and expatriate. They follow the English National Curriculum. O-levels are certified by Cambridge International Examinations through the British Council. The school has a multicultural environment, thus both national and foreign students broaden their understanding and skills, learning from each other.
- MIS-R collects and processes data from the hospital and community areas for research purposes, and for provision of information to management, government and donors.

LAMB TB Control Program is working in 4 Upazillas, Parbatipur (one pourasova & one union), Chirirbandar and Khansama upazilla under Dinajpur district and Saidpur upazilla under Nilphamari districts covering approximately 788,529 people.

10.8 LEPROA Bangladesh

Leprosy Bangladesh is an UK based medical development organization began its activities in Bangladesh in year 2000, and works directly with the Government Health department through Upazila Health Complexes in four districts; Sirajgonj, Pabna, Bogra and Natore. The main objectives of the program are Control Tuberculosis, and eliminate Leprosy.

Leprosy Bangladesh is covering 7691463 populations for TB control program in three districts (Sirajgonj, Pabna, and Natore) and funding support is mainly from GFATM Round 10 with additional support also from USAID TB CARE II and LEPROA Health in Action UK. Government health department of Bangladesh provides logistics support such as anti-TB medicine and laboratory reagents.

10.9 NATAB

National Anti-tuberculosis Association of Bangladesh (NATAB) oldest of the TB organizations that was established in 1948 in Sylhet as an extension of the Assam Bengal TB Association of British India. During Pakistan era it was East Pakistan TB Association. NATAB primarily provided support for TB patients when TB services were non-existent in the then East Pakistan. Under the ever changing demands of times, NATAB took the present day identity of a major TB organization.

NATAB was the constituent member of The Union (International Union against TB and Lung Disease). In 2010 NATAB was elected as the Chairman of south East Asian Region of The Union. NATAB continued and maintained this honorable position with utmost commitment and sincere service till 2014.

To execute and conduct the field level activities nationwide, at national level NATAB has one (1) central executive committee, sixty four (64) district committees and thus thousands of volunteers from all walks of socio-economic strata and civil society groups that makes the base of NATAB.

In 2004, NATAB signed the memorandum of understanding with the Ministry of Health and Family Welfare and BRAC and became a partner of the National TB Control program funded by GFATM. Since then, NATAB has been working as a civil society advocacy agency to identify different groups by vocation, profession, religion, ethnicity and other possible classification and to turn the variations into strength.

Each quarter, NATAB organizes district level advocacy meetings in all 64 districts of the country with civil society members. At the same time, NATAB also organizes upazila (sub-district) level advocacy meetings in 64 upazilas. NATAB celebrated the World TB Day 2014 with NTP & partner NGOs at central level. At peripheral level, in 54 districts NATAB's concerned district committee celebrated this day through colorful rallies, discussions, meetings etc. with the help of project field staffs, and local govt. health sector staffs.

Since 2005, NATAB has been conducting "Annual Conference on TB" that has become a very revered event for the TB workers where specialists, general physicians, health workers, NATAB volunteers and media persons engage in the mutual learning process in the daylong event. The last such annual conference was held on 14 March, 2013. In 2014, "The 2nd Conference of The Union South-East Asia Region (SEAR 2014)" was organized by NATAB and successfully completed at the Hotel Pan Pacific Sonargaon Dhaka, Bangladesh. The conference duration was 9 - 12 March, 2014.

ACSM activities of NATAB in the year 2014 (January - December) :At a glance

- 7634 participants were oriented and aware through 256 District Advocacy Meetings at District Level.
- 6374 participants were oriented and aware through 256 Upazila Advocacy Meetings at Sub- district Level.
- 1375 civil society members were covered in 25 Advocacy Workshops at divisional level.
- The 2nd Conference of The Union South-East Asia Region (SEAR 2014) was attended by 556 delegates from 12 countries.
- One journal "FIGHT TB 2014" was published.
- World TB Day 2014 was celebrated in 54 districts with a total of 6490 participants attending therein.

10.10 NGO Health Service Delivery Project (NHSDP)



The NGO Health Service Delivery Project is an USAID and DFID funded project implemented by Pathfinder International in Bangladesh. The NHSDP supports the delivery of primary health care by providing Essential Service Package (ESP) through nationwide 'Smiling Sun' or 'Surjer Hashi' (SH) network of 26 national NGOs, 330 static clinics, 9550 satellite clinics and 6666 community service providers (CSPs). NHSDP has approximately 22.2 million service contacts, in 64 districts of Bangladesh through SH NGO network. The project is designed to complement the Government of Bangladesh's (GOB) efforts to maximize the reach to poor and underserved populations in the country with quality health services at low or no cost.

NHSDP contributes to National Tuberculosis Control Program through Surjer Hashi clinics in Dhaka, Chittagong, Rajshahi and Khulna City Corporations. Eight SH NGOs- Bamaneh, CWFD, PSTC, Swanirvar Bangladesh, Image, Nishkriti, PKS and Tilottoma implements DOTS through 58 SH clinics, 33 of which have microscopy centers and one with External Quality Assurance (EQA) services.

In addition to diagnosing TB and MDR TB cases and ensuring treatment under directly observed treatment, SH network NGOs organize Advocacy, Communication and Social Mobilization (ACSM) activities, implements DOTS in workplace and industries, engage graduate and non graduate private practitioners for referral and diagnosis and treatment, work with cured TB patients and empower community by engaging community, opinion and religious leaders, teachers and HIV/AIDS workers. To Intensifying smear negative, child TB and EPTB cases and improving quality DOTS services, NGOs also provide social support to TB patients and their families.

10.11 PIME Sisters

In 1986, the catholic congregation of the PIME Sisters began their activities for the prevention and cure of Hansen Disease. In the year 2001, when NTP started DOTS implementation in Khulna City Corporation, the PIME Sisters' leprosy network was made available for TB control activities also. The PIME Sisters run twelve DOTS centres in Khulna city including the jail. They have a small referral hospital for both TB and leprosy and in this hospital a there is a central laboratory. They conduct field activities in slum areas as well as other parts of Khulna city.

They are regularly conducting advocacy meetings for private medical practitioners, pharmacist, religious leaders, teacher and other community leaders in slum, bazar etc.

10.12 Rangpur-Dinajpur Rural Service

Rangpur-Dinajpur Rural Service (RDRS) Bangladesh, a leading development NGO, has been working in the northwest region of Bangladesh for over three decades. It was formally established in 1972 as the Bangladesh field Programme of Lutheran World Federation/Department for World Service (LWF/DWS), Geneva to provide relief, rehabilitation and development assistance to the poor. At the same time, there was a shift in the focus of RDRS development endeavors so that community-level organization and groups, women, and micro-finance and skills training for livelihood activities gained in importance. The RDRS Covers 57 Upazilas (sub-district) of 11 Districts (Panchagarh, Thakurgaon, Dinajpur, Nilphamari, Rangpur, Gaibandha, Lalmonirhat, Kurigram & Jamalpur-are in the north-west & Hobiganj and Moulvibazar in the north-east).

The importance of proper nutrition, clean water, latrines and family planning are among the issues we discuss with our clients and among the wider community to raise living standards. In the Community Health Programme, we also provide preventive and curative care to supplements health, leprosy and TB, STD and HIV/AIDS and eye care.

From 1996, RDRS as a collaborating partner of the National Tuberculosis and Leprosy Control program took the responsibility for the care of TB patients in 5 Upazilas of Lalmonirhat and 9 Upazilas of Kurigram District through 47 clinics.

10.13 Salvation Army

The Salvation Army Urban Health and Development Project is a part of the organization- integrated Community Health Development Project, Mirpur. In 1972 a mobile Medical Relief Team was established. The development programme was added to the health programmes in 1980. Agreements were signed with The Leprosy Mission in 1992 and in 2001 to conduct leprosy activities. The Salvation Army was a signatory of the MoU between NTP and the Leprosy-TB Coordinating Committee and was made responsible for supporting TB control activities in Mirpur, Dhaka. The project area is mostly inhabited by Bihari (Urdu speaking) refugees living in unhygienic slum conditions with scarcity of water supply. The Salvation Army's integrated approach of services delivery along with leprosy and TB control is striving hard to uplift the quality of life to the people.

10.14 SIAPS



Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program implemented by Management Sciences for Health (MSH); funded by USAID supports to the MOHFW, DGFP, DGDA and DGHS including other key entities to strengthen the ability of policy makers, health care providers and institutions to improve commodity management, with an emphasis on governance, procurement, institutional capacity building, management information system and other system strengthening initiatives, aimed at ensuring continuous availability of commodities required to support healthcare delivery and the timely availability of reliable data to support evidence based decision making.

SIAPS have been mandated by USAID under a cooperative agreement to work with NTP to strengthen pharmaceutical management system of Tuberculosis. The agreement has been started since 23 September, 2011 and will be ended on 22 September, 2016. Regarding e-TB Manager, NTP has also signed an MOU with MSH previously. SIAPS is working with NTP with the following two main objectives-

1. Improve TB program performance through strengthening management information systems in collaboration with WHO, URC and other key stakeholders.
2. Provide support to the TB program to develop a comprehensive supply chain management system to support, forecasting, quantification, supply planning, procurement management and distribution of TB commodities.

Activities of SIAPS in 2014

| |
|---|
| Training on QuanTB and prepare stock status report |
| Basic Training for TB LMIS |
| TOT Training on e-TB Manager |
| Basic e-TB Manager Training |
| Workshop on POM of MOHFW and e-TB Manager and SOP for TB supply Chain Management. (Divisional and District Health Authorities from all 7 Divisions) |
| Workshop on routine reporting requirements of DR TB for NTP |
| Participated and Sponsored in the 2nd South-East Asia Region Conference (SEAR 2014) at Hotel Pan Pacific (Symposium) |

10.15 TB CARE II Bangladesh



TB CARE II Bangladesh Project Advancing Global Health Initiative (GHI) in Bangladesh

TB CARE II Bangladesh project seeks to advance the goals of the USAID Global Health Initiative (GHI) strategy by supporting Government of Bangladesh (GOB) objective to prevent and control TB. Aligned with the GOB's TB strategic plan and the USAID/Bangladesh TB strategy, the project aims to reduce mortality and morbidity due to TB by improving universal access to TB diagnosis and treatment, providing high quality DOTS through all levels, and increasing access to prevention, diagnosis and treatment of Multi Drug Resistant TB (MDR TB). The TB CARE II Bangladesh project is implemented by University Research Co., LLC (URC), in partnership with Partners in Health, World Health Organization, Canadian Lung Association, Euro Health Group, and Clinical and Laboratory Standards Institute.

Strengthening health system is the strategic focus of the TB CARE II Bangladesh project. The project has made significant progress in increasing access to diagnosis and treatment of MDR TB in the last two years. In 2012, the project introduced GeneXpert MTBRIF which has now become the first line diagnostic tool for detection of MTB RIF cases. The tests is also used for detection of smear negative cases. Over the last two, the GeneXpert test has enabled NTP to more than double the detection of MTBRIF and significantly increased detection of smear negative cases. The project has also initiated an m-Reporting system that enables immediate communication of the test results through mobile phone text messages.

The community based model introduced by the project for treatment of MDR-TB patients was a major breakthrough in increasing access to treatment. MDR TB patients are now transferred to community for treatment after hospital stay for about 2 months. The treatment has been decentralized with upazila-based Outpatient DR TB Teams trained to provide clinical support to patients being treated at home.

The strategy has eliminated the backlog of patients waiting for enrollment to treatment and significantly reduced delay in treatment initiation. m-Health and m-DRDoc are two other new innovative ICT-based interventions started by the project. Most of the cPMDT patients are enrolled in to mHealth which allows real time monitoring of daily DOT administered by the DR TB DOT providers. The recently started m-DRDoc allows remote consultation of MDR-TB patients with physicians at chest disease hospitals.

Through local NGOs, the project supports a grants program aims at complementing the Global Fund supported community TB activities to increase access to and quality of TB services at the community level. Currently, the project has been supporting 13 local NGOs which have contributed to detection of thousands of additional TB cases, mostly smear negative and EPTB. The project also developed a partnership with the Diabetic Association of Bangladesh which has resulted in to manifold increase in detection of TB among diabetes patients through BIRDEM hospital and other affiliated outdoor diabetic facilities at the district level.

10.16 The Leprosy Mission Bangladesh

The Leprosy Mission Bangladesh (TLMB) is part of The Leprosy Mission International, a Christian service organization founded in 1874. TLM started working in Bangladesh in June 1991 initially for leprosy and since 1994 also for TB. TLM is supporting to the National Leprosy Elimination Programme through working in Dhaka, Chittagong, Chittagong Hill Tracts, Gaibandha, Jaypurhat, Rangpur, Nilphamari, Thakurgaon and Panchagarh districts. TLM is supporting NTP in TB control implementation in ten upazilas of Thakurgaon and Panchagarh districts. This international NGO is strengthening the health system by integrating its Leprosy & TB control services in Government Health facilities. In addition, TLM foster networking between the Government service providers and community-based supporters including private practitioners, village doctors, local elite, NGO workers, non-graduated private practitioners and cured TB patient.

10.17 Urban Primary Health Care Service Delivery Project (UPHCSDP)



Urban Primary Health Care Services Delivery Project supported by Development Partners and executed by the Local Government Division of the Ministry of Local Government, Rural Development and Co-Operatives is implemented by the Health Departments of the six City corporations (CCs) and five municipalities. Urban PHC system comprises both Primary Health Care Centre (PHCC) and Comprehensive Reproductive Health Care Center (CRHCC). UPHCSDP is a new innovation of providing basic health care services to urban population. Project delivers a package of preventive, primitive, and curative health care services to the poor in all the six city corporations of Dhakas, Chittagong, Khulna, Rajshahi, Sylhet, Barisal and five municipalities of Gopalganj, Comilla, Sirajgonj, Kushtia, Tongi and Gazipur. The project continues to contract out PHC services to nongovernmental organizations (NGOs) through partnership agreements and on average yearly 1 core clients receive services

The specific project objectives are to improve: (i) access to and use of urban PHC services in the project area, with a particular focus on extending provision to the poorest, (ii) the quality of urban PHC services in the project area, and (iii) the cost effectiveness, efficiency, and institutional and financial sustainability of PHC to meet the needs of the urban poor. The overall goal is

- ▶ To improve the health status of the urban population, especially the poor, through improved access to and utilization of efficient, effective and sustainable Primary Health Care (PHC) services.
- ▶ Under the project, at least 30% of each service will be provided free to the poor.

TB Control activities

As an essential part of ESP service under communicable disease TB Control services started in UPHCP are in 2004 with support from own resources. From 2005 GFATM 3rd round, then 5th round & 8th round, lastly 10th round supported Human resource supply, also drug, training logistics in addition to large GOB support through other staff & information. Presently UPHCSDP has been implementing in 13 area of urban city like Dhaka, Rajshahi, and Khulna through 13 NGO's. The NGO's are Population Services and Training Centre (PSTC), Khulna Mukti Seba Sangastha (KMSS), Association for Prevention of Septic Abortion of Bangladesh (BAPSA), Nari Maitree, Unity Through Population Services (UTPS), Dhaka Ahsania Mission (DAM) and Resources Integration Centre (RIC) cover 3.4 Million population.

10.18 The World Health Organization (WHO)



WHO collaborative activities for TB Control Programme in 2014

WHO is providing support to increase efforts for detection of TB cases; diagnostics and laboratory strengthening; maintain high cure rates; improve the quality of the control services and strengthen major critical components of the service delivery system; address the issues of drug resistance; setting up norms and standards; assisting to take evidenced based policy decisions; mobilizing partnerships for TB control; and supporting research, monitoring and development.

Major activities performed in 2014 with the technical support of WHO were:

- I. **Epidemiological and impact analysis:** An epidemiological and impact analysis was carried out from 01-15 March 2014 to assess current national TB surveillance and vital registration systems with particular attention to their capacity to measure the level of and trends in TB disease burden. A comprehensive report was submitted to NTP addressing a) whether TB control interventions have contributed to changing the course of the TB epidemic; b) whether the burden of disease is different in specific geographical areas, subpopulations or sectors that warrant increased attention; and c) investments needed to improve evidence about trends in disease burden in future.
- II. **Joint Monitoring mission (JMM):** NTP, with support of WHO, has conducted the sixth National TB Programme Review from 30 March to 10 April 2014, which is routinely done in every three years. However, the 6th JMM was a pre-requisite for the development of "concept note" under GFATM's NFM. A detailed report with challenges as well as recommendations to face those challenges was prepared.
- III. **Revision of National Strategic Plan (NSP):** The NSP was revised covering the period 2015-2020 in line with WHO's post 2015 "End TB Strategy" with costing by an external technical assistant through WHO.
- IV. **Development and submission of a concept note under NFM for 2015-17:** NTP developed a concept note for the period of July 2015 to December 2017 with external technical support from WHO that aims at addressing the problems that Bangladesh is currently facing, including the cost as per revised NSP 2015-2020. NTP successfully submitted the concept note on 12 June 2014.
- V. **National Tuberculosis Prevalence Survey, Bangladesh 2014-15:** Bangladesh decided to conduct a national TB prevalence survey to determine the prevalence of bacteriologically-confirmed pulmonary TB caused by *Mycobacterium tuberculosis* (TB bacilli) and ways to enhance/improve TB control. The recommended international standard method is followed. The Institute of Epidemiology, Disease Control and Research (IEDCR), in collaboration with the National Tuberculosis Reference Laboratory (NTRL) and with technical support from WHO, the Supranational Reference Laboratory (SRL), Antwerp, Belgium, CDC Atlanta and RIT Japan agreed to carry out the survey.

Major accomplishments during the reporting period: a) Protocol finalized and draft SOP developed with technical support from WHO, RIT Japan and CDC Atlanta; b) exchange visit to Indonesia; c) technical service agreement (TSA) approved; d) recording and reporting forms and cards developed; e) Procurement of major equipment completed; f) Table top exercise conducted to incorporate feedback into the SOPs; g) recruitment of staff completed and have been appointed; and h) field testing conducted using all survey procedures before piloting.

VI. Development/Revision and printing of Guidelines and Policy documents:

The following guidelines were printed after revision and endorsement by NTP:

- a) Revised national guidelines and operational manual for TB control (5th edition)
- b) National guideline for Programmatic Management of Drug Resistant TB (PMDT) (2nd edition)
- c) Expansion Plan for Programmatic Management of Drug Resistant TB
- d) TB Infection Control (TB-IC) guidelines for field level health care workers in Bangla
- e) Report of the 6th Joint Monitoring mission 30 March -10 April 2014

VII. External technical assistance to support NTP on different components of Stop TB Strategy:

- a) **Global Drug Facility (GDF) Monitoring Mission:** The purposes of GDF mission was medicine data review, verification and quantification of FLMS and SLMS.
Deliverable: The mission report was submitted with recommendations on inventory management, bar-code labelling, e-TB manager and Quan-TB, quantification and forecasting for 2014-15, coordination with partners and GDF and procurement & supply management system.
- b) **Preparation for the finalization of the protocol for shorter MDR-TB regimen:** Technical support provided to NTP for the finalization of the draft protocol for shorter regimen for the management of drug resistant TB and completion of required documents needed for implementation and endorsement.
Deliverable: The draft document has been submitted to NTP for endorsement.
- c) **Regional Green Light Committee (rGLC) mission:** The sixth rGLC monitoring mission was held from 23-27 November 2014 by MO GTB, WHO HQ
Deliverable: the mission concentrated on the outcome of the recent NFM concept note application, the transition from TBCARE II to Challenge TB in 2015, and their implications on the planned expansion of PMDT.

VIII. Capacity Building:

- a) **Scale up e-TB Manager for electronic registration of TB Data:** WHO supported NTP to pilot TB data registration of individual patients in six selected sites using "e-TB Manager" software. WHO provided technical support to field level participants for 15 days on basic computer skills to run the software.
- b) **TOT for PMDT:** WHO conducted TOT to support the implementation and scaling up of community based PMDT programme, following the revised guidelines.
- c) **"Orientation of childhood TB for paediatricians and senior level doctors in different medical colleges":** WHO provided resource persons to a one-day orientation on childhood TB organized by TB CAREII for senior level doctors of different medical colleges.
- d) **PSM:** WHO recruited a short-term international staff to strengthen the PSM system to and develop the management capacity of the staff of the PSM unit of NTP.
- e) **TB laboratory services:** WHO provided technical support for the development of a manual on laboratory biosafety and organization of laboratory biosafety training, external quality assessment (EQA) workshops and training on LED microscopy.
- f) **TB/HIV:** WHO provided technical support to the organization of a stakeholder meeting on the revision of the existing TB/HIV guideline and to establishment of effective referral mechanisms for management of TB-HIV co-infection.

IX. International trainings/workshops/meetings: WHO supported the participation of Government and partner NGOs in different international trainings/workshops/meetings to improve the management capacity for the implementation of TB control activities at country level

X. Monitoring and Evaluation:

- a) **Monitoring implementation of TB activities in the field:** WHO technical staff regularly monitored field activities and provided technical support and on-site training during those field visits to ensure quality of services in different areas of the Stop TB strategy
TB data and Report: WHO supported the collection, validation and finalization of data to be submitted to donors and supported the preparation and finalization of different donor reports, annual report at national, global and regional level.

| SL. | District | Upazila | | | | | | Metro | | | | | | CDC | | | | | | Total | | | | Grand Total | P ₁ Population | New PBC CNR-05 per 1,00,000 pop. | All Forms CNR-06 per 1,00,000 pop. | | | | | | |
|-----|----------|---------------------------------------|----------|--------------------------------|----------|------------------|----------|---------------------------------------|----------|--------------------------------|----------|------------------|----------|---------------------------------------|----------|--------------------------------|----------|------------------|----------|---------------------------------------|----------|--------------------------------|----------|-------------|---------------------------|----------------------------------|------------------------------------|------------------|----------|-----------------|----------|-----------------|----------|
| | | Pulmonary Bacteriologically Confirmed | | Pulmonary Clinically Diagnosed | | All Subtreatment | | Pulmonary Bacteriologically Confirmed | | Pulmonary Clinically Diagnosed | | All Subtreatment | | Pulmonary Bacteriologically Confirmed | | Pulmonary Clinically Diagnosed | | All Subtreatment | | Pulmonary Bacteriologically Confirmed | | Pulmonary Clinically Diagnosed | | | | | | All Subtreatment | | | | | |
| | | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | New/Treatment | Relapses | | | | | New/Treatment | Relapses | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | History Unknown | Relapses | History Unknown | Relapses |
| 1 | Barisal | 844 | 5 | 236 | 4 | 143 | 1 | 36 | | | | | | | 185 | 6 | 235 | 4 | 143 | 1 | 24 | 1259 | 941913 | 80.71 | 131.12 | | | | | | | | |
| 2 | Barisal | 953 | 17 | 536 | 3 | 397 | 3 | 66 | 160 | 1 | 11 | 11 | 11 | 2140 | 20 | 607 | 3 | 543 | 4 | 78 | 3399 | 2705331 | 80.14 | 131.67 | | | | | | | | | |
| 3 | Barisal | 739 | 23 | 329 | 15 | 227 | 1 | 23 | | | | | | 1706 | 25 | 549 | 15 | 230 | 1 | 23 | 2509 | 1860703 | 94.65 | 133.31 | | | | | | | | | |
| 4 | Barisal | 647 | 4 | 153 | 4 | 125 | 2 | 7 | | | | | | 647 | 2 | 155 | 4 | 125 | 2 | 7 | 944 | 276334 | 91.60 | 131.65 | | | | | | | | | |
| 5 | Barisal | 346 | 17 | 633 | 5 | 255 | 2 | 35 | | | | | | 17 | 1 | 3 | 6 | 14 | 0 | 0 | 2366 | 1519361 | 84.14 | 141.63 | | | | | | | | | |
| 6 | Barisal | 1214 | 19 | 320 | 5 | 188 | 1 | 23 | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1998 | 1151910 | 89.30 | 132.62 | | | | | | | | | |
| 7 | Barisal | 292 | 3 | 55 | 1 | 44 | 0 | 13 | | | | | | 202 | 3 | 55 | 1 | 44 | 0 | 13 | 408 | 627395 | 66.76 | 92.31 | | | | | | | | | |
| 8 | Barisal | 2311 | 27 | 1035 | 26 | 469 | 8 | 122 | | | | | | 4 | 0 | 3 | 0 | 6 | 0 | 0 | 2315 | 3116365 | 74.54 | 131.62 | | | | | | | | | |
| 9 | Barisal | 3065 | 27 | 865 | 0 | 288 | 0 | 62 | | | | | | 27 | 1 | 23 | 1 | 13 | 0 | 1 | 2096 | 2580254 | 81.87 | 131.22 | | | | | | | | | |
| 10 | Barisal | 3594 | 55 | 867 | 39 | 1105 | 11 | 177 | 2318 | 177 | 1484 | 53 | 1356 | 37 | 228 | 242 | 2340 | 92 | 2613 | 67 | 1266 | 5323035 | 76.35 | 145.27 | | | | | | | | | |
| 11 | Barisal | 1996 | 7 | 2329 | 17 | 1206 | 8 | 180 | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1996 | 3575394 | 71.63 | 133.25 | | | | | | | | | |
| 12 | Barisal | 754 | 59 | 257 | 25 | 366 | 3 | 109 | | | | | | 27 | 2 | 21 | 0 | 35 | 0 | 6 | 1780 | 41 | 638 | 25 | 359 | 3 | 15 | 5222 | 257176 | 69.27 | 121.64 | | |
| 13 | Barisal | 111 | 1 | 345 | 6 | 216 | 4 | 25 | | | | | | 3 | 0 | 3 | 0 | 4 | 0 | 0 | 1194 | 11 | 533 | 6 | 230 | 4 | 25 | 1677 | 1568726 | 75.11 | 112.65 | | |
| 14 | Barisal | 672 | 5 | 213 | 2 | 46 | 0 | 34 | | | | | | 612 | 5 | 213 | 2 | 49 | 0 | 34 | 975 | 666781 | 91.46 | 131.63 | | | | | | | | | |
| 15 | Barisal | 353 | 15 | 479 | 5 | 273 | 0 | 61 | | | | | | 353 | 16 | 479 | 5 | 273 | 0 | 61 | 2387 | 1873380 | 83.63 | 123.15 | | | | | | | | | |
| 16 | Barisal | 2386 | 43 | 911 | 35 | 464 | 4 | 75 | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2386 | 40 | 711 | 35 | 464 | 4 | 75 | 3515 | 3471255 | 66.90 | 143.15 | | |
| 17 | Barisal | 444 | 5 | 114 | 0 | 72 | 1 | 29 | | | | | | 11 | 0 | 13 | 0 | 10 | 0 | 0 | 465 | 6 | 127 | 0 | 83 | 1 | 26 | 200 | 693301 | 69.97 | 143.15 | | |
| 18 | Barisal | 2694 | 369 | 7817 | 139 | 4672 | 30 | 892 | 2318 | 177 | 1484 | 53 | 1356 | 37 | 228 | 242 | 2340 | 92 | 2613 | 67 | 1266 | 5323035 | 76.35 | 145.27 | | | | | | | | | |
| 19 | Barisal | 273 | 55 | 855 | 3 | 145 | 3 | 145 | 594 | 595 | 351 | 107 | 590 | 763 | 515 | 13 | 0 | 4 | 0 | 0 | 1 | 562 | 156 | 442 | 191 | 6910 | 176 | 23 | 2163 | 13194026 | 63.06 | 151.65 | |
| 20 | Barisal | 483 | 32 | 302 | 1 | 358 | 1 | 37 | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 483 | 32 | 302 | 1 | 358 | 1 | 37 | 1162 | 2038446 | 23.94 | 53.27 | | |
| 21 | Barisal | 315 | 15 | 153 | 0 | 163 | 0 | 28 | | | | | | 13 | 1 | 6 | 0 | 14 | 0 | 0 | 300 | 17 | 139 | 0 | 177 | 0 | 28 | 771 | 1226314 | 31.95 | 67.65 | | |
| 22 | Barisal | 454 | 5 | 233 | 2 | 454 | 0 | 136 | | | | | | 108 | 2 | 27 | 0 | 51 | 0 | 19 | 1962 | 43 | 250 | 2 | 435 | 0 | 55 | 2547 | 2444339 | 63.89 | 97.63 | | |
| 23 | Barisal | 838 | 112 | 690 | 2 | 76 | 0 | 229 | | | | | | 36 | 5 | 31 | 0 | 56 | 0 | 8 | 1894 | 117 | 722 | 2 | 817 | 0 | 307 | 3519 | 3126079 | 60.63 | 112.21 | | |
| 24 | Barisal | 471 | 3 | 133 | 0 | 176 | 1 | 40 | | | | | | 28 | 1 | 0 | 0 | 16 | 0 | 0 | 420 | 9 | 135 | 0 | 192 | 1 | 46 | 566 | 1210392 | 35.21 | 62.67 | | |
| 25 | Barisal | 335 | 23 | 21 | 22 | 223 | 1 | 18 | | | | | | 1335 | 20 | 721 | 22 | 333 | 1 | 8 | 2440 | 1482453 | 90.05 | 143.15 | | | | | | | | | |
| 26 | Barisal | 215 | 19 | 394 | 10 | 443 | 1 | 46 | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1215 | 19 | 364 | 10 | 443 | 1 | 46 | 2537 | 1552657 | 76.24 | 146.31 | | |
| 27 | Barisal | 1386 | 129 | 853 | 78 | 1980 | 18 | 397 | | | | | | 63 | 2 | 34 | 0 | 47 | 1 | 0 | 3493 | 111 | 668 | 38 | 1445 | 9 | 391 | 5427 | 5521796 | 82.36 | 149.12 | | |
| 28 | Barisal | 928 | 72 | 1500 | 16 | 172 | 3 | 213 | | | | | | 1028 | 72 | 1500 | 16 | 172 | 3 | 213 | 4913 | 3306020 | 57.29 | 135.52 | | | | | | | | | |
| 29 | Barisal | 968 | 53 | 1572 | 23 | 302 | 1 | 102 | | | | | | 1968 | 63 | 1572 | 23 | 302 | 1 | 102 | 4261 | 2427985 | 81.05 | 133.65 | | | | | | | | | |
| 30 | Barisal | 476 | 74 | 493 | 13 | 54 | 2 | 271 | | | | | | 1416 | 74 | 494 | 13 | 54 | 2 | 271 | 2705 | 2397001 | 59.07 | 141.64 | | | | | | | | | |
| 31 | Barisal | 235 | 14 | 104 | 1 | 130 | 2 | 57 | | | | | | 256 | 14 | 104 | 1 | 130 | 2 | 57 | 569 | 1124485 | 24.49 | 51.15 | | | | | | | | | |
| 32 | Barisal | 463 | 19 | 157 | 0 | 290 | 0 | 49 | | | | | | 405 | 19 | 157 | 0 | 290 | 0 | 49 | 669 | 122572 | 33.08 | 67.63 | | | | | | | | | |
| 33 | Barisal | 1054 | 35 | 632 | 50 | 400 | 8 | 131 | | | | | | 1094 | 36 | 632 | 50 | 400 | 8 | 131 | 2523 | 1457827 | 76.09 | 153.63 | | | | | | | | | |
| 34 | Barisal | 623 | 53 | 470 | 2 | 755 | 2 | 201 | | | | | | 88 | 5 | 27 | 0 | 30 | 0 | 9 | 1721 | 55 | 406 | 2 | 613 | 2 | 74 | 3207 | 3851691 | 44.88 | 87.15 | | |
| 35 | Barisal | 2495 | 839 | 10816 | 235 | 16164 | 50 | 2146 | 5965 | 635 | 3313 | 107 | 5490 | 103 | 526 | 454 | 19 | 184 | 6 | 423 | 1 | 37 | 30875 | 1963 | 14963 | 336 | 16277 | 154 | 209 | 68717 | 52151706 | 55.86 | 122.13 |

| SL | District | Upazila | | | | | | Metro | | | | | | CDC | | | | | | Total | | | | | | New PSC CNIs as per 1,00,000 pop. | All Forms CNIs as per 1,00,000 pop. | | | | | | | | | | | | |
|--------------|------------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|-----------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--------|--------|----|-----|-------|------------|-------|-------|
| | | Primary Bacteriologically Confirmed | | | Extra-Morality | | | Primary Clinically Diagnosed | | | Extra-Morality | | | Primary Bacteriologically Confirmed | | | Primary Clinically Diagnosed | | | Extra-Morality | | | Grand Total | | | | | | | | | | | | | | | | |
| | | Subpop | | | Subpop | | | Subpop | | | Subpop | | | Subpop | | | Subpop | | | Subpop | | | Subpop | | | | | | | | | | | | | | | | |
| | | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | | | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | New/ Treatment History Unknown | | | | | | | | |
| 35 | Sylhet | 1369 | 24 | 515 | 0 | 138 | 0 | 65 | | | | | | 12 | 1 | 13 | 0 | 10 | 0 | 1 | 141 | 25 | 545 | 5 | 788 | 0 | 20 | 2142 | 1,51,554 | 81.29 | 143.60 | | | | | | | | |
| 36 | Chandiga | 1064 | 14 | 171 | 2 | 172 | 3 | 5 | | | | | | 52 | 4 | 5 | 0 | 33 | 1 | 0 | 101 | 15 | 715 | 2 | 207 | 4 | 5 | 1573 | 1,71,395 | 83.77 | 128.26 | | | | | | | | |
| 37 | Barisal | 2802 | 17 | 545 | 9 | 225 | 1 | 15 | | | | | | 75 | 8 | 14 | 0 | 29 | 0 | 29 | 230 | 25 | 555 | 9 | 315 | 7 | 27 | 3220 | 2,97,771 | 73.35 | 108.93 | | | | | | | | |
| 38 | Barisal | 1596 | 8 | 571 | 1 | 222 | 0 | 71 | | | | | | 136 | 8 | | | | | | 136 | 8 | 571 | 1 | 224 | 0 | 27 | 2407 | 1,96,105 | 83.73 | 125.61 | | | | | | | | |
| 39 | Chittagong | 1659 | 10 | 464 | 1 | 236 | 1 | 25 | 437 | 19 | 136 | 2 | 152 | 2 | 15 | | | | | | | 138 | 25 | 540 | 3 | 355 | 3 | 36 | 3245 | 2,38,660 | 73.42 | 125.92 | | | | | | | |
| 40 | Coxila | 1094 | 19 | 765 | 8 | 415 | 0 | 22 | | | | | | 35 | 1 | 13 | 0 | 69 | 0 | 69 | 130 | 26 | 712 | 5 | 423 | 0 | 29 | 3112 | 2,90,719 | 83.85 | 147.35 | | | | | | | | |
| 41 | Magura | 717 | 2 | 132 | 0 | 95 | 0 | 5 | | | | | | 31 | 2 | 13 | 0 | 25 | 0 | 25 | 78 | 4 | 74 | 0 | 72 | 0 | 10 | 1025 | 86,993 | 75.87 | 103.05 | | | | | | | | |
| 42 | Meherpur | 591 | 1 | 251 | 7 | 111 | 1 | 3 | | | | | | 15 | 3 | 8 | 0 | 17 | 0 | 17 | 6 | 0 | 69 | 1 | 265 | 7 | 28 | 7 | 123 | 170,303 | 83.98 | 142.77 | | | | | | | |
| 43 | Narail | 621 | 10 | 342 | 8 | 89 | 0 | 24 | | | | | | | | | | | | | | 62 | 16 | 342 | 5 | 85 | 0 | 24 | 1054 | 75,663 | 81.35 | 141.22 | | | | | | | |
| 44 | Satkhira | 1640 | 6 | 864 | 0 | 210 | 0 | 10 | | | | | | 9 | 1 | 17 | 0 | 14 | 0 | 14 | 0 | 1 | 149 | 4 | 302 | 0 | 204 | 0 | 31 | 2113 | 2,70,853 | 73.44 | 139.03 | | | | | | |
| 45 | Shariatpur | 12323 | 111 | 4596 | 35 | 1979 | 5 | 279 | 437 | 19 | 136 | 2 | 320 | 2 | 13 | | | | | | | 216 | 17 | 76 | 0 | 186 | 1 | 6 | 13858 | 1,67,402 | 83.35 | 138.27 | | | | | | | |
| 46 | Shariatpur | 2071 | 32 | 756 | 3 | 1621 | 6 | 54 | | | | | | 47 | 3 | 13 | 0 | 12 | 1 | 12 | 4 | 292 | 34 | 744 | 4 | 1033 | 7 | 38 | 4321 | 3,66,070 | 83.15 | 130.72 | | | | | | | |
| 47 | Shariatpur | 889 | 9 | 463 | 1 | 273 | 3 | 19 | | | | | | | | | | | | | | 106 | 41 | 354 | 5 | 404 | 4 | 85 | 1029 | 2,77,009 | 83.19 | 137.50 | | | | | | | |
| 48 | Shariatpur | 1946 | 41 | 84 | 5 | 474 | 4 | 85 | | | | | | 55 | 1 | 1 | 0 | 24 | 0 | 24 | 0 | 1 | 183 | 15 | 42 | 0 | 303 | 7 | 9 | 1133 | 1,88,581 | 81.34 | 61.20 | | | | | | |
| 49 | Shariatpur | 730 | 14 | 41 | 0 | 279 | 1 | 5 | | | | | | 80 | 3 | 45 | 0 | 47 | 1 | 9 | 379 | 36 | 344 | 1 | 303 | 3 | 69 | 1164 | 1,78,951 | 82.35 | 62.57 | | | | | | | | |
| 50 | Shariatpur | 1284 | 38 | 163 | 2 | 462 | 5 | 23 | | | | | | 62 | 5 | 24 | 0 | 68 | 1 | 6 | 157 | 43 | 48 | 2 | 530 | 6 | 32 | 2169 | 2,70,023 | 83.1 | 77.8 | | | | | | | | |
| 51 | Shariatpur | 602 | 21 | 151 | 5 | 425 | 3 | 45 | 256 | 7 | 17 | 2 | 155 | 2 | 31 | | | | | | | 138 | 7 | 25 | 0 | 34 | 1 | 2 | 237 | 43 | 267 | 7 | 728 | 5 | 26 | 1029 | 2,80,866 | 83.35 | 88.25 |
| 52 | Shariatpur | 2253 | 36 | 151 | 0 | 524 | 3 | 11 | | | | | | 138 | 7 | 25 | 0 | 34 | 1 | 2 | 237 | 43 | 267 | 7 | 728 | 5 | 26 | 1029 | 2,80,866 | 83.35 | 88.25 | | | | | | | | |
| 53 | Shariatpur | 10174 | 215 | 2042 | 17 | 3665 | 27 | 288 | 203 | 7 | 107 | 2 | 763 | 2 | 31 | | | | | | | 461 | 20 | 143 | 1 | 314 | 4 | 21 | 10778 | 256 | 2326 | 20 | 4102 | 33 | 341 | 17959 | 19,034,431 | 94.05 | 88.32 |
| 54 | Shariatpur | 3500 | 25 | 343 | 9 | 670 | 3 | 42 | | | | | | 4 | 1 | 7 | 0 | 3 | 0 | 3 | 2094 | 21 | 515 | 9 | 673 | 3 | 65 | 3513 | 3,22,549 | 81.35 | 121.28 | | | | | | | | |
| 55 | Shariatpur | 1553 | 26 | 530 | 1 | 425 | 0 | 72 | | | | | | 72 | 1 | 4 | 0 | 45 | 0 | 45 | 0 | 1810 | 26 | 571 | 1 | 480 | 0 | 72 | 2323 | 2,55,544 | 73.34 | 113.79 | | | | | | | |
| 56 | Shariatpur | 1521 | 11 | 485 | 0 | 425 | 0 | 22 | | | | | | 55 | 4 | 207 | 0 | 16 | 0 | 16 | 0 | 157 | 15 | 665 | 0 | 442 | 0 | 25 | 2735 | 2,748,259 | 73.34 | 100.25 | | | | | | | |
| 57 | Shariatpur | 1057 | 3 | 355 | 0 | 218 | 0 | 5 | | | | | | | | | | | | | | 1057 | 3 | 355 | 0 | 218 | 0 | 5 | 1633 | 1,354,311 | 75.57 | 179.70 | | | | | | | |
| 58 | Shariatpur | 1401 | 16 | 413 | 5 | 496 | 1 | 14 | | | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 140 | 36 | 412 | 5 | 384 | 1 | 14 | 2234 | 1,49,076 | 73.5 | 172.0 | | | | | | | | |
| 59 | Shariatpur | 558 | 8 | 172 | 4 | 189 | 1 | 9 | | | | | | 38 | 8 | 72 | 4 | 78 | 1 | 9 | 34 | 8 | 72 | 4 | 78 | 1 | 9 | 34 | 1,207,213 | 81.75 | 86.41 | | | | | | | | |
| 60 | Shariatpur | 2294 | 45 | 715 | 3 | 680 | 0 | 40 | | | | | | 25 | 12 | 7 | 0 | 16 | 0 | 16 | 0 | 3 | 2319 | 55 | 742 | 3 | 695 | 0 | 65 | 3533 | 3,16,889 | 74.57 | 122.67 | | | | | | |
| 61 | Shariatpur | 958 | 20 | 112 | 4 | 251 | 0 | 27 | | | | | | 55 | 2 | 54 | 0 | 20 | 0 | 20 | 0 | 9 | 783 | 21 | 225 | 4 | 281 | 0 | 36 | 1335 | 1,54,095 | 83.35 | 100.09 | | | | | | |
| 62 | Shariatpur | 12112 | 190 | 3419 | 27 | 3213 | 5 | 233 | | | | | | 267 | 18 | 318 | 0 | 110 | 0 | 110 | 0 | 15 | 1239 | 168 | 379 | 27 | 3363 | 5 | 247 | 19866 | 17,061,912 | 92.19 | 114.07 | | | | | | |
| 63 | Shariatpur | 1752 | 33 | 1107 | 23 | 575 | 6 | 23 | | | | | | | | | | | | | | 1752 | 33 | 1107 | 23 | 575 | 6 | 23 | 3755 | 2,98,072 | 75.54 | 155.33 | | | | | | | |
| 64 | Shariatpur | 1420 | 31 | 1023 | 59 | 577 | 3 | 21 | | | | | | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1420 | 31 | 1023 | 59 | 577 | 3 | 21 | 3137 | 2,70,487 | 67.59 | 148.35 | | | | | | | | |
| 65 | Shariatpur | 2234 | 40 | 1861 | 29 | 574 | 3 | 264 | | | | | | 2 | 1 | 9 | 0 | 3 | 0 | 3 | 0 | 237 | 45 | 917 | 80 | 577 | 3 | 204 | 3215 | 2,72,556 | 81.24 | 182.94 | | | | | | | |
| 66 | Shariatpur | 1958 | 50 | 995 | 13 | 838 | 12 | 50 | 48 | 32 | 330 | 9 | 267 | 4 | 34 | | | | | | | 1958 | 50 | 995 | 13 | 838 | 12 | 50 | 3433 | 3,80,220 | 84.5 | 134.20 | | | | | | | |
| 67 | Shariatpur | 7344 | 164 | 5074 | 106 | 2382 | 24 | 269 | 481 | 32 | 330 | 9 | 267 | 4 | 34 | | | | | | | 7344 | 164 | 5074 | 106 | 2382 | 24 | 269 | 17282 | 11,002,800 | 73.13 | 130.88 | | | | | | | |
| Grand Total: | | 92716 | 2027 | 36346 | 694 | 27854 | 161 | 4622 | 9535 | 871 | 5403 | 167 | 8348 | 142 | 915 | 1438 | 91 | 831 | 2 | 1344 | 6 | 54 | 19035 | 2390 | 4180 | 863 | 37486 | 309 | 5631 | 156,754,717 | 88.09 | 121.95 | | | | | | | |

District-wise Treatment Results, new smear-positive cases registered in 2013

| SL | District | Absolute numbers | | | | | | Percentage | | | | | | | | |
|----|----------------|------------------|-------|--------|------|------|------|------------|----------|--------|--------|-------|-------|-------|--------|----------|
| | | Res. Case | Cured | T. Com | Died | Fail | Def. | T. Out | Not Eva. | Cured | T. Com | Died | Fail | Def. | T. Out | Not Eva. |
| 1 | Barguna | 893 | 849 | 0 | 35 | 3 | 4 | 0 | 2 | 95.07% | 0.00% | 3.92% | 0.14% | 0.45% | 0.00% | 0.22% |
| 2 | Barisal | 2249 | 2109 | 16 | 64 | 4 | 28 | 16 | 12 | 93.20% | 0.71% | 2.85% | 0.18% | 1.24% | 0.71% | 0.53% |
| 3 | Bhola | 1850 | 1743 | 36 | 59 | 2 | 3 | 3 | 4 | 94.22% | 1.95% | 3.19% | 0.11% | 0.16% | 0.16% | 0.22% |
| 4 | Jhalakati | 672 | 631 | 18 | 15 | 2 | 1 | 0 | 5 | 93.90% | 2.63% | 2.23% | 0.30% | 0.15% | 0.00% | 0.74% |
| 5 | Patakhali | 1647 | 1574 | 21 | 41 | 5 | 3 | 2 | 1 | 95.57% | 1.28% | 2.49% | 0.30% | 0.18% | 0.12% | 0.06% |
| 6 | Propur | 1046 | 981 | 17 | 39 | 2 | 6 | 0 | 1 | 93.79% | 1.63% | 3.73% | 0.19% | 0.57% | 0.00% | 0.10% |
| | Barisal Div | 8357 | 7887 | 108 | 253 | 18 | 45 | 21 | 25 | 94.38% | 1.29% | 3.03% | 0.22% | 0.54% | 0.25% | 0.30% |
| 7 | Dandapani | 302 | 292 | 2 | 6 | 1 | 1 | 0 | 0 | 96.69% | 0.66% | 1.99% | 0.33% | 0.33% | 0.00% | 0.00% |
| 8 | Brahmanbaria | 2192 | 2052 | 8 | 94 | 3 | 15 | 18 | 2 | 93.61% | 0.36% | 4.29% | 0.14% | 0.68% | 0.82% | 0.09% |
| 9 | Chandpur | 2042 | 1979 | 0 | 55 | 2 | 0 | 6 | 0 | 96.31% | 0.00% | 2.69% | 0.10% | 0.00% | 0.29% | 0.00% |
| 10 | Chittagong | 6449 | 6032 | 36 | 198 | 37 | 41 | 53 | 32 | 93.84% | 0.56% | 3.07% | 0.57% | 0.64% | 0.82% | 0.50% |
| 11 | Coxila | 3614 | 3433 | 19 | 118 | 10 | 15 | 70 | 9 | 94.99% | 0.53% | 3.27% | 0.28% | 0.42% | 0.28% | 0.25% |
| 12 | Cox Bazar | 1883 | 1732 | 41 | 93 | 4 | 8 | 2 | 3 | 91.98% | 2.18% | 4.94% | 0.21% | 0.42% | 0.11% | 0.16% |
| 13 | Feni | 1175 | 1113 | 5 | 56 | 1 | 0 | 0 | 0 | 94.72% | 0.43% | 4.77% | 0.09% | 0.00% | 0.00% | 0.00% |
| 14 | Khagrachari | 566 | 558 | 0 | 6 | 1 | 0 | 1 | 0 | 98.59% | 0.00% | 1.06% | 0.18% | 0.00% | 0.18% | 0.00% |
| 15 | Lakshmipur | 1596 | 1560 | 5 | 28 | 1 | 1 | 1 | 2 | 97.52% | 0.31% | 1.75% | 0.06% | 0.06% | 0.06% | 0.13% |
| 16 | Noakhali | 2227 | 2172 | 3 | 98 | 7 | 2 | 5 | 0 | 94.89% | 0.13% | 4.40% | 0.31% | 0.09% | 0.22% | 0.00% |
| 17 | Rangamati | 434 | 423 | 0 | 6 | 1 | 0 | 3 | 1 | 97.47% | 0.00% | 1.38% | 0.23% | 0.00% | 0.69% | 0.23% |
| | Chittagong Div | 22482 | 21306 | 119 | 758 | 68 | 83 | 99 | 49 | 94.77% | 0.53% | 3.37% | 0.30% | 0.37% | 0.44% | 0.22% |
| 18 | Dhaka | 8327 | 7618 | 152 | 159 | 63 | 155 | 124 | 36 | 91.49% | 1.83% | 1.91% | 1.00% | 1.86% | 1.49% | 0.43% |
| 19 | Faridpur | 852 | 804 | 0 | 28 | 10 | 10 | 0 | 0 | 91.30% | 0.00% | 5.07% | 1.81% | 1.81% | 0.00% | 0.00% |
| 20 | Gazipur | 2367 | 2279 | 6 | 54 | 0 | 17 | 3 | 8 | 96.28% | 0.25% | 2.28% | 0.00% | 0.72% | 0.13% | 0.34% |
| 21 | Gopalganj | 460 | 405 | 0 | 19 | 12 | 22 | 2 | 0 | 83.04% | 0.00% | 4.13% | 2.61% | 4.78% | 0.43% | 0.00% |
| 22 | Jamshaur | 1546 | 1290 | 16 | 77 | 49 | 75 | 41 | 0 | 83.33% | 1.03% | 4.97% | 3.17% | 4.84% | 2.65% | 0.00% |
| 23 | Kishoreganj | 2070 | 1794 | 42 | 91 | 51 | 50 | 42 | 0 | 86.67% | 2.03% | 4.40% | 2.46% | 2.42% | 2.03% | 0.00% |
| 24 | Madanpur | 485 | 448 | 1 | 23 | 8 | 5 | 0 | 0 | 92.37% | 0.21% | 4.74% | 1.63% | 1.63% | 0.00% | 0.00% |
| 25 | Manikganj | 1320 | 1260 | 0 | 54 | 2 | 3 | 1 | 0 | 95.45% | 0.00% | 4.09% | 0.19% | 0.22% | 0.08% | 0.00% |
| 26 | Murshidganj | 1259 | 1180 | 24 | 38 | 4 | 11 | 1 | 1 | 93.23% | 1.97% | 3.02% | 0.25% | 0.87% | 0.08% | 0.06% |
| 27 | Myerensingh | 3447 | 3147 | 41 | 129 | 52 | 63 | 15 | 0 | 91.30% | 1.19% | 3.74% | 1.51% | 1.83% | 0.44% | 0.00% |
| 28 | Narayanganj | 1941 | 1860 | 12 | 40 | 10 | 4 | 13 | 2 | 95.83% | 0.62% | 2.06% | 0.52% | 0.27% | 0.67% | 0.10% |
| 29 | Narsinghdi | 2077 | 1966 | 6 | 91 | 1 | 11 | 0 | 2 | 94.66% | 0.29% | 4.30% | 0.09% | 0.53% | 0.00% | 0.10% |
| 30 | Netrakona | 1457 | 1291 | 19 | 62 | 42 | 35 | 8 | 0 | 83.61% | 1.39% | 4.26% | 2.88% | 2.40% | 0.33% | 0.00% |
| 31 | Rajshahi | 303 | 282 | 0 | 7 | 4 | 9 | 1 | 0 | 93.07% | 0.00% | 2.31% | 1.32% | 2.97% | 0.13% | 0.00% |
| 32 | Shariatpur | 415 | 383 | 0 | 13 | 12 | 6 | 1 | 0 | 92.29% | 0.00% | 3.13% | 2.89% | 1.45% | 0.14% | 0.00% |
| 33 | Sherpur | 1208 | 1141 | 0 | 55 | 6 | 3 | 0 | 3 | 94.45% | 0.00% | 4.55% | 0.50% | 0.25% | 0.00% | 0.25% |
| 34 | Tangail | 1760 | 1592 | 9 | 98 | 18 | 26 | 16 | 1 | 93.45% | 0.51% | 5.57% | 1.02% | 1.48% | 0.31% | 0.06% |
| | Dhaka Div | 30996 | 28440 | 328 | 1038 | 364 | 505 | 268 | 53 | 91.72% | 1.06% | 3.35% | 1.17% | 1.63% | 0.86% | 0.17% |

District-wise Treatment Results, new smear-positive cases registered in 2013

Annex 2

| SL | District | Absolute numbers | | | | | | Percentage | | | | | | | | |
|----|--------------|------------------|-------|--------|------|------|------|------------|----------|--------|--------|-------|-------|-------|--------|----------|
| | | Res. Case | Cured | T. Com | Died | Fail | Def. | T. Out | Not Eva. | Cured | T. Com | Died | Fail | Def. | T. Out | Not Eva. |
| 35 | Bagerhat | 1328 | 1244 | 11 | 42 | 4 | 16 | 5 | 6 | 93.67% | 0.33% | 3.16% | 0.30% | 1.20% | 0.30% | 0.45% |
| 36 | Chuadanga | 1106 | 1041 | 16 | 31 | 0 | 14 | 1 | 1 | 94.12% | 1.63% | 2.80% | 0.00% | 1.27% | 0.09% | 0.09% |
| 37 | Jessore | 2159 | 2039 | 27 | 57 | 3 | 23 | 5 | 5 | 94.44% | 1.33% | 2.64% | 0.14% | 1.07% | 0.23% | 0.23% |
| 38 | Jhenaidah | 1621 | 1549 | 1 | 37 | 1 | 27 | 0 | 6 | 95.50% | 0.06% | 2.28% | 0.06% | 1.67% | 0.00% | 0.37% |
| 39 | Khulna | 1762 | 1669 | 15 | 45 | 9 | 37 | 3 | 4 | 93.58% | 0.84% | 2.53% | 0.51% | 2.06% | 0.17% | 0.22% |
| 40 | Kushia | 1976 | 1850 | 45 | 53 | 2 | 19 | 5 | 2 | 93.62% | 2.38% | 2.68% | 0.10% | 0.96% | 0.25% | 0.10% |
| 41 | Magura | 716 | 677 | 2 | 25 | 1 | 10 | 1 | 0 | 94.56% | 0.38% | 3.49% | 0.14% | 1.40% | 0.14% | 0.00% |
| 42 | Meherpur | 619 | 598 | 0 | 18 | 1 | 1 | 1 | 0 | 96.61% | 0.00% | 2.91% | 0.16% | 0.16% | 0.16% | 0.00% |
| 43 | Narail | 616 | 554 | 7 | 20 | 1 | 23 | 2 | 9 | 89.94% | 1.16% | 3.25% | 0.16% | 3.73% | 0.32% | 1.46% |
| 44 | Satkhira | 1531 | 1442 | 12 | 51 | 2 | 16 | 0 | 8 | 94.19% | 0.78% | 3.33% | 0.13% | 1.05% | 0.00% | 0.54% |
| | Khulna Div | 13454 | 12663 | 138 | 379 | 24 | 186 | 23 | 41 | 94.12% | 1.03% | 2.82% | 0.18% | 1.38% | 0.17% | 0.30% |
| 45 | Bogra | 2821 | 2517 | 9 | 175 | 12 | 81 | 5 | 22 | 89.22% | 0.32% | 6.20% | 0.43% | 2.87% | 0.18% | 0.29% |
| 46 | Barisal | 884 | 793 | 3 | 38 | 1 | 32 | 70 | 7 | 89.71% | 0.34% | 4.30% | 0.11% | 3.62% | 1.13% | 0.29% |
| 47 | Moulvagan | 1084 | 998 | 6 | 45 | 24 | 18 | 3 | 0 | 91.22% | 0.53% | 4.11% | 2.19% | 1.65% | 0.27% | 0.00% |
| 48 | Natore | 120 | 675 | 0 | 30 | 3 | 11 | 1 | 0 | 93.29% | 0.00% | 4.17% | 0.42% | 1.53% | 0.14% | 0.00% |
| 49 | Nawalganj | 527 | 468 | 6 | 27 | 13 | 12 | 0 | 1 | 88.80% | 1.14% | 5.12% | 2.47% | 2.26% | 0.00% | 0.19% |
| 50 | Pabna | 1310 | 1266 | 0 | 33 | 5 | 3 | 0 | 3 | 96.65% | 0.00% | 2.53% | 0.38% | 0.23% | 0.00% | 0.23% |
| 51 | Rajshahi | 820 | 736 | 10 | 35 | 17 | 16 | 5 | 1 | 89.00% | 1.23% | 4.27% | 2.07% | 1.95% | 0.61% | 0.12% |
| 52 | Saiganj | 2224 | 2115 | 0 | 79 | 16 | 13 | 1 | 0 | 95.10% | 0.00% | 3.53% | 0.72% | 0.56% | 0.04% | 0.00% |
| | Rajshahi Div | 10480 | 9568 | 34 | 462 | 91 | 186 | 25 | 34 | 92.00% | 0.33% | 4.44% | 0.88% | 1.79% | 0.24% | 0.33% |
| 53 | Dhaka | 2728 | 2584 | 3 | 130 | 2 | 6 | 0 | 3 | 94.72% | 0.11% | 4.77% | 0.07% | 0.22% | 0.00% | 0.11% |
| 54 | Gaibandha | 1621 | 1463 | 21 | 89 | 12 | 29 | 0 | 7 | 90.29% | 1.30% | 5.49% | 0.74% | 1.79% | 0.00% | 0.43% |
| 55 | Kuriganj | 1541 | 1434 | 7 | 82 | 9 | 16 | 1 | 2 | 92.41% | 0.43% | 5.32% | 0.58% | 1.04% | 0.06% | 0.13% |
| 56 | Lalmonirhat | 953 | 945 | 0 | 41 | 6 | 1 | 0 | 0 | 95.17% | 0.00% | 4.13% | 0.60% | 0.10% | 0.00% | 0.00% |
| 57 | Mohamari | 1360 | 1272 | 0 | 74 | 5 | 20 | 0 | 9 | 92.17% | 0.00% | 5.26% | 0.36% | 1.45% | 0.00% | 0.45% |
| 58 | Panchaganj | 561 | 511 | 6 | 29 | 5 | 6 | 4 | 0 | 91.09% | 1.07% | 5.17% | 0.99% | 1.07% | 0.71% | 0.00% |
| 59 | Rangpur | 2033 | 1865 | 1 | 87 | 7 | 54 | 17 | 2 | 91.24% | 0.05% | 4.28% | 0.34% | 2.66% | 0.64% | 0.10% |
| 60 | Thaiganj | 949 | 882 | 2 | 58 | 6 | 21 | 7 | 3 | 89.78% | 0.21% | 6.11% | 0.53% | 2.21% | 0.24% | 0.32% |
| | Rangpur Div | 11846 | 10916 | 40 | 590 | 52 | 153 | 29 | 26 | 92.46% | 0.34% | 5.00% | 0.44% | 1.30% | 0.25% | 0.22% |
| 61 | Habiganj | 1762 | 1638 | 11 | 41 | 7 | 1 | 2 | 2 | 96.37% | 0.62% | 2.33% | 0.40% | 0.05% | 0.11% | 0.11% |
| 62 | Moulvibazar | 1327 | 1260 | 2 | 61 | 4 | 0 | 0 | 0 | 94.92% | 0.13% | 4.60% | 0.30% | 0.00% | 0.00% | 0.00% |
| 63 | Sunamganj | 2358 | 2271 | 26 | 47 | 2 | 8 | 1 | 3 | 96.31% | 1.10% | 1.99% | 0.08% | 0.34% | 0.04% | 0.13% |
| 64 | Sylhet | 2448 | 2322 | 3 | 86 | 12 | 13 | 11 | 1 | 94.38% | 0.12% | 3.51% | 0.49% | 0.53% | 0.45% | 0.04% |
| | Sylhet Div | 7895 | 7551 | 42 | 235 | 25 | 22 | 14 | 6 | 95.64% | 0.53% | 2.98% | 0.32% | 0.28% | 0.18% | 0.08% |
| | Grand Total: | 105390 | 98331 | 899 | 3715 | 642 | 1180 | 479 | 234 | 93.30% | 0.77% | 3.53% | 0.61% | 1.12% | 0.45% | 0.22% |

Lab report: Year 2014

Annex- 3

| 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 | 436551 | 27567 | 6.31 | 1271690 | 68394 | 10574 | 91308 | 1516 | 1930 | 3.77 |
| 2nd | 410762 | 28004 | 6.82 | 1194552 | 70110 | 10018 | 91882 | 1749 | 2094 | 4.18 |
| 3rd | 414075 | 29268 | 7.07 | 824861 | 48981 | 8478 | 95039 | 1707 | 1912 | 3.81 |
| 4th | 438410 | 28242 | 6.44 | 868379 | 46098 | 8690 | 95577 | 1838 | 2161 | 4.18 |
| Total | 1699798 | 113081 | 6.65 | 4159482 | 233583 | 37760 | 373806 | 6810 | 8097 | 3.99 |

List of EQA Centre: 2014

| Division | EQA ID | Location of EQA 1st Control Centre | Organization | Coverage (district) | # of MCs Coverage |
|----------|--------|------------------------------------|--------------|---------------------|-------------------|
| Rajshahi | 1 | CDC Bogra | BRAC | Bogra | 28 |
| | 2 | CDC Dinajpur | BRAC | Jaipurhat | 8 |
| | 6 | LEPRA Sirajganj | LEPRA | Natore | 11 |
| | | | | Pabna | 16 |
| | | | | Sirajganj | 15 |
| | 7 | CDH/DF Rajshahi | DF | Naogaon | 12 |
| | | | | Nawabganj | 7 |
| | | | | Rajshahi | 19 |
| Rangpur | 1 | CDC Bogra | BRAC | Gaibandha | 19 |
| | 2 | CDC Dinajpur | BRAC | Dinajpur | 28 |
| | 3 | CDC Rangpur | BRAC | Nilphamari | 15 |
| | 4 | TLMB Thakurgaon | TLMB | Rangpur | 21 |
| | | | | Panchagarh | 8 |
| | 5 | RDRS Lalmonirhat | RDRS | Thakurgaon | 10 |
| | | | | Kurigram | 15 |
| Khulna | 8 | CDC Jessore | BRAC | Lalmonirhat | 6 |
| | | | | Jessore | 20 |
| | 36 | CDC Bagerhat | BRAC | Narail | 6 |
| | 9 | CDC Khulna | BRAC | Bagerhat | 17 |
| | 40 | CDC Satkhira | BRAC | Khulna | 24 |
| | 10 | CDC Magura | BRAC | Satkhira | 15 |
| | | | | Jhenaidah | 12 |
| | 11 | CDC Meherpur | BRAC | Magura | 9 |
| | | | | Chuadanga | 9 |
| | | | | Kushtia | 13 |
| | | | | Meherpur | 6 |
| Barisal | 12 | CDC Barisal | BRAC | Barisal | 25 |
| | 38 | CDC Bhola | BRAC | Bhola | 15 |
| | 13 | CDC Patuakhali | BRAC | Barguna | 10 |
| | | | | Patuakhali | 15 |
| | 14 | CDC Pirojpur | BRAC | Jhalakati | 9 |
| Sylhet | 15 | CDC Sylhet | BRAC | Pirojpur | 11 |
| | | | | Sunamganj | 15 |
| | 16 | HEED Kamlganj/Moulvibazar | HEED | Sylhet (urban) | 8 |
| | 17 | CDC Moulvibazar | HEED | Sylhet (rural) | 15 |
| | | | | Habiganj | 12 |
| | | | | Moulvibazar | 12 |

List of EQA Centre: 2014

| | | | | | |
|------------|----|---------------------------------|---------|------------------------------|------|
| Dhaka | 18 | BRAC, Dakinkhan | BRAC | Dhaka (Peri-urban) | 19 |
| | | | | (Urban) | 32 |
| | 19 | KMSS Pallabi Extention | UPHCSDP | Dhaka-urban, UPHCSDP area | 27 |
| | 20 | CWED Tejjao | NHSDP | Dhaka-urban, NHSDP area | 20 |
| | 21 | TB Control & Training Institute | GoB | Dhaka-urban | 11 |
| | 22 | CDC Shyamoli | GoB | Dhaka-urban | |
| | 23 | CDC Munshiganj | BRAC | Munshiganj | 11 |
| | | | | Narayanganj | 14 |
| | 24 | CDC Mymensingh | BRAC | Gazipur | 13 |
| | | | | Manikganj | 10 |
| | | | | Sherpur | 9 |
| | | | | Mymensingh (urban) | 11 |
| | 25 | DF Mymensingh | DF | Mymensingh (rural) | 14 |
| | | | | Kishoreganj | 19 |
| | 26 | DF Faridpur | DF | Faridpur | 12 |
| | | | | Gopalganj | 8 |
| | | | | Madaripur | 6 |
| | | | | Rajbari | 5 |
| | | | | Shariatpur | 7 |
| | 27 | DF Tangail | DF | Jamalpur | 15 |
| | | | | Tangail | 20 |
| | 28 | DF Netrakona | DF | Netrakona | 12 |
| Chittagong | 29 | CDC Brahmanbaria | BRAC | Narsinghdi | 12 |
| | 29 | CDC Brahmanbaria | BRAC | Brahmanbaria | 16 |
| | 30 | CDC Comilla | BRAC | Comilla | 33 |
| | 31 | CDC Cox's Bazar | BRAC | Cox's Bazar | 17 |
| | 39 | CS Office Bandarban | BRAC | Bandarban | 25 |
| | 32 | CDC Chandpur | BRAC | Chandpur | 17 |
| | | | | Lakshmipur | 12 |
| | 33 | CDC Chittagong | BRAC | Chittagong-rural | 34 |
| | | | | Chittagong-urban | 26 |
| | 34 | CDC Noakhali | BRAC | Feni | 11 |
| | | | | Noakhali | 20 |
| | 35 | CDC Rangamati | BRAC | Rangamati | 42 |
| | 37 | CDC Khagrachari | BRAC | Khagrachari | 28 |
| Total | | | | | 1104 |

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) | UPHCSDP-DAM-PA 5 | Nagar Shastho Kendra, North-east corner of Graveyard, Road 10/4F, Sector 4, Uttara, Dhaka-1230, Mobile: 01724-048535 / 01823-025051 | Microscopy & DOT | |
| 2 | 1 (North) | UPHCSDP-DAM-PA 5 | Nagar Shastho Kendra, House # 92, Road # 12, Sector-10, Uttara, Dhaka-1230, Mobile: 01770-252531 / 01916-653444 | DOT | |
| 3 | 1 (North) | UPHCSDP-DAM-PA 5 | Nagar Shastho Kendra, 130 Ashkona, Medical Road, Uchcharak, Uttara, Dhaka-1230, Mobile: 01717-646624 / 01981-451672 | Microscopy & DOT | |
| 4 | 1 (North) | UPHCSDP-DAM-PA 5 | Nagar Shastho Kendra, 235-236 Darogabari, Modindho para Chourasta, Fayadabad, Uttara, Dhaka-1230, Mobile: 01770-252531 / 01916-653444 | DOT | |
| 5 | 4 (North) | NHSDP-PSTC | Surjer Hashi Clinic, House# A/1, Section-13, Mirpur, Dhaka-1216, Tel: 9005235, Mobile: 01911-220103 | Microscopy & DOT | |
| 6 | 5 (North) | NHSDP-PSTC | Surjer Hashi Clinic, Berybadh Bazar, Lalmatia, Bawniabadh, Block-E, Mirpur-11, Dhaka-1221, Mobile: 01714-240509 | Microscopy & DOT | |
| 7 | 6 (North) | UPHCSDP-KMSS-PA 4 | Nagar Shastho Kendra, House# 16, Road# 5, Arambagh, Section 7, Mirpur, Dhaka-1216, Tel: 9009014 | DOT | |
| 8 | 6 (North) | UPHCSDP-KMSS-PA 4 | Nagar Matri Sadan, House# J-2/A, Pallabi Extension, Mirpur, Dhaka-1216, Tel: 8051905 | Microscopy & DOT | |
| 9 | 7 (North) | UPHCSDP-KMSS-PA 4 | Nagar Shastho Kendra, House# 14, Avenue-1, Block-A, Section-2, Mirpur, Dhaka-1216, Tel: 8051681 | DOT | |
| 10 | 8 (North) | UPHCSDP-KMSS-PA 4 | Shahid Commissioner Saidur Rahman Newton Nagar Shastho Kendra, Block- F, Road-6, Section-1, Mirpur, Dhaka-1216, Tel: 9015640 | Microscopy & DOT | |
| 11 | 9 (North) | NHSDP-Swanirvar | Surjer Hashi Clinic, City Corporation Building, Golamtek (near Shahid Buddijibi Kabirsthan), Mirpur-1, Dhaka, Mobile: 01819-838988 | Microscopy & DOT | |
| 12 | 10 (North) | UPHCSDP-UTPS-PA 3 | Nagar Shastho Kendra, Nely Barir Tek, Horirampur Road, 2nd Colony, Sector 1, Mirpur, Dhaka-1216, Tel: 8053956 | Microscopy & DOT | |
| 13 | 11 (North) | UPHCSDP-UTPS-PA 3 | Nagar Shastho Kendra, House# 27, Road# 11, Kailayanpur, Dhaka-1207, Tel: 8054372 | DOT | |
| 14 | 11 (North) | UPHCSDP-UTPS-PA 3 | Nagar Shastho Kendra, 192/1, Middle Pikepara, Mirpur-1, Dhaka-1216, Tel: 8054019 | DOT | |
| 15 | 12 (North) | NHSDP-Swanirvar | Surjer Hashi Clinic, 26/A, Anammad Nagar (Near Kasem's Shop), Mirpur-1, Dhaka, Mobile: 01712-695371 | DOT | |
| 16 | 13 (North) | NHSDP-Swanirvar | Surjer Hashi Clinic, 27/1, Madhya Pierbagh (Near Paka Mosque), Dhaka, Mobile: 01716-094233 | Microscopy & DOT | |
| 17 | 14 (North) | NHSDP-Swanirvar | Surjer Hashi Clinic, 674, West Shewrapara, Kacha Bazar Goli, Mirpur, Dhaka, Mobile: 01716-402333 | Microscopy & DOT | |
| 18 | 16 (North) | UPHCSDP-UTPS-PA 3 | Nagar Shastho Kendra, 386, Munshibari Sarak, Uttar Ibrahimpur, Dhaka-1206, Tel: 8751425 | DOT | |
| 19 | 16 (North) | UPHCSDP-UTPS-PA 3 | Nagar Shastho Kendra, 575/2, Uttar Kafui, Dhaka Cantonment, Dhaka-1206, Tel: 7850883 | Microscopy & DOT | |
| 20 | 17 (North) | UPHCSDP-UTPS-PA 5 | Nagar Shastho Kendra, Ka-131/4, Kazi Bari Mosque Road, Kuril, Dhaka, Mobile: 01735-282540 | Microscopy & DOT | |
| 21 | 20 (North) | UPHCSDP-Nari Mafree PA 1 | Nagar Shastho Kendra, GA/16/1, Amtola, Mohakhali, Dhaka-1212, Tel: 8031132 | Microscopy & DOT | |
| 22 | 21 (North) | UPHCSDP-Nari Mafree PA 1 | Nagar Shastho Kendra, 171, Backla, Dhaka-1205, Tel: 7850883 | Microscopy & DOT | |
| 23 | 22 (North) | NHSDP-PSTC | Surjer Hashi Clinic, Plot-5, Block-B, Main Road, Aftab Nagar, Dhaka-1219, Tel: 8860471, Mobile: 01687-299483 | Microscopy & DOT | |
| 24 | 23 (North) | NHSDP-PSTC | Surjer Hashi Clinic, B/346, Khilgaon, Talola, Dhaka-1219, Tel: 7251169, Mobile: 01729-705179 | DOT | |
| 25 | 25 (North) | NHSDP-Bamaneh | Smiling Sun Clinic, House-466/1 Shahinbagh, Nakhalpara, Tejgaon, Dhaka-1215 | DOT | |

Annex- 5

Contd.

| SL | Ward No. | Agency | Address | Service facility | Remark |
|--------------------------------|------------|---------------------------|--|------------------|------------------------------|
| Dhaka Metropolitan Area | | | | | |
| 26 | 27 (North) | NHSDP-Swaninvar | Surjer Hashi Clinic, 52/2, West Raja Bazar, Indira Road, Farmgate, Near Ronoda Pharmacy, Dhaka, Mobile: 01716-527301 | Microscopy & DOT | |
| 27 | 28 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, 58, West Agargaon (Near Dhaka Election Commission), Ground floor, Dhaka-1207, Ph. 8155092 | DOT | |
| 28 | 29 (North) | NHSDP-Swaninvar | Surjer Hashi Clinic, ADB Clinic Building, Block-F Baber Road, Chader Hat Khaier Math, Johurimohalla, Dhaka, Mobile: 01190-799294 | Microscopy & DOT | |
| 29 | 30 (North) | NHSDP-Swaninvar | Surjer Hashi Clinic, House# 324, Road# 3, Baitul Aman Housing Society, Near Adabor, Mohammadpur, Mobile: 01725-248990 | DOT | |
| 30 | 31 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, 65-V, Koorjahan Road, Mohammadpur, Dhaka-1207, Tel: 9144107 | DOT | |
| 31 | 31 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, 778 (besides water tank), Salimullah Road, Mohammadpur, Dhaka-1207, Tel: 8125773 | Microscopy & DOT | |
| 32 | 32 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, 6/28, Humayun Road (Near Zenava Camp), Ground floor, Mohammadpur, Dhaka-1207, Tel: 9144591 | DOT | |
| 33 | 34 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, 116/1, Pootpar (Battala), Rayer Bazar, Mohammadpur, Dhaka-1207, Tel: 9138215 | Microscopy & DOT | |
| 34 | 34 (North) | UPHCSDP-Nari Maitree PA 2 | Nagar Shastho Kendro, Pal Somhir Market, Sulfa ngonj, Rayer Bazar, Mohammadpur, Dhaka-1207, Tel: 9143516 | DOT | |
| 35 | 35 (North) | UPHCSDP-Nari Maitree PA 1 | Nagar Shastho Kendro, 599, Baro Moghbazar, Dhaka-1217, Tel: 8360756 | Microscopy & DOT | |
| 36 | 36 (North) | UPHCSDP-Nari Maitree PA 1 | Nagar Shastho Kendro, 594/A, Modhubagh, Moghbazar, Dhaka-1217, Tel: 8360482 | DOT | |
| 37 | 36 (North) | UPHCSDP-Nari Maitree PA 1 | Nagar Matri Sadan, Nayatola Green Way Road, (near Nayatola Park), Boro Moghbazar, Dhaka-1217, Tel: 9355277 | Microscopy & DOT | |
| 38 | 1 (South) | UPHCSDP-PSTC PA 5 | Nagar Shastho Kendro, House# 308/3, Block A, Tilapara, Khilgaon, Dhaka-1219, Tel: 7216369 | Microscopy & DOT | |
| 39 | 2 (South) | UPHCSDP-PSTC PA 5 | Nagar Shastho Kendro, House# 325, South Goran, Dhaka-1219, Tel: 7219959 | DOT | |
| 40 | 2 (South) | NHSDP-CWFD | Surjer Hashi Clinic, House# 1, Road# 9, Block D, Section-12, Pallabi, Mobile: 01190-697342 | Microscopy & DOT | |
| 41 | 3 (South) | UPHCSDP-PSTC PA 5 | Nagar Shastho Kendro, House# 33/1, Meradia Main Road, Meradia, Khilgaon, Dhaka-1219, Tel: 7218392 | DOT | |
| 42 | 4 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 43, Madhya Bashabo, Dhaka-1214, Tel: 7210608, Mobile: 01816-210953 | DOT | |
| 43 | 5 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, 122/2 (near Kamalapur Buddha Mandir), Ahmedbagh, Dhaka, Tel: 7274420 | Microscopy & DOT | Microscopy & not functioning |
| 44 | 6 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, 45/1-F, North Mugda, (Jheelpar), Dhaka, Tel: 7272018 | Microscopy & DOT | |
| 45 | 7 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 63, Maniknagar, Dhaka-1203, Tel: 7342914, Mobile: 01818-987884 | DOT | |
| 46 | 8 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, 122/1, South Kamalapur, Dhaka, Tel: 9354822 | DOT | |
| 47 | 9 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, 135, Arambagh (1st floor), Dhaka, Tel: 7194562 | DOT | |
| 48 | 10 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, 17, Baitul Mamur Jame Masjid Market (2nd floor), AGB Colony, Motijheel, Dhaka, Tel: 9350532 | DOT | |
| 49 | 11 (South) | UPHCSDP-PSTC PA 4 | Nagar Shastho Kendro, Bagicha (near Bagicha Masjid), North Shahjahanpur, Dhaka, Tel: 9354823, | Microscopy & DOT | |
| 50 | 12 (South) | UPHCSDP-PSTC PA 5 | Nagar Shastho Kendro, House# 462 Gulbagh (near new Gulbagh mosque), Malibagh, Dhaka-1217, Tel: 8357462 | Microscopy & DOT | |

Annex- 5

Contd.

| SL | Ward No. | Agency | Address | Service facility | Remark |
|--------------------------------|-----------------|-------------------|--|------------------|--------|
| Dhaka Metropolitan Area | | | | | |
| 51 | 13 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 124, Pir Saheber Goll, Shantinagar, Dhaka-1217, Tel: 8362152, Mobile: 01736-245478 | DOT | |
| 52 | 14 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 113 Gozmondal, Hazaribagh, Rayerbazar, Tel: 8611886, Mobile: 01731-909551 | Microscopy & DOT | |
| 53 | 15 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 640 Marikdi Bazar, Dhaka Cantonment, Mobile: 01715-283035 | Microscopy & DOT | |
| 54 | 16 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 233/4, Free School Street, Kathalbagh, Dhaka-1205, Tel: 9669895, Mobile: 01913-842800 | DOT | |
| 55 | 17 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 183, Green Road, Dhaka-1205, Tel: 9134091, Mobile: 01716-78405 | Microscopy & DOT | |
| 56 | 18 (South) | NHSDP-CWFD | Surjer Hashi Clinic, Palash Villa, Ga-19 Shahjadan, Gulshan, Mobile: 01719-052262 | Microscopy & DOT | |
| 57 | 19 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 30, Shahid Sangbadik Selina Parveen Serak (Old 103, New Circular Road), Dhaka-1217, Tel: 9351472 | Microscopy & DOT | |
| 58 | 22 (South) | UPHCSDP-BAPSA | Nagar Matri Sadan, Hazaribagh Park, Near Commissioner's Office, Hazaribagh, Dhaka-1205, Mobile: 01965-120850 | Microscopy & DOT | |
| 59 | 22 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Behind Hazaribagh Boro Mosque, Kalunagar, Dhaka-1205, Tel: 9667278, Mobile: 01914-734486 | DOT | |
| 60 | 23 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Azimpur (Near new graveyard), Dhaka-1205, Tel: 9664324, Mobile: 01734-850344 | DOT | |
| 61 | 23 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Nawabganj Bazar, BNP Club, Dhaka-1205, Mobile: 01912-707535 | DOT | |
| 62 | 24 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Shaheed Nagar Community Center, Shaheed Nagar, Lalbagh, Dhaka-1211, Mobile: 01915-030886 | DOT | |
| 63 | 24 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Boubazar, Beside Baribadi, Shaheed Nagar, Lalbagh, Dhaka-1211, Mobile: 01924-872623 | Microscopy & DOT | |
| 64 | 24 (South) | NHSDP-CWFD | Surjer Hashi Clinic, A bir Manjil, 23/4 F, Kuni para (Happy Homes Ltd), Tejgaon, Mobile: 01715-249249 | Microscopy & DOT | |
| 65 | 25 & 26 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 36, Sheikh Shaheb Bazar, Lalbagh Road, Tel: 8618533 | Microscopy & DOT | |
| 66 | 27 & 28 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Beside of Bakshi Bazar, Alia Madrasa, Bakshi Bazar, Dhaka-1211, Tel: 8622092, Mobile: 01743-290280 | DOT | |
| 67 | 29 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Opposite to power supply office, beside Islam bagh community center, Lalbagh, Dhaka-1211, Mobile: 01915-796921 | DOT | |
| 68 | 29 (South) | UPHCSDP-BAPSA | Nagar Shastho Kendro, Chadnighat, Islambagh, Lalbagh, Dhaka-1211, Mobile: 01731-625978 | Microscopy & DOT | |
| 69 | 30 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, 47 Naigola, Imamganj, Dhaka, Tel: 7320967 | Microscopy & DOT | |
| 70 | 31 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, 15 Moulavi Bazar Community Center, Becharam Deori, Dhaka, Tel: 7311705 | DOT | |
| 71 | 32 & 33 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, 26 Majed Sardar Road, Dhaka, Mobile: 01742-852596 | Microscopy & DOT | |
| 72 | 34 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, 25/T Aga Sadik Road, Dhaka, Mobile: 01680-101968 | DOT | |
| 73 | 35 & 36 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, 11, Hazi Moiruddin Road, Malitola (South point of North-South Road), Dhaka, Tel: 8554702 | DOT | |
| 74 | 37 & 43 (South) | UPHCSDP KMSS PA 2 | Nagar Shastho Kendro, Lakhuti, Parasgonj, Dhaka, Mobile: 01711-357349 | Microscopy & DOT | |
| 75 | 38 & 41 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 4, Joy Kali Mandir Road, Wari Tel: 7123463 | Microscopy & DOT | |

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Contd.

| SL | Ward No. | Agency | Address | Service facility | Remark |
|--------------------------------|-----------------|-------------------|---|------------------|--------|
| Dhaka Metropolitan Area | | | | | |
| 76 | 39 (South) | NHSDP-PSTC | Surjer Hashi Clinic, 12 K.M. Das Lane, Tikatuli, Dhaka-1203, Mobile: 01967-920461 | DOT | |
| 77 | 40 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 45, Doyagonj More, Doyagonj, Mobile: 01556-303871 | Microscopy & DOT | |
| 78 | 42 & 44 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 33, Begumgonj Lane, Begumgonj, Mobile: 01913-399345 | DOT | |
| 79 | 43 (South) | NHSDP-CWFD | Surjer Hashi Clinic, 11/4/1, Distillery Road (Chupkhola Math), Gandaria, Tel: 7448222 | Microscopy & DOT | |
| 80 | 46 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, 87, Keshob Banarjee Road, Loharpool, Sutrapur, Dhaka-1204, Tel: 7418002 | DOT | |
| 81 | 47 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, Balur Math, Shahid Nagar, Gandaria, Dhaka-1204, Tel: 7448003 | Microscopy & DOT | |
| 82 | 48 (South) | NHSDP-PSTC | Surjer Hashi Clinic, Jatrabari (North corner park) City corporation building, Dhaka-1203, Tel: 75462235, Mobile: 01718-085595 | DOT | |
| 83 | 49 (South) | NHSDP-PSTC | Surjer Hashi Clinic, Ground floor of Dhalpur Maternity, Dhalpur, Dhaka-1203, Tel: 7544061, Mobile: 01771-027378 | Microscopy & DOT | |
| 84 | 49 (South) | FOB | Saidebad Clinic, Saidebad, Ph: 7546402 | Microscopy & DOT | |
| 85 | 50 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, 17/8/3 South Jatrabari, Jaula Para, Jatrabari, Dhaka-1204, Tel: 7548661 | DOT | |
| 86 | 51 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, 160/1/B West Dhalapur, Jatrabari, Dhaka-1204, Tel: 7445794 | Microscopy & DOT | |
| 87 | 52 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, B.K. Chowdhury Hospital, WASA Road, New Jurain, Dhaka-1204, Tel: 7447985 | DOT | |
| 88 | 53 (South) | NHSDP-CWFD | Surjer Hashi Clinic, College Road, East Jurain, Tel: 7440293 | Microscopy & DOT | |
| 89 | 54 (South) | UPHCSDP-PSTC PA 1 | Nagar Shastho Kendro, Korimullahbagh, Postogola, Dhaka, Tel: 7447998 | Microscopy & DOT | |
| 90 | Peri-urban | GoB | Government Outdoor Dispensary, Kamrangirchar | DOT | |
| 91 | Peri-urban | BRAC | House 7, Road 16, Sector 10, Uttara (near Kamarpada bus stand) | DOT | |
| 92 | Peri-urban | BRAC | House 3, Road 7, Uttarkhan Capital Housing Society, Uttara | DOT | |
| 93 | Peri-urban | BRAC | Near Dakkhin Khan Bazaar, Dakkhin Khan, Uttara | Microscopy & DOT | |
| 94 | Peri-urban | BRAC | 25/A/B, 2nd Colony, Sector 1, Mirpur | Microscopy & DOT | |
| 95 | Peri-urban | BRAC | 206/A/1 Old Kachukhet, Cantonment | DOT | |
| 96 | Peri-urban | BRAC | 150/2 Kuril Bisho Road, Kazi Bari Mosque Lane, Jagannathpur | Microscopy & DOT | |
| 97 | Peri-urban | BRAC | House # 89/2/1, Hasenuddin Road, (Puraton Thana Road), North Badda | Microscopy & DOT | |
| 98 | Peri-urban | BRAC | 31/C, Road -4 Bonosi Project, Block-C, Goran, Madartek | Microscopy & DOT | |
| 99 | Peri-urban | BRAC | 27, Zigatola, Near Bitol Moham Masjid, Chanmondi | DOT | |
| 100 | Peri-urban | BRAC | 36 Badda Nagar (near Hazaribagh Park), Bhagolpur | Microscopy & DOT | |
| 101 | Peri-urban | BRAC | House 77, Ashrafabad (Near thana), Kamrangirchar | Microscopy & DOT | |
| 102 | Peri-urban | BRAC | 522, Khan Manjil, Chairmanbari, (Near WAPDA Mosque), Rasulpur | DOT | |
| 103 | Peri-urban | BRAC | 60, South Basabo, (Beside Health Aid Hospital & Bhodho Mondiri, Adish Dipankar Road, Sabujbagh | DOT | |
| 104 | Peri-urban | BRAC | 16/B/01 Dino Nath Sen Road (Near Sadhana Orshadhaloy), Gandaria, Sutrapur | DOT | |
| 105 | Peri-urban | BRAC | 76/2/A/5 Bibi Begicha, North Jatrabari | DOT | |
| 106 | Peri-urban | BRAC | Muradpur (Near Muradpur Bus Stand), Shampur | Microscopy & DOT | |

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Contd.

| SL | Ward No. | Agency | Address | Service facility | Remark |
|--------------------------------|-------------|--------------------|---|--|--------|
| Dhaka Metropolitan Area | | | | | |
| 107 | Peri-urban | BRAC | Shimultali Lane, (Nash of police fan), near Konapara Bus Stand, Matuail, Demra | Microscopy & DOT | |
| 108 | DOTS Corner | GoB | MDCH, Mohakhali | Microscopy & DOT | |
| 109 | DOTS Corner | GoB | Chest Diseases Clinic, Shyamoli, Ph: 9111892 | Microscopy & DOT | |
| 110 | DOTS Corner | GoB | TB Control and Training Institute, Chankharpool, Tel: 9550334 | Microscopy & DOT | |
| 111 | DOTS Corner | GoB | DOTS Corner, Dhaka Community Hospital, 190/1, Baro Moghbazar, Wireless Rail Gate, Ph: 9351190-1, 8314887 | Microscopy & DOT | |
| 112 | DOTS Corner | GoB | DOTS Corner, Isolation Ward, Medical Unit, Combined Military Hospital, Cantonment | Microscopy & DOT | |
| 113 | DOTS Corner | GoB | Dhaka Central Jail Hospital, Nazimuddin Road | Microscopy & DOT | |
| 114 | DOTS Corner | GoB | DOTS Corner, Police Hospital, Razarbagh Police Line | Microscopy & DOT | |
| 115 | DOTS Corner | BRAC | Shaheed Monsur Ali Medical College Hospital, Sector #11, Road # 10, Uttara, Dhaka (TB DOTS Corner, Room#16, Outdoor) | Microscopy & DOT | |
| 116 | DOTS Corner | BRAC | Women medical college and Hospital, Sector-01, Road # 8,9 Plot-04, Uttara, Dhaka, (TB DOTS Corner, Room#132, Gynae Outdoor) | Microscopy & DOT | |
| 117 | DOTS Corner | BRAC | East West Medical College Hospital, Talola, Ashulia Road, Turag, Dhaka, Room# 26, Outdoor | Microscopy & DOT | |
| 118 | DOTS Corner | BRAC | Shaheed Sharowardi Hospital, Dhaka (TB DOTS Corner, Room-20, Block -2, Outdoor) | DOT | |
| 119 | DOTS Corner | BRAC | Shishu Hospital, Dhaka | Microscopy & DOT | |
| 120 | DOTS Corner | BRAC | Bangladesh Medical College Hospital, Dhanmondi, Dhaka-1209, (TB DOTS Corner, Room# 118, Outdoor) | DOT | |
| 121 | DOTS Corner | BRAC | Dhaka Medical College Hospital, Dhaka (TB DOTS Corner, Room# 10, Outdoor) | Microscopy & DOT | |
| 122 | DOTS Corner | BRAC | Bangabandhu Sheikh Mujib Medical University, Sasthadi, Dhaka-1100, (TB DOTS Corner, C-odd, Outdoor) | Microscopy & DOT | |
| 123 | DOTS Corner | BRAC | BIHDEM Hospital, Shohbagh, Dhaka-1200 (TB DOTS Corner, Near Room# 127, Medicine Outdoor) | Microscopy & DOT | |
| 124 | DOTS Corner | BRAC | Sir Salimullah Medical College Hospital, Dhaka (TB DOTS Corner, Room# 120, Medicine Outdoor) | Microscopy & DOT | |
| 125 | DOTS Corner | BRAC | Dhaka National Medical College Hospital, 53/2 Jenson Road, Dhaka (TB DOTS Corner, Room# 130, Outdoor) | Microscopy & DOT | |
| 126 | DOTS Corner | BRAC | Institute of Child and Maternal Health, ICMH, Matuail, Dhaka (TB DOTS Corner, Near Record Room, Outdoor) | Microscopy & DOT | |
| 127 | DOTS Corner | BRAC | Kurmitola General Hospital, Dhaka Cantonment, Room # 327, 3rd Floor (Out Door) | Microscopy & DOT | |
| 128 | DOTS Corner | BRAC | Holy Family Red Crescent Medical College Hospital, Moghbazar, Room # 24, 1st Floor (Out Door) | DOT | |
| 129 | DOTS Corner | Gonoshachya Kendra | DOTS Corner, Gonoshachya Nagar Hospital, House 14E, Road 5, Dhanmondi 2/A, Ph: 4617368, 9675907 | Microscopy & DOT | |
| 130 | DOTS Corner | Salvation Army | House 35-37, Avenue 2, Block A, Section 11, Mirpur | Microscopy & DOT | |
| 131 | | ICM | Prescription Point Ltd, House # 105, Road # 12, Block E, Banani, Dhaka- 1213, Tel: 9897222, 8833389, 9592518 (Ext. 159). | Microscopy & DOT | |
| 132 | | BGMEA | 30/B, Malibagh, Chowdhurypara, Dhaka, Tel: 8311124 | Microscopy & DOT | |
| 133 | | BGMEA | Plot # 5, Road # 5, Milkita Road, Mirpur-7, Dhaka, Mobile: 01712-577657 | Microscopy & DOT | |
| 134 | | BGMEA | Plot # 6, Block # R/A, P.J.S.C.I Culture, Housing & Family Cooperative Society, Shamoli, Dhaka, Tel: 9120832 | Microscopy & DOT | |
| 135 | | BGMEA | Saru Kunja, House # 64, Block # G, Niketan Eastern Housing Ltd., Gulshan-1, Dhaka, Tel: 9853549 | Microscopy & DOT | |
| 136 | | BGMEA | House # 16/A, Road # 16, Sector # 4, Uttara, Dhaka, Tel: 8950208 | Microscopy & DOT | |
| 137 | | CPHD | 65/D, Zigatella, Dhaka-1205. | Microscopy & DOT | |
| 138 | | Icddr | TB REACH 3 (IPPM Initiative) Icddr, 68 Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka-1212, Mobile: 01779-100100 | TB patient reported by this centre are diagnosed and managed by Private Practitioners of Dhaka Metropolitan City | |
| 139 | | DCC (South) | Dhaka Mohanagar General Hospital, Nayabazar, Dhaka-1100, Tel: 7390860 | Microscopy & DOT | |

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| SL | Ward No. | Agency | Address | Service facility | Remark |
|-------------------------------------|----------|------------------|--|------------------|--------|
| Chittagong Metropolitan Area | | | | | |
| 1 | 1 | NHSDP-Image | Kashem Mansion (1st floor) Hathazari Road, Aman Bazar, South Pahartali, Phone # 031-2581793 | DOT | |
| 2 | 2 | NHSDP-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, Rowflood, Panchlaish | DOT | |
| 6 | 4 | GoB | Government Urban Dispensary, Gausul Azam, Chandgaon | DOT | |
| 7 | 4 | NHSDP-Image | Marium Villa, Moulur Pukur Par, Chandgaon, Phone # 031-672552 | Microscopy & DOT | |
| 8 | 5 | BRAC | DOTS Centre, Kalurghat R/A, Hazi Dulamish Road, Nazumish Hat, Mohara | DOT | |
| 9 | 8 | BRAC | DOTS Corner, Chittagong Medical College Hospital | Microscopy & DOT | |
| 10 | 8 | NATAB | NATAB Bhaban, 62 Katalganj, Panchlaish | Microscopy & DOT | |
| 11 | 9 | GoB | Government Urban Dispensary, North Pahartoli, Colonelhat | DOT | |
| 12 | 9 | GoB | Government Urban Dispensary, North Pahartoli, Ferrozshah | DOT | |
| 13 | 9 | NHSDP-Nishikrity | Rafique Chowdhury Bhaban, New Monsurabad, Pahartoli | Microscopy & DOT | |
| 14 | 10 | BRAC | DOTS Centre, Fouzdarhat R/A | DOT | |
| 15 | 10 | NHSDP-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 | Chadur Chowdhury Primary Health Care Centre, Chadur Chowdhury Road, Custom Academy, South Kattali | DOT | |
| 18 | 12 | CCC | City Corporation dispensary (CCD), Sarajpara | DOT | |
| 19 | 13 | MAMATA | 380/A, Flora Pass Road, Amibagan, Pahartoli, Chittagong, Mobile: 01711-903395 | DOT | |
| 20 | 13 | NHSDP-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 Manee Shadin, Saam Building, 61, Chaudhari Road, Lalkhan Bazar, Chittagong, Phone 031-625804 | Microscopy & DOT | |
| 23 | 14 | BRAC | DOTS Corner, Railway Hospital | Microscopy & DOT | |
| 24 | 15 | MAMATA | 27 Betari Golf, Bagmoniram, Chittagong, Mobile: 01711-903395 | DOT | |
| 25 | 16 | CCC | City Corporation dispensary (CCD), Ward Commissioner's Office, Chawkbazar | DOT | |
| 26 | 17 | NHSDP-Nishikrity | Rahman Mansion, Bahattarpool, 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 Meesh 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 | NHSDP-Nishikrity | 129, Jamal Khan by lane (north side of DC Hill) | Microscopy & DOT | |
| 32 | 22 | MAMATA | Amin Mansion, Plot No-582/805, 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 | NHSDP-Nishikrity | 217, North Agrabad (Mollapara more), Bongicera | DOT | |

| SL | Ward No. | Agency | Address | Service facility | Remark |
|-------------------------------------|----------|------------------|---|------------------|--------|
| Chittagong Metropolitan Area | | | | | |
| 35 | 24 | MAMATA | Panwala Para, Haddi Company 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 (Double mooring) | 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, Moghohi By Lane # 1, West Madarbari, Chittagong, Phone # 031-2514481 | Microscopy & DOT | |
| 43 | 30 | CCC | City Corporation dispensary, Yunus mia, Ward Commissioner's Office, East Madarbari | DOT | |
| 44 | 31 | BRAC | Khelaghor Ashor, Alkaran | DOT | |
| 45 | 32 | GoB | Chest Disease Clinic, Andarkills | Microscopy & DOT | |
| 46 | 33 | CCC | City Corporation dispensary, Ward Commissioner's Office, Firingee Bazar | DOT | |
| 47 | 33 | NHSDP-Nishikrity | 62/63, Post Kazi Nazrul Islam Road, Firingee Bazar, Kotowali | DOT | |
| 48 | 34 | BRAC | DOTS Centre, Pathanghata | DOT | |
| 49 | 35 | BRAC | DOTS Centre, Jail Hospital, Government Urban Dispensary, Basirhat | Microscopy & DOT | |
| 50 | 37 | NHSDP-Nishikrity | 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, Bandantila, South Halishahar (Chittagong, Phone: 031-740476, Mobile: 01920-470253 | 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/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 | | BGMFA | BGMFA Hospital, Saltgala Rail Crossing, Seamen's Hostel Gate, South Halishahar, Bandar, Chittagong, Tel: 031-740814, Mobile: 01813-277530 | Microscopy & DOT | |
| Khulna Metropolitan Area | | | | | |
| 1 | 01 | NSHDP-PKS | Maheshwarpasha, Daulatpur, UPHCP Bhaban, Khulna | DOT | |
| 2 | 02 | NSHDP-PKS | TB Hospital Road, Mirerdanga, UPHCP Bhaban, Khulna | DOT | |
| 3 | 02 | BRAC | DOTS Center for Industrial Center, Khulna, (Located at BRAC office at Fulbarigate area) | Microscopy & DOT | |
| 4 | 03 | PIME Sisters | PIME Sisters DALIT, 37/1, Kedarnath Road, Palligate, Maheshwarpasha, Daulatpur, Khulna | DOT | |
| 5 | 04 | NSHDP-PKS | Deyana, Daulatpur, UPHCP Bhaban, Khulna | DOT | |
| 6 | 05 | PIME Sisters | Muhsin Uppa Sasthya Kendra, Daulatpur Bazar, Daulatpur, Khulna | DOT | |
| 7 | 06 | NSHDP-PKS | 02, Cross Road, Pabla, Daulatpur, UPHCP Bhaban, Khulna | Microscopy & DOT | |

Annex- 5

Contd.

| SL | Ward No. | Agency | Address | Service facility | Remark |
|---------------------------------|----------|--------------|---|------------------|--------|
| Khulna Metropolitan Area | | | | | |
| 8 | 07 | PIME Sisters | Nazirghat urban clinic, Barabari, Khulna | DOT | |
| 9 | 07 | KWSS, KCC | PHCC-5, Uttar Kashipur, Khalishpur, Khulna. | Microscopy & DOT | |
| 10 | 08 | PIME Sisters | Sadar Hospital DOT Corner, Khulna | DOT | |
| 11 | 08 | KWSS, KCC | PHCC-3, Khalishpur New Market Road, Khalishpur, Khulna. | DOT | |
| 12 | 09 | PIME Sisters | Blue Sister DOTS Center, Tootpara zoracall bazar | DOT | |
| 13 | 09 | KWSS, KCC | PHCC-1, Bastuhara (Neer Abu Naser Hospital), Khulna | DOT | |
| 14 | 10 | PIME Sisters | PIME Sisters, Lal Hospital, Khalishpur, Khulna | DOT | |
| 15 | 10 | KWSS, KCC | PHCC-2, Nayabati, Khalishpur, (Neer Worder Land), Khulna | DOT | |
| 16 | 11 | PIME Sisters | Khanjahan Ali Databo Health Center, Lobonchara, Khulna | DOT | |
| 17 | 11 | KWSS, KCC | PHCC-3, Khalishpur New Market Road, Khalishpur, Khulna. | DOT | |
| 18 | 12 | NSHDP-FKS | 103, Central Block, Eidgah Road, Khalishpur, Tel. # 763518, Khulna | Microscopy & DOT | |
| 19 | 13 | PIME Sisters | PIME Sisters, Missionaries of Charity, Duttapara, Khalishpur, Khulna. | DOT | |
| 20 | 13 | KWSS, KCC | PHCC-6, Charerhat, Khalishpur, Khulna. | DOT | |
| 21 | 14 | PIME Sisters | PIME Sisters, Daspara Road, Boyra, Khulna. Tel. # 761782 | Microscopy & DOT | |
| 22 | 14 | KWSS, KCC | PHCC-4, Rayer Mohol, Boyra, Khulna. | DOT | |
| 23 | 15 | KWSS, KCC | PHCC-6, Charerhat, Khalishpur, Khulna. | DOT | |
| 24 | 16 | PIME Sisters | Demien Clinic, 5/1 Daspara Road, Bayra, Khulna | DOT | |
| 25 | 17 | BRAC | BRAC DOTS Corner, Khulna Medical College Hospital. | Microscopy & DOT | |
| 26 | 17 | GoB | Chest Clinic, Lower Jessore Road, Khulna, Tel. # 1731105 | Microscopy & DOT | |
| 27 | 18 | PIME Sisters | PIME Sisters, KhUDA House, South of Bus Terminal, Sonadanga, Khulna. | DOT | |
| 28 | 19 | NSHDP-FKS | Islamabad (Paipara) Community Center, Infront of Eidgah, UPHCP Bhaban, Khulna | DOT | |
| 29 | 20 | NSHDP-FKS | Shaikhpara Bazar, Shaikhpara UPHCP Bhaban, Khulna | DOT | |
| 30 | 21 | PIME Sisters | Khulna Prison. | DOT | |
| 31 | 21 | PIME Sisters | PIME Sisters, DOTS Corner, 150 Bedded General Hospital, Khulna. | DOT | |
| 32 | 22 | NSHDP-FKS | Mushipara, Custio M Grat, Nuton Bazar, Rupsha | DOT | |
| 33 | 23 | PIME Sisters | Sadar Hospital, Khulna | DOT | |
| 34 | 24 | NSHDP-FKS | Dighirpar, Nirala T/A, Road # 01, UPHCP Bhaban, Khulna | DOT | |
| 35 | 25, 26 | PIME Sisters | Majirghat Urban Dispensary, West Barliya Mor, Sonadanga, Khulna | DOT | |
| 36 | 26 | PIME Sisters | Olirbagan, Nazirghat Barabari, Nazirghat Road, Khulna | DOT | |
| 37 | 27 | NSHDP-FKS | Islampur Road, Tarer Pulur, UPHCP Bhaban, Khulna | Microscopy & DOT | |
| 38 | 28 | NSHDP-FKS | Surjer Hashi Clinic, Tootpara | DOT | |
| 39 | 29 | NSHDP-FKS | 47, South Central Road, Khulna. Tel. # 730024 | Microscopy & DOT | |
| 40 | 30 | PIME Sisters | BLUE SISTERS, Sisters Ashram Charles De Foucauld, 29/A, East Link Road, Tootpara Khulna | DOT | |
| 41 | 31 | PIME Sisters | PIME Sisters, Talola Hospital, Tootpara, Khulna. | DOT | |
| 42 | 31 | PIME Sisters | Khan Jahan Ali Charitable Dispensary, Labon Chara Main Road, Khulna | DOT | |

| SL | Ward No. | Agency | Address | Service facility | Remark |
|-----------------------------------|--|------------------|---|------------------|--------|
| Rajshahi Metropolitan Area | | | | | |
| 1 | 1 | UPHCS DP-RIC | Kashidanga, Rajshahi. | DOT | |
| 2 | 2, 3 | UPHCS DP-RIC | Tutuliopara, Horogram notun para, Rajshahi. | DOT | |
| 3 | 4, 5, 6 | MHSDP-Tilottama | Surjer Hashi Clinic, Bulampur, Rajshahi Court | Microscopy & DOT | |
| 4 | 6 | GoB | Rajshahi Chest Disease Hospital, Laxmipur | Microscopy & DOT | |
| 5 | 7 | MHSDP-Tilottama | Surjer Hashi Clinic, Shreerampur T-badhy, Rajshahi | DOT | |
| 6 | 8 | Damen Foundation | Rajshahi Jail | DOT | |
| 7 | 9 | GoB | Chest Disease Clinic, Hossenigonj | Microscopy & DOT | |
| 8 | 10 | Damen Foundation | DOTS Corner, Rajshahi Medical College Hospital, Laxmipur | Microscopy & DOT | |
| 9 | 11 | MHSDP-Tilottama | Surjer Hashi Clinic, Hetomkhan, Rajshahi | DOT | |
| 10 | 12 | UPHCS DP-RIC | Fudkipara, Rajshahi | DOT | |
| 11 | 13, 20 | UPHCS DP-RIC | Kadligonj, Close to RCC building, Rajshahi | Microscopy & DOT | |
| 12 | 14, 15 | UPHCS DP-RIC | Sopura Gorostan, Rajshahi | DOT | |
| 13 | 16 | MHSDP-Tilottama | Surjer Hashi Clinic, Koyerdara, Rajshahi | DOT | |
| 14 | 17, 19 | MHSDP-Tilottama | Surjer Hashi Clinic, North Nadopara, Byass More, Moddipara, Rajshahi, Organization's own building | Microscopy & DOT | |
| 15 | 18, 19 | UPHCS DP-RIC | Chotabongram, Rajshahi | DOT | |
| 16 | 21, 22, 23, 24, 25 | UPHCS DP-PSTC | PHCC-1, Panchobati, Ghoramara, Boalia, Rajshahi | DOT | |
| 17 | 26 | UPHCS DP-PSTC | PHCC-5, Meherchand Moddho para, Boalia, Rajshahi | DOT | |
| 18 | 27, 28 | UPHCS DP-PSTC | PHCC-2, Kazla, Motihar, Rajshahi | Microscopy | |
| 19 | 29 | UPHCS DP-PSTC | PHCC-3, Dashman, Bindour, Rajshahi | DOT | |
| 20 | 30 | UPHCS DP-PSTC | PHCC-4, Kotun budhpara, Motihar, Rajshahi | DOT | |
| 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, 26 | BRAC | DOTS Corner, Sher-e-Bangla Medical College Hospital | Microscopy & DOT | |
| 3 | 8 | BRAC | Barisal Jail | Microscopy & DOT | |
| 4 | 9, 20, 21, 22 | BRAC | General Hospital | Microscopy & DOT | |
| 5 | 1, 2, 3, 26, 27, 29, 30 | BRAC | DOTS Centre, BRAC Sadar Office, Kashiapur | Microscopy & DOT | |
| Sylhet Metropolitan Area | | | | | |
| 1 | 1, 2, 3, 10, 11, 12, 13, 16, 17 | BRAC | DOTS Corner, M.A.G. Osmani Medical College Hospital | Microscopy & DOT | |
| 2 | 4, 5, 6, 7, 8, 9 | BRAC | DOTS Corner, Jalalabad Ragib Rabeya Medical College Hospital, Pathantula | Microscopy & DOT | |
| 3 | 25, 26 | BRAC | DOTS Corner, North-East Medical College Hospital, Sekhghat, Telihadar | Microscopy & DOT | |
| 4 | 14 | BRAC | DOTS Corner, Sylhet Prison | Microscopy & DOT | |
| 5 | 18, 19, 20, 21 | GoB | Chest Disease Clinic, Baluchar, Sahi Eidgah | Microscopy & DOT | |
| 6 | 15, 22, 23, 24, 27 | BRAC | DOTS Corner, BRAC Urban Office, Shahjalel Upashahar | Microscopy & DOT | |
| 7 | | IOM | Medi-Aid Heart Centre, South Dargah Gate (Near Minar), Dargah Mohalla, Sylhet 3100 | Microscopy & DOT | |

Name of the SRs under GFATM Round-10 Grant (Total SRs working-42)

| Group | Name of the Sub-Recipients | Remarks |
|--|--|--|
| LTCC Partners | 1. Damien Foundation 2. TLMI-B 3. RDRS Bangladesh 4. LAMB 5. HEED Bangladesh 6. Lepra Bangladesh 7. PIME Sisters | Total SR-7 |
| UPHCSDP and Partners | 1. UPHCSDP 2. PSTC DSCC PA-1 3. KMSS DSCC PA-2 4. BAPSA DSCC PA-3 5. PSTC DSCC PA-4 6. PSTC DSCC PA-5 7. Nari Maitree DNCC PA-1 8. Nari Maitree DNCC PA-2 9. UTPS DNCC PA-3 10. KMSS DNCC PA-4 11. Dhaka Ahsania Mission(DAM) DNCC PA-5 12. Resource Integration Centre(RIC) RCC PA-1 13. PSTC RCC PA-2 14. KMSS KCC PA-1 | Total SR-14 |
| NHSDP Partners | 1. CWED 2. BAMANEH 3. Swarnirvar Bangladesh 4. PSTC-NHSDP 5. Tilottama 6. IMAGE 7. Nishkriti 8. PKS Khulna | Total SR-8 |
| PPM NGOs | 1. MAMATA 2. SAJIDA Foundation 3. LIFE 4. TMSS 5. YPSA | Total SR-5 Since July 1, 2015 only MAMATA exists as a SR in NFM. Other 4 SRs in this group were dropped from NFM. |
| TB-HIV NGOs | 1. Ashar Alo Society(AAS) 2. HASAB 3. VARD 4. Light House | Total SR-4 Since July 1, 2015 only AAS exists as a SR in NFM. Other 3 SRs in this group were dropped from NFM. |
| Others (research, civil society movement, and corporate sector) | 1. ICDDR,B 2. NATAB 3. BGMEA 4. BKMEA | Total SR-4 |

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিচালক, এমবিডিসি ও লাইন ডাইরেটর, টিবি-লেপ্রসি এর কার্যালয়
স্বাস্থ্য অধিদপ্তর, মহাখালী, ঢাকা-১২১২।

অফিস স্মারক

স্মারক নং স্বঃ অধিঃ/এমবিডিসি/বিবিধ-৪/২০১১/১১৬৩

তারিখ- ২৪/০৬/২০১৪


আনন্দের সাথে জানান যাচ্ছে যে বাংলাদেশ জাতীয় স্বাস্থ্য নিয়ন্ত্রন কর্মসূচির পক্ষ থেকে বিশ্ব স্বাস্থ্য সংস্থা (WHO) অনুমোদিত নতুন পদ্ধতিতে স্বাস্থ্য রোগ নির্ণয়, সংজ্ঞা ও শ্রেণীবিন্যাস সহ কিছু পরিবর্তন নিয়ে পরিবর্তিত কলেবরে নতুন "National Guidelines and Operational Manual for Tuberculosis Control-5th Edition" প্রকাশ করা হয়েছে। উক্ত পরিবর্তনের সাথে সঙ্গতি রেখে রেকর্ডিং ও রিপোর্টিং ফর্মও কিছু পরিবর্তন আনা হয়েছে।

আগামী ০১/০৭/২০১৪ ইং তারিখ থেকে নতুন গাইডলাইন অনুযায়ী স্বাস্থ্য নিয়ন্ত্রন কর্মসূচির কার্যক্রম বাস্তবায়ন করার জন্য সংশ্লিষ্ট সকল সরকারী ও বেসরকারী সংস্থার কর্মকর্তা ও কর্মচারীদের অনুরোধ করা হল।

মাঠ পর্যায়ে নতুন গাইডলাইন অনুযায়ী স্বাস্থ্য নিয়ন্ত্রন কার্যক্রম বাস্তবায়নের সুবিধার্থে উল্লেখযোগ্য কিছু পরিবর্তন, সংজ্ঞা ও পরিবর্তিত রেকর্ডিং/রিপোর্টিং ফর্ম এতদসঙ্গে সংযুক্ত করা হল।

কার্যক্রম বাস্তবায়নে কোনোরূপ জিজ্ঞাসা বা মতামত থাকলে এন.টি.পি প্রধান কার্যালয়ে যোগাযোগ করার জন্য বলা হল। (১৭১১৪০৮৬৭৪),
(E-mail : drmdmoib@gmail.com, emdadshan@yahoo.com)

সহযোগীতার জন্য ধন্যবাদ।


ডাঃ মোঃ আশরক হোসেন
পরিচালক, এমবিডিসি ও লাইন ডাইরেটর, টিবি-লেপ
স্বাস্থ্য অধিদপ্তর, মহাখালী, ঢাকা-১২১২

অনুলিপি সনয় অবগতির জন্য

- ১। সচিব, স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা। (দৃঃ অঃ সচিব মহোদয়ের একান্ত সচিব)
- ২। মহাপরিচালক, স্বাস্থ্য অধিদপ্তর, মহাখালী, ঢাকা-১২১২। (দৃঃ অঃ সহকারী পরিচালক, সমন্বয়)

বিতরণঃ

১. বিভাগীয় পরিচালক, স্বাস্থ্য, (সকল)।
- উপপরিচালক, এমবিডিসি ও প্রোগ্রাম ম্যানেজার টিবি, স্বাস্থ্য অধিদপ্তর, মহাখালী, ঢাকা-১২১২।
- সিভিল সার্জন, (সকল জেলা)
- উপজেলা স্বাস্থ্য ও পঃ পঃ কর্মকর্তা, (সকল)।
- ন্যাশনাল প্রোগ্রাম কনসালটেন্ট, এনটিপি।
- মেডিকেল সুপারভাইজেন্ট, এনআইডিসিএইচ, মহাখালী, ঢাকা।
- কো-অর্ডিনেটর, এনটিআরএল, মহাখালী, ঢাকা।
- পিএমডিটি কো-অর্ডিনেটর, সকল বিভাগ।
- অফিসার ইনচার্জ, টিবি কন্ট্রোল প্রজেক্ট, শ্যামলী।
- মেডিকেল সুপারভাইজেন্ট, টিবি কন্ট্রোল ও ট্রেনিং ইনস্টিটিউট, ঢাকা।
- ডিপিএম, এনটিপি (সকল)।
- মেডিকেল অফিসার, এনটিপি, (সকল)।
- বিভাগীয় টিবি এক্সপার্ট, এনটিপি (সকল)।
- টিবি এক্সপার্ট, এনটিপি (সকল)
- এনপিও, (সকল) বিশ্ব স্বাস্থ্য সংস্থা, ঢাকা।
- সহযোগী পরিচালক, এইচএনপিপি, ব্রাক। (সকল এস. আর দেয় অবহিত করার জন্য আপনাকে অনুরোধ করা হল)
- কন্স্ট্রাক্ট ডিরেক্টর, ডেমিহেন ফাউন্ডেশন, বাংলাদেশ।
- কন্স্ট্রাক্ট ডিরেক্টর, লেপ্রা, বাংলাদেশ
- প্রজেক্ট ডিরেক্টর, ইউপিএইচসিএসডিপি, নগর শবন, ঢাকা। (দৃঃ অঃ প্রোগ্রাম কনসালটেন্ট, ইউপিএইচসিএসডিপি)
- জেনারেল সেক্রেটারী, নাটাব।
- কন্স্ট্রাক্ট ডিরেক্টর, ইউআরসি ঢাকা।
- কন্স্ট্রাক্ট ডিরেক্টর, এমএসএইচ ঢাকা
- এক্সিকিউটিভ ডিরেক্টর, হীড।
- এক্সিকিউটিভ ডিরেক্টর, পিএসটিসি।
- ডাইরেটর সিএইচডিপি, ল্যান্ড।
- প্রজেক্ট কো-অর্ডিনেটর, আরডিআরএস, লালমনিরহাট।

National Guidelines and Operational Manual for Tuberculosis Control- 5th edition: What is new?

Sample: Sputum samples for AFB Diagnosis will be 2 (Spot and early morning) instead of 3.

Patients with single smear positive (at least with one clear AFB) will be considered as smear positive TB

Table 1. Case definition/terminology:

| Sl. No. | New | Old | Remarks |
|---------|--|--|--|
| 1. | Presumptive TB case: Cough for 3 | TB Suspect | less judgmental language |
| 2. | Bacteriologically-confirmed TB case | Combination of Sm+, Culture + and Xpert + (Mtb +ve and RIF sensitive) | To fit with the new diagnostic tools |
| 3. | clinically-diagnosed TB case | Sm negative and EP Cases diagnosed on the basis of X-ray abnormalities and suggestive histology without a laboratory confirmation. | active TB but who does not fulfill the criteria to be considered bacteriologically-confirmed |
| 4. | Treatment after loss to follow-up patients (Reregistered Case) | Treatment after default patients | less judgmental language |
| 5. | Lost to follow-up (treatment outcome) | Defaulter/defaulted | less judgmental language |

Why revision of previous case definitions, the categories used to assign outcomes, and the reporting framework for TB are needed?

- NTP has started implementing WHO-approved rapid diagnostics (WRD), employing molecular techniques for the diagnosis of TB, and will gradually replace conventional bacteriology for diagnosis in many settings. WRD results did not always fit with the previous case definitions and treatment outcomes. Patients diagnosed with rifampicin-resistant TB using Xpert MTB/RIF need to be enumerated separately and there was no provision in the previous recording and reporting documents to do so.
- WHO has decided to have less judgmental language, so the term defaulter has been replaced by Lost to follow-up and TB suspect by presumptive TB case.

Revised definitions**1. Case definitions**

A presumptive TB case is one who presents with symptoms or signs suggestive of TB (previously known as a TB suspect).

A bacteriologically-confirmed TB case is one that is positive upon sputum-smear microscopy, culture or WRD (WHO-approved rapid diagnostics such as Xpert MTB/RIF).

A clinically-diagnosed TB case is one who is started on a full treatment for active TB but who does not fulfill the criteria to be considered bacteriologically-confirmed. This includes pulmonary and extra-pulmonary cases diagnosed on the basis of X-ray abnormalities or suggestive histology without a laboratory confirmation. Clinically-diagnosed cases subsequently found to be bacteriologically-positive (before or after starting treatment) should be re-classified as bacteriologically-confirmed.

Cases of TB are also classified according to:

- anatomical site of disease
- history of previous treatment
- drug resistance (Ref PMDT Guidelines-2nd edition)
- HIV status

1.1 Classification based on anatomical site of disease

These classifications are the same as previously published: Pulmonary and Extra pulmonary

1.2 Classification based on history of previous TB treatment (patient registration group)

New patient have never had treatment for TB, or have taken anti-TB drugs for less than 1 month.

Previously-treated patients have received 1 month or more of anti-TB drugs in the past. They are further classified by the outcome of their most recent course of treatment as follows: (**all previously treated patients should be referred for geneXpert test**)

Relapse patients are previously treated for TB, were declared cured or treatment completed at the end of their most recent treatment episode and are now diagnosed with a recurrent episode of TB (either a true relapse or a new episode of TB caused by re-infection).

"Treatment after failure" patients are previously treated for TB and were declared treatment failed at the end of their most recent treatment episode.

"Treatment after loss to follow-up patients" are previously treated for TB and were declared Lost to follow-up after interruption of treatment for two or more consecutive months at the end of their most recent treatment episode. (These were previously known as Treatment after default patients).

"Other previously-treated" patients are previously treated for TB but with an undocumented outcome for their most recent treatment episode.

Patients with unknown previous treatment history are to be considered as new patients

1.3 Classification based on HIV status

HIV-positive patients have a documented HIV-positive result (e.g. there is documented evidence of enrolment in HIV care such as enrolment in the pre-ART register or in the ART register once started on ART) or have a positive HIV result from testing conducted at the time of TB diagnosis.

HIV-negative TB patients have a documented negative HIV result conducted at the time of TB diagnosis. HIV-negative TB patients subsequently found to be HIV-positive should be re-classified as HIV-positive TB patients.

HIV status unknown TB patients do not have a documented HIV test result.

Treatment outcomes for drug-susceptible TB patients

Table: 2 Treatment outcomes for drug-susceptible TB patients

| Outcome | Definition |
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| Cured (applicable for Bacteriologically confirmed pulmonary cases) | A pulmonary TB patient whose sputum is bacteriologically-confirmed at the beginning of treatment and who was smear- or culture-negative in the last month of treatment and on at least one previous occasion. |
| Treatment completed (applicable for Bacteriologically confirmed & Clinically diagnosed cases) | A TB patient who completed treatment without evidence of failure BUT there is no record to show that sputum smear or culture results in the last month of treatment and on at least one previous occasion are negative, either because they were not done or because results were not available. |
| Treatment failed | i) i) A bacteriologically confirmed TB patient whose sputum smear or culture is positive at month 5 or later during treatment. ii) ii) A clinically diagnosed Pulmonary TB patient whose sputum smear becomes positive at month 2/3 iii) iii) Non converter: A Bact confirmed TB patient whose sputum smear or culture remains positive at month 2/3 should be sent for GeneXpert test. If Xpert test shows Rif resistant (RR) should be placed on adequate 2nd line |
| Died | A TB patient who dies for any reason during the course of treatment. |
| Lost to follow-up | A TB patient whose treatment was interrupted for 2 consecutive months or more. |
| Not evaluated | A TB patient for whom no treatment outcome is assigned. (This includes cases "transferred out" to another treatment unit and whose treatment outcome is unknown). |
| Treatment success | The sum of cured and treatment completed. |