

ANNUAL REPORT





Preface

I am glad to share with you all the annual report 2019 of the Damien Foundation Bangladesh. This was possible through contributions from all those involved in every step of our services during the year.

Our efforts continue to reach as many TB (including MDR TB) and leprosy patients as possible with maximum quality care and services possible despite constraints as quality of health is our core value. We always look at possibilities and creating opportunities through realistic analysis of the fact and as a result there has been an increasing trend in TB case finding during the last 3 years. In 2019, we detected 30435 TB, 249 MDR TB and 275 leprosy affected people and brought them under effective treatment. Around 32,94,000 people were covered through various Advocacy Communication and Social Mobilization activities in this reporting year that helped in raising community awareness on TB and leprosy. There had been increase in both TB presumptive and cases resulting from project based micro level planning initiative. Near about 400,000 presumptive TB patients were identified in 2019 and there was about 10% increase of new TB cases in 2019 than in 2018. The results obviously reflect the efforts made by the staff members through their commitment, motivation and dedication. We also appreciate the supports received from national and local level health authorities and from other partners which also facilitated us in achieving these excellent results.

The organization received recognition from WHO and many countries for outstanding operational research on 9-month shorter treatment regimen for MDR TB that has facilitated in saving many lives (of MDR TB patients) with reduced cost in many countries. Conducting such research was only possible in an environment where highly controlled quality services are provided through skilled personnel. Supports from international institutions like ITM and the Union besides the NTP Bangladesh essentially facilitated the organization in conducting such researches. We duly recognize the contributions made by the participants to these researches through their participation.

Involvement of all care providers in identification of presumptive patients, ensuring their referral to the right place and utilization of all available diagnostic tools in their diagnosis followed by correct treatment contributed in achieving the good results in the project area. Increasing trend in involvement of government field staff in identifying presumptive TB cases indicates that field level integration of the TB programme is being strengthened further.

The organization intends to continue fruitful contribution to TB and leprosy field through partnership at home and abroad and expresses gratefulness for the continuous commitment of its partners, staffs and collaborators at all levels, and commits to continue to excel in quality health care provision, because that is what makes us unique.

Sincerely,

Dr. Aung Kya Jai Maug Country Director Damien Foundation Bangladesh



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Projects: FTLCP, MTLCP, NTLCP, RTLCP, TTLCP, DFCO together

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List of Abbreviations

ACSM	Advocacy, Communication & Social Mobilization
AFB	Acid - Fast Bacilli
AIDS	Acquired Immunodeficiency Syndrome
ALERT	All Africa Leprosy, Tuberculosis and Rehabilitation Training Centre
AO	Accounts Officer
BDQ	Bedaquiline
BRAC	Bangladesh Rural Advancement Committee
CCM	Country Coordinating Mechanism
CDC	Chest Disease Clinic / Communicable Disease Control
CDH	Chest Disease Hospital
CDR	Case Detection Rate
CS	Civil Surgeon / Culture and Sensitivity
СТ	Complete Treatment
СТВ	Challenge TB
DBLM	Danish Bangladesh Leprosy Mission (The Leprosy
	Mission, Bangladesh)
DEPZ	Dhaka Export Processing Zone
DF	Damien Foundation
DFB	Damien Foundation Belgium
DFBD	Damien Foundation Bangladesh
DFCO	Damien Foundation Coordinating Office
DGDC	Directorate General of Development Cooperation
DGHS	Directorate General of Health Services
DPM	Deputy Programme Manager
DOI	Directly Observed Treatment
DOIS	Directly Observed Treatment, Short-course
DSI	Drug Susceptibility Testing
EP	Extra-Pulmonary
EQA	External Quality Assessment
	Fleia Coordinator
	Fixed DOT Provider
	Eamily Health International
	Faridour TB & Leorosy Control Project
FW/A	Family Welfare Assistant
FWC	Family Welfare Center
GFATM	Global Fund to Fight AIDS Tuberculosis & Malaria
GLC	Green Light Committee
GNP	Gross National Product
GoB	Government of Bangladesh
GP	General Practitioner
HE	Health Education
HIV	Human Immunodeficiency Virus
HNPSP	Health Nutrition and Population Sector Programme
HR	Human Resource
ICDDR,B	International Center for Diarrheal Diseases Research,
	Bangladesh
IDU	Injecting Drug User
IEC	Information Education and Communication
ITM	Institute of Tropical Medicine
IUATLD	International Union against Tuberculosis & Lung Diseases
JMM	Joint Monitoring Mission
KNCV	Koninklijke Nederlandse Centrale Vereniging tot bestrijding
	der Tuberculose (Dutch Tuberculosis Foundation)
LCA	Leprosy Control Assistant
LED-FM	Light Emitting Diode – Florescent Microscope
LEPRA	Leprosy Relief Association (UK)

LFA	Local Funding Agent
lpa	Line Probe Assav
L-J	Lowenstein Jensen
MB	Multi- Bacillary
MBDC	Mycobacterial Disease Control
MCR	Micro Cellular Rubber
MDG	Millennium Development Goal
MDR-TB	Multi-Drug Resistant TB
MDT	Multiple Drug Therapy
M&EO	Monitoring & Evaluation Officer
мо	Medical Officer
MoH&FW	Ministry of Health & Family Welfare
MoU	Memorandum of Understanding
MSH	Management Science for Health
МТВ	Mycobacterium Tuberculosis
MTLCP	Mymensingh TB & Leprosy Control Project
NGO	Non-Governmental Organization
NLP	National Leprosy Programme
NTP	National Tuberculosis Control Programme
NTLP	National Tuberculosis Control & Leprosy Programme
NTLCP	Netrakona TB & Leprosy Control Project
NTM	Non-Tubercular Mycobacterium
NTRL	National Tuberculosis Reference Laboratory
OPD	Out Patient Department
PAL	Practical Approach to Lung Health
PB	Pauci-Bacillary
PBC	Pulmonary Bacteriologically Confirmed
PCD	Pulmonary Clinically Diagnosed
	Project Director
	Programme Manager
	Prevention Of Disabilities
	Principal Paciniant
DRSD	Poverty Reduction Strategy Paper
DT	Physio-Technician
PTR	Pulmonary Tuberculosis
ΩΔ	Quality Assurance
OMT	Quick Muscle Tests
RTLCP	Raishahi TB & Leprosy Control Project
RTRL	Regional Tuberculosis Reference Laboratory
SDG	Sustainable Development Goal
SR	Sub-Recipient
SRL	Supranational Reference Laboratory
ST	Sensory Tests
ТВ	Tuberculosis
TLCA	TB & Leprosy Control Assistant
TLCO	TB & Leprosy Control Officer
TLMIB	The Leprosy Mission International Bangladesh
TTLCP	Tangail TB & Leprosy Control Project
UHC	Upazila Health Complex
UH&FPO	Upazila Health & Family Planning Officer
USAID	United States Agency for International Development
UT	Under Treatment
VD	Village Doctor
WHO	World Health Organization
XDR	Extensively Drug Resistant (TB)
ZN	Ziel Neelsen

1. Damien Foundation: Background Information

Damien Foundation (DF), a Belgian non-denominational and pluralistic NGO founded in 1964, is dedicated to the fight against Leprosy and Tuberculosis until these are no longer a threat to public health. The foundation is active in 16 countries of **Asia** (Bangladesh, India & Nepal), **Africa** (DR of Congo, Burundi, Rwanda, Nigeria, Niger, Guinea, Mozambique, Comoros & Senegal), **America** (Nicaragua, Guatemala & Bolivia) and **Europe** (Belgium).

The Foundation takes its name from Father Damien, a Belgian missionary who worked in the Hawaiian archipelago in the second half of the nineteenth century. He sacrificed his life caring for the lepers abandoned on the island of Molokai.

The Foundation is a member of the International Federation of Anti-Leprosy Associations (ILEP) which coordinates the activities of organizations active in the field of leprosy control and care worldwide. Damien Foundation also contributes to operational and epidemiological research projects, the publication of scientific literature on leprosy and TB.

The Damien Foundation started its journey to serve leprosy patients in 6 districts of Bangladesh in 1972 and thus it has been more than three decades since the start of its journey in reaching the people affected by Leprosy in Bangladesh. In the beginning, DF fully concentrated on the elimination of Leprosy, and later on, since 1991 Tuberculosis (TB) Control has been included as the other major component considering the size of TB burden in Bangladesh. The organization is now involved in the control of Tuberculosis and further management of Leprosy in close collaboration with the National TB Control Programme (NTP) & National Leprosy Programme (NLP), Ministry of Health & Family Welfare (MoH&FW), Government of the People's Republic of Bangladesh. This collaboration is based on the Memorandum of Understanding (MoU) signed between National TB Control Programme on behalf of the Government of Bangladesh (GoB) and LTCC (Leprosy & Tuberculosis Coordination Committee). LTCC is a consortium of 10 Non-Governmental Organizations or NGOs (Damien Foundation, The Leprosy Mission International, LEPRA Bangladesh, HEED Bangladesh, RDRS, LAMB, Salvation Army, Dhanjuri Leprosy Center, PIME Sister and the Christian Leprosy Centre, Chandraghona).

As per MoU, each NGO partners are allocated to implement the programme in defined geographical areas in order to avoid duplication of services and GoB agreed to ensure supply of essential drugs, equipment (e.g. microscopes), laboratory reagents, other consumables, recording and reporting forms, registers etc. Besides 6 existing districts, 3 new districts from Rajshahi division were included in this collaborative agreement and daily centres from sub-district level were started gradually since 1995. Full geographical coverage from each upazila was achieved by mid-1998 in these 9 districts. Expansion to a new area consisting of 5 districts (27 sub-districts) in greater Faridpur region was started in October 2001 upon request of the government and full geographical coverage in this new area was achieved by mid–2003. Thus, the organization now covers 14 districts (113 sub-districts) and serves about 32 million people (20% of total country population). The organization operates through five projects, namely Tangail, Mymensingh, Netrakona, Rajshahi & Faridpur projects. The Damien Foundation Bangladesh works as a non–political organization duly registered with NGO Affairs Bureau, Govt. of Bangladesh, under the Foreign Donations (Voluntary Activities) Regulations Ordinance 1978.

A total of 150 daily combined (TB & Leprosy) clinics including in 7 medical college hospitals and one workplace-Dhaka Export Processing Zone and 11 leprosy (9 intermittent and 2 daily) clinics are functional in 113 upazilas (sub-districts). Additional second microscopy centers were established in 2005-2006 in order to ensure better geographical coverage and to improve access.

The project has also established a network of patient friendly directly observed treatment (DOT) services at the community level through voluntary involvement of village doctors, cured patients, religious leaders, school teachers etc. At present around 10,109 Fixed DOT Providers (FDPs) are involved in providing DOT in the area covered by DF.

The Damien Foundation program is providing specialized hospital care for complicated TB & Leprosy patients including MDR and XDR-TB patients by its own three referral hospitals with a total of 255 beds situated in Tangail Jalchatra hospital-95 beds, Mymensingh hospital-100 beds & Netrakona hospital-60 beds.

The DF MDR-TB project which was started in 1997 in the DF working area aiming at developing at a standardized shorter treatment regimen for MDR TB finally succeeded and resulted in the WHO endorsement in May 2016. DF expanded its MDR-TB project to the additional 13 new districts of the Rajshahi division through establishing a culture & drug-susceptibility testing (DST) laboratory in Rajshahi Chest Disease Hospital (CDH) since 2008. After endorsement of WHO the National TB Control Programme (NTP) Bangladesh adopted this shorter regimen and scaled up throughout the country starting from 2017.

Funding sources

The Damien Foundation-Bangladesh is mainly co-financed by the Belgian Government (Directorate General for Development-DGD) through the Damien Foundation-Belgium. Since August 2004, Damien Foundation Bangladesh is also financially supported for its Faridpur and Rajshahi projects from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM).

In 2019, a total amount of Taka 121,452,294.00 (Euro 1,314,120.00) was received as grant from Damien Foundation Belgium to cover the expenses of DGD supported projects. And a total fund received from GFATM in local currency was Taka 93,125,850.00 (equivalent to 1,007,211.30 Euro).

In addition, a considerable contribution was received from the Government of Bangladesh equivalent to Taka 84,174,879.00 which was realized in kind as TB drugs, MDR TB drugs, lab materials, logistic supplies, and so on. Besides, an estimated clinic-rent for 161 clinics was Taka 3,864,000.00. So, in total the government contribution was Taka 88,038,879.00 (equivalent to 952,192.68 Euro) in 2019.

2. Tuberculosis (TB)

Tuberculosis (TB) is a major public health problem in Bangladesh with annual notification of about 300,000 cases. Bangladesh belongs to the list of top 20 high TB and MDR-TB burden countries in the world in 2018. The WHO estimates that there were 221 new patients (all forms of TB) per 100,000 population in Bangladesh in 2018 and the estimated mortality rate for the same year was 29 per 100,000 population¹. The first national TB prevalence survey which was conducted from October 2007 to March 2009 showed an overall adjusted prevalence of smear positive TB 79.4 per 100,000 adult population aged above 14 years², The survey found that 51.9% of sputum smear positive patients did not have any symptoms which are likely to be missed by health workers. Assuming a sensitivity of 75% the authors estimated that the true smear positive TB rate might have been 105 per 100,000 adult population during the survey period. The most recent survey done in 2015–2016 of 98,710 participants following the latest WHO guidelines shows that the prevalence of pulmonary bacteriologically confirmed (PBC) patients among adult population (aged 15 years and above) is 278 per 100,000 adult population. This survey used the modern technology like GeneXpert, LED FM microscopy, digital chest X-Ray and culture in the diagnosis of pulmonary TB and used redefined screening questionnaire along with the digital X-Ray as screening tools. This prevalence survey also showed that only about 19% of the total Pulmonary Bacteriologically Confirmed (PBC) patients (52 out of 278) were detected through Microscopy among symptomatic (by symptom screening) and around 20% (56 out of 278) PBC patients were from symptom negative participants (screened through chest X-Ray and subsequently diagnosed by GeneXpert). It also showed that about 90% (251 out of 278) of the total PBC patients can be detected through Chest X-Ray.

The country adopted the WHO recommended DOTS strategy in 1993. The country achieved expansion of DOTS strategy throughout the country by 1998. With the financial support from GFATM, since August 2004, the NTP and its partner NGOs expanded and strengthened the overall TB control programme in the country. The service has been expanded to prisons, garments industries / work places, medical teaching institutes, Army hospitals etc. As a result, the national TB case notification (all forms) increased to 167 per 100,000 population in 2018³ from 58/100,000 population in 2000. DOTS services and active case finding were strengthened through financial support from GFATM and USAID (through projects like TBCAP, TBCARE II & Challenge TB) and through involving new partners in urban areas and also through introducing new technologies (i.e. LED FM system, GeneXpert, Digital X-Ray). A total of 229 GeneXpert machines were installed all over the country at the end of 2019 throughout the country.

The NTP national strategic plan covering the period 2015 - 2020 contains strategies and interventions based on the principles outlined in the WHO's "End TB Strategy" that would enable the NTP to achieve the End TB Strategy's Milestones for 2025 (75% reduction in tuberculosis deaths and 50% reduction in tuberculosis incidence rate) and targets for 2035 (95% reduction in tuberculosis deaths and 90% reduction in tuberculosis incidence rate) compared with 2015.

2.1 Progress towards case detection and treatment outcome targets:

A total of 30,435 TB patients were registered during 2019, of which 45% were pulmonary bacteriologically confirmed TB patients. The remaining (55%) were pulmonary clinically diagnosed TB and Extra-Pulmonary TB patients. The table below presents the numbers of the different forms of TB that were diagnosed annually during the period 2001-2019 in all project areas combined.

- ¹ Global Tuberculosis Report 2019-WHO (https://www.who.int/tb/data/en/)
- ² Health and Science Bulletin vol. 8 No. 4 December 2010; available online at http://dspace.icddrb.org/jspui/handle/123456789/4872
- ³ Calculated from WHO Global TB Report 2019 (TB case notification & population in 2018)



Year	New smear positive / PBC	Re-treatment	Smear-neg. / PCD & EP	Total
2001	8677	1327	1637	11641
2002	9895	1607	2078	13580
2003	10912	1744	2619	15275
2004	11298	1714	3772	16784
2005	12350	1552	4616	18518
2006	14084	1717	6455	22256
2007	13899	1501	6366	21791
2008	14150	1475	6752	22377
2009	14611	1746	8096	24453
2010	13805	1566	9233	24604
2011	13268	1435	9722	24425
2012	13966	1418	9348	24732
2013	13115	1314	10145	24574
2014	12683	1321	10476	24480
2015	12194	1148	11396	24738
2016	12328	1185	10787	24300
2017	12900	1204	11529	25633
2018	12149	1102	14424	27675
2019	12665	1055	16715	30435

Table: 1 Tuberculosis patients (different type) registered since 2001

Registration of TB patients (all forms) has increased over time but remained almost stable for the last several years up to 2016. However, due to some special efforts, like identifying scope of increasing the clinically diagnosed patients according to recent prevalence survey and micro planning to find out missing patients, 2042 more TB patients were identified in 2018 than in 2017 and 2760 more patients were identified in 2019 than in 2018. The proportion of re-treatment patients among the positive patients remained at 8%, as shown in graph 1. The increase in numbers of pulmonary clinically diagnosed (PCD) and extra-pulmonary (EP) patients has contributed to the overall increase in TB case detection. This increase (shown above in table 1) is mainly due to the focus given to enhance the diagnosis and treatment of all forms of TB including clinically diagnosed pulmonary and EP TB since 2006 through establishing collaboration with Chest Diseases Clinics, medical colleges and specialists and by conducting training for doctors on x-ray reading. Besides training of the doctors, support to patients was also provided for diagnostic examinations e.g. X-Ray and biopsy costs utilizing GFATM fund. All these efforts have contributed to an increase in clinically diagnosed pulmonary and extra-pulmonary TB patients during the period.





The decreasing trend of re-treatment patients could be explained as a good indicator of programme performances. At start of the project, during the year 1995 most of the re-treatment patients registered by the project were treated previously outside the NTP by the private providers, as such the proportion of re-treatment patients among all smear positives (PBC) at that time was 29%. Over the years this proportion has come down to and remained at around 8%



which explains the good referral linkage with the private sectors and better accessibility & acceptability of NTP services. Almost all of them are from NTP regimen's failures, relapses and returns after lost to follow up who returned back for re-treatment.

The DF projects achieved an average case notification rate of 105 per 100,000 population for all forms and 47 per 100,000 population for Bacteriologically Confirmed TB patients in 2019.

There was an increase in trend of notification rate from 90 per 100,000 population in 2017 to 96 and 105 per 100,000 population in 2018 and 2019 respectively whereas there was almost no change in CNR of Bacteriologically Confirmed TB Patients. Therefore, the overall trend of increase is not significant enough to conclude on the reflection of real current epidemiological situation in the project area.





New Pulmonary Bacteriologically Confirmed (PBC) TB case notification varies significantly among the different regions. In the Northern region (greater Mymensingh) the notification rate of new PBC patients has always been higher (58 per 100,000 population) than in the other two (greater Rajshahi around 39 and greater Faridpur around 30 per 100,000 pop) regions. The same variation in notification rates for pulmonary clinically diagnosed and extra-pulmonary TB patients has been observed between these regions which might indicate low level TB prevalence in these (greater Rajshahi & Faridpur) regions.





Analysis of data also shows that despite significant increase in presumptive TB patients in all the 3 regions with significant efforts, the PBC case notification did not increase in those two regions - only very little in fact as shown in graphs 4 and 5-7.



Graph 4: DF region wise trends in TB presumptive per 100,000 populations







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Taking into account the good quality of microscopy services in the project area and standardized screening system of presumptive, it could be concluded that TB is not equally distributed all over the country. The WHO thus recommends use of notification trends to assess performances of TB control programmes and does no longer recommend using national estimates for the sub-national level.

2.2 TB control activities in workplace (Dhaka Export Processing Zone)

There has been a rapid urbanization trend in Bangladesh leading to the development of several factories in urban and peri urban areas both in organized and non-organized ways. Poor people from rural areas migrate to work in those factories where the working condition is often unhealthy with overcrowding and poor ventilation. These poor workers are often paid low and several workers also share a small room for their living. Such living and working conditions are the most favourable environment for easy transmission of highly communicable tuberculosis disease. Considering the situation DF started TB control activities in 2004 in Dhaka Export Processing Zone (DEPZ), a government-controlled workplace, located near Dhaka where more than 100,000 workers are engaged in processing export goods and most of them are young female workers. Since the start of the programme in DEPZ, DF has observed a higher TB incidence among the workers compared to the general population. The female ratio among detected TB patients in this workplace is almost three times compared to the general population. The graphs below show the trends in presumptive and TB patients per 100,000 workers:



Graph 8: Trends in presumptive TB patients and new PBC TB patients per 100,000 population in DEPZ

Considering the growing expansion of industrial factories, DF planned to strengthen TB activities in newly industrialized DF border districts involving the private sector. Situation analysis involving the workers who got admitted in DF hospitals indicated they are unawaren about the availability of TB services near their workplaces. As a result, they first seek care from private pharmacies and return home when they do not improve. In order to increase



awareness on TB among factory workers and the factory owners and managers, DF organized orientation and advocacy sessions for them. Moreover, DF also improved the record keeping & reporting at existing TB clinics in industrial areas for the factory workers. As a result, in 2019 a total of 1184 TB patients were diagnosed among workers of different factories in DF area and put them on treatment. It has been observed that the notification rates are higher among these worker populations compared to the general population.

The TB treatment success rate has been maintained above 85% since 1995 and 90% or above since 2012 with a low rate in unfavorable outcomes (death at around 4%, lost to follow up at less than 1%). The ability to detect a good proportion of failure patients (1.4%) is a good indicator of sputum smear microscopy quality. The average success rate for all the projects was 92% for the cohort 2018. The graph below shows the trends in TB treatment success rates since 2003.





2.3 Tuberculosis in children:

Child TB diagnosis is a global concern given the continued under-detection of TB among the child population. Children remain the most vulnerable in contracting TB from adults. Diagnosis of TB in children remains very challenging, especially in Bangladesh where there are inadequate diagnostic facilities and specialists for detecting Child TB patients. Presentation of symptoms of childhood TB is different compared to adult TB. Young children cannot produce good sputum. Microscopy of sputum smear often cannot detect the bacilli as the number of bacilli is few in the sputum of children. Analysis done by the DF project in the past showed a sputum positivity rate among children presumptive for TB of 1% compared to 6-7% among adult symptomatic TB.

Estimating the incidence of TB among children is difficult and the published estimates $vary^{4/5}$. The study conducted in one DF upazila during 2009 in collaboration with ICDDR, B showed a child TB prevalence of 52 per 100,000 children. This study seems to have provided important evidence on under-detection of child TB patients in Bangladesh which helped the NTP Bangladesh to adopt strategies to increase child TB patients throughout the country. In order to improve child TB case detection, the Damien Foundation in collaboration with the Centre for Women and Child Health (CWCH) conducted a study to evaluate the effectiveness of algorithm for detection of child TB and effectiveness of community awareness in enhancing diagnosis of child TB which also support the above findings⁶. An increase in child TB detection in the study clinics was also observed.

Efforts at improving diagnosis of TB among children were continued in 2019 through coordinating with government doctors on diagnosis of childhood TB. Despite the decrease in finding resulting in the decrease in training sessions for doctors (last training organized by DF for a total of 80 doctors involving the eminent national level child specialists on diagnosis of child TB in 2008, there has been gradual increase in the absolute number of child TB patients in DF area. The proportion of child TB patients among new registrations have also been higher in the DF area (around 5% among all TB patients) compared to the other parts of the country. The graph below shows the number of child TB patients diagnosed in the DF project area.

⁴ Epidemiology and disease burden of tuberculosis in children: a global perspective. Infect Drug Resist, 7:153-65, null 2014.

⁵ World Health Organization. Global tuberculosis report 2014. World Health Organization, Geneva; 2014. (WHO/HTM/TB/2014.08).

⁶ Intervention to increase detection of childhood tuberculosis in Bangladesh; INT J TUBERC LUNG DIS 16(1):70-75





Graph 10: Child TB detection from 2008 to 2019 in DF working areas

Chemoprophylaxis using Isoniazid tablet (initially 5 mg per kg body weight, later on changed to 10 mg per kg body weight) for 6 months is being recommended for children aged below 5 years not suffering from TB who are close contacts of a Pulmonary Bacteriologically Confirmed (PBC) TB patient. The Isoniazid Preventive Therapy (IPT) prevents two severe forms of TB in children, namely milliary TB and TB meningitis. A total of 38,931 children received chemoprophylaxis during the last 9 years, of which 6344 in 2019. Enrollment rate of children under chemoprophylaxis was around 99% in 2019 while completion rate among children enrolled during 2018 was 88%.

2.4 TB in prisoners and other vulnerable groups

It was found from several surveys that the prevalence of TB is higher in prison compared to the general population. The reason of this higher prevalence is due to the fast spread of TB in poorly ventilated, densely crowded living conditions in the prisons. Prisoners often have limited access to the health care services and the health care service providers also have limited access to the prisons are restricted places. For this reason, very little is known about the severity of TB in the prisons of Bangladesh. The foundation in collaboration with the NTP Bangladesh organized a survey in the 4 jails of Rajshahi, Noagoan, Nawabganj and Tangail districts in 2003. The findings were that the TB prevalence in the surveyed jails is 152/100,000 population compared to 79.4/100,000 population among the general population. Since then DF has established a referral linkage with the local jail authorities and health personnel. DF staffs are informed if TB presumptive are identified among the prisoners and sputum samples are collected by prison health staff. DF staffs regularly visit the prisons to collect sputum samples. During 2019, from 9 prisons of DF working area 32 TB patients (28 pulmonary bacteriologically confirmed, 1 pulmonary clinically diagnosed and 3 extra-pulmonary TB patients) were diagnosed and started treatment. The prison health staffs are engaged in providing DOT inside the prison and DF staff is informed when a prisoner is released for further arrangement of treatment engaging a DOT provider from the resident upazila.

2.5 TB HIV co-infection

TB remains the most common opportunistic infection among HIV infected people in high TB burden countries like Bangladesh. TB-HIV co-infection leads to rapid progression to TB disease and earlier deaths. Fortunately, HIV prevalence among Bangladeshi adult population and TB patients is still low (<0.1%) but rising, and the prevalence is higher in high-risk groups such as intravenous drug users located in some hot spots (in 23 districts). As such HIV testing services are limited to those district spots only and DF has been referring TB patients with high risk behavior (if any) to the available nearest HIV Counseling and testing centres.

2.6 MDR/RR – TB

Since 1997 DF started to treat MDR-TB patients using a succession of standardized regimens under operational research conditions, which led to the identification of a highly effective, safe, short and relatively cheap regimen initially resulting



in close to 90% cure with minimal bacteriological failure or relapse, and without amplification of second-line drug resistance. Treatment success has been maintained at above 85% during recent years because of earlier detection of fluoroquinolones resistance through slide DST and enrolling them on appropriate treatment though the potent fluoroquinolone (gatifloxacin) had to be replaced by a weaker one (levofloxacin) because of its unavailability in the market. WHO is trying to get it back in the market and is looking for manufacturers & suppliers through GDF.

DF has developed locally appropriate, low cost, simple and safe laboratory screening and drug susceptibility testing methods (FDA vital staining; slide DST) which has led to an increasingly early screening, diagnosis and treatment of such patients. Currently 4 very simple laboratories in DF areas are capable of delivering min. 95% correct diagnoses of TB resistant to rifampicin, fluoroquinolones (high or low level) and 2nd-line injectables, besides its differentiation from non-TB mycobacterial disease, and this within 2 weeks.

This "Bangladesh MDR regimen" was also adopted by The Union as "its" MDR regimen, and it was being formally evaluated in two trials, one in 9 francophone African countries, not randomized and the other, the UK Medical Research Council and the Clinical Trial Unit of the Union, implemented a clinical trial named STREAM (Standardized Treatment Regimen of anti-Tuberculosis Drugs for patients with MDR TB), a randomized controlled clinical trial, in South Africa, Vietnam, Mongolia and Ethiopia. Complete result of the stage 1 of STREAM trial became available in late 2018. In stage 2, two new regimens are included with stage 1: one of them is a 40 week regimen with bedaquiline, clofazimine, ethambutol, levofloxacin & pyrazinamide supplemented by isoniazid and prothionamide for the first 16 weeks and the other is 28 week regimen with bedaquiline, clofazimine, levofloxacin & pyrazinamide supplemented by isoniazid and prothionamide supplemented by isoniazid & kanamycin for the first 8 weeks⁷. Following an expert review of available observational study findings on shorter regimens, the WHO updated it's guideline⁸ in 2019 including the shorter regimen for use under certain programmatic conditions.

Observing the excellent results obtained by DF Bangladesh and following the WHO endorsement, several countries -including NTP Bangladesh -, adopted and expanded this short course regimen, 62 countries with about 10.000 patients by the end of 20179. NTP Bangladesh adopted and started expansion of this regimen throughout the country in 2018 using moxifloxacin as the core drug and continued strengthening the services for MDR TB patients. DF Bangladesh also adopted this national regimen for MDR/RR TB patients since 2018. A total of 1,243 DR TB patients were enrolled in Bangladesh during 2019, out of which 1,020 were on shorter and 223 on longer regimen. The number of MDR/RR TB enrolled in DF area in 2019 on shorter regimen were 249.

2.7 Tuberculosis Infection control

Infection prevention and control (IPC) aiming at protecting healthy people from the sick remains an important step in TB control programme especially when M/XDR TB is posing threat to the achievements made so far in this disease programme. Infection control measures were established in DF hospitals since its inception through ensuring separate rooms for MDR TB patients from non-MDR TB patients, smear positives from smear negatives and Extra-pulmonary TB patients. Adequate ventilation and fresh air circulation in hospital ward rooms (removing the TB droplet containing air) have been ensured in all the DF hospitals through keeping the doors and windows open and installing adequate exhaust/ ceiling fans. Health education among hospitalized patients on safe sputum collection (in 2-5% phenol solution containing buckets), cough hygiene and cough etiquette is being continued routinely. Surgical masks are routinely supplied to all hospitalized patients in DF and Rajshahi Chest disease hospitals and their regular use and cleaning have been ensured by the nurses. In the clinics, the infection control measures have been ensured through arranging the different assets (cupboard, tables, chairs etc.) and through modifying the sitting arrangements taking the airflow into account. Practice of ensuring infection control measures have been incorporated in routine supervision visit checklist.

2.8 Continuing special efforts for finding missing TB patients:

National TB report shows that there are about 25% missing TB patients in Bangladesh although there is no clear picture about volume of local/district level missing patients as the prevalence survey did not show any local level prevalence. In 2019, Damien Foundation Bangladesh continued to finding missing TB patients actively in DF area through micro planning and strengthening contact tracing. The Micro-planning initiative was first designed and implemented in last two quarters of 2017 by analyzing the information of recent TB prevalence survey 2015-2016 in Bangladesh. The prevalence survey indicates that more use Gene Xpert and digital X-Ray technology can be helpful for finding out missing TB patients. Accordingly, all projects of DF Bangladesh prepared their own plan up to upazila & union level to find out the missing presumptive TB patients, bring them to microscopy, GeneXpert, X-Ray and other tests with the help of GFATM supported social/diagnostic support and reprogramming activities. Due to continuation of this special effort increased diagnosis of TB patients continued for last three years. TB case detection was 2760 higher in number in 2019 in comparison to that in 2018. Following graph shows the comparison of TB case finding in 2017, 2018 and 2019 –

⁸ Available at: https://www.who.int/tb/publications/2019/consolidated-guidelines-drug-resistant-TB-treatment/en/



⁷ Accessed online at: http://www.newtbdrugs.org/pipeline/trials/stream-trial-stage-2



Graph 11: The following graph shows the increase in TB case finding from 2017 to 2019

3. Leprosy

Following the achievement of the elimination status⁹ in 1998 at national level, leprosy has no longer been considered as a major public health problem in Bangladesh. Since then the interest in leprosy by health care providers decreased significantly resulting in a sharp decline in leprosy case detection in the country, e.g. a decrease of about 63% in 2019 (3638) compared to 2002 (9844).

Despite the elimination status, Bangladesh remains one of the countries worldwide detecting around 3600 new leprosy patients annually. About 40% of the geographical area in Bangladesh is covered by leprosy NGOs whereas the government provides services for the remaining 60%. It has been observed that among the total new patients detected in Bangladesh more than 70% patients are detected in the NGO covered area. It thus seems that there is a serious under-detection in the area covered by the government.

Among the 275 new leprosy patients detected in 2019 in the DF area, 52.7% were MB leprosy and 33.1% of MB patients were skin smear positive. The decreased proportion of MB leprosy patients with skin smear positive (32%) might also indicate their early detection. The proportion of children among new patients was 10.8% in 2019. Among all new leprosy patients 117 (42.5%) were female.

Overall disability G2D rate in 2019 in DF area was 14.9%. This rate of disability might be due to the decreasing awareness and lack of diagnostic skills among health care providers i.e. delayed referrals by health care providers. Internal migration from rural to urban areas for seeking income generation is a big problem in Bangladesh. Poor people return from urban working area to their home village for care seeking when they become sick. This is because health services in rural areas are much cheaper - low cost village doctors and private chambers as well as easily accessible UHCs – as compared to services in urban areas with huge expensive private providers. This might also explain the higher disability grade 2 rates among newly detected patients in the DF working rural areas.



Graph 12: New Leprosy Detection, Proportion of MB & disability grade 2 in DF Bangladesh, 2004 – 2019

⁹ Defined as <1 prevalent case per 10.000 population.



Contact checking (active case finding) remains an important part in sustaining leprosy case detection in situations where the leprosy endemicity is low. Sustaining the level of community awareness (indicating voluntary reporting) is also a difficult task in such low endemic situation. The graph below shows the trends in leprosy case reporting indicating the sources.





High treatment success (>95%) has been maintained for both PB and MB leprosy patients in DF Bangladesh project during the last several years. These rates for PB was 98% and for MB 96% during 2018.

However, the high proportion (53%) of multi-bacillary infectious patients among the newly detected Leprosy patients, higher (10%) child proportion and high (15%) grade-2 disability indicates the late diagnosis and continued spread of diseases in the community. This situation along with the need of lifelong care for deformed leprosy patients indicates the importance for the DF project of continuous and intensified support and care for the leprosy component.

3.1 Care of Leprosy patients (Prevention of Disabilities - POD)

Leprosy, being a disabling neurological disease, leaves affected persons with permanent disabilities if not detected early and treated properly. Disabilities and deformities require lifelong care to prevent further deformities and disabilities. Hence prevention and care of deformities and disabilities are the most important aspects of leprosy management. This could be achieved by early diagnosis and judicious treatment both of the disease and of any reaction/neuritis that occurs. Every step is taken to prevent further development of new disabilities through routine follow up, early diagnosis and prompt management of nerve-function-impairment (NFI), supply of protective foot-wears, teaching on self-care etc.

The main objective of POD activities is: minimum additional disability apart from that which was present at diagnosis through teaching patients with disabilities on self-care and through providing protective foot-wears & ulcer cares. Since the beginning (1972), DF has been providing passive care to limit further disability and deformity by asking them to report voluntarily for any problem after completion of MDT. Additionally, from the year 2008 to 2017, DF took the special initiative for prevention of disability and deformity by active surveillance of all patients whether new or completed MDT by means of observing 'POD DAY' in every clinic once a year. The main objectives of POD DAY were to promote self-care by the patients and to optimize the skills of all field staff to limit the disability due to leprosy. To organize a successful POD Day, all clinic staffs were informed for their presence in the clinic about the Pre-POD visit by the physio-technician (PT), visit by PT one month prior to the POD Day. This POD Days has now been transformed into regular POD visits by Physio Technicians and MOs. For POD visit to a clinic, the clinic staff including the TLCO are informed so that they can make a good planning arranging effective POD activities including the listing of patients under care and to inform them, checking the stock of POD materials, prepare list of patients for reconstructive surgery and other supports needed. TLCAs also gain more confidence and improve their skill on patient management through this POD activity.

General counseling on self-care to limit further disability through **Peer Education** by the selective patient is performed on the POD day. Individuals are taught on self-care, ulcer care and active & passive exercises. A 'Self Care Kit' box containing all the basic materials for simple ulcer care, anesthetic hand and foot care, is provided to all patients to take immediate care at home when necessary. Protective footwear is also distributed on POD day. Since 2017, the POD Day

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has been integrated in the regular field visit program of the physio-technician, where leprosy patients are informed to attend the clinic on the day of physio-technician's visit to the clinic. The clinic staff and physio-technician jointly provide necessary support services to the patients who attend the clinic. For the care of patients having anesthetic feet, a total of 1088 pairs of MCR shoes were supplied during 2019.

During the year 2019, a total of 321 leprosy patients were hospitalized for the management of different types of complications in the three DF hospitals, 72% of them were hospitalized for ulcer management and for special type of shoes. Around 16% of them received septic surgery as a management of ulcer care.

4. DF Reference laboratory and Quality Control of laboratories

The Damien Foundation culture laboratory located at Netrakona started L-J culture in 2002 under close supervision of the mycobacteriology laboratory of Institute of Tropical Medicine, Antwerp, Belgium. This lab has been serving at the central role for laboratory aspects of all researches in Damien Foundation in Bangladesh.

Netrakona laboratory provides technical supports to the DF project laboratories located at the project offices. GeneXpert machines in the NKLab and in DF project laboratories are being used as a screening tool for DR TB besides the Xpert machines at the district and Upazila level clinics in DF working area. Slide DST is routinely performed besides L-J culture DST for all sputum samples collected from all RR/Rif Resistant TB patients at start of enrollment and the initial strains are also routinely sent to the Antwerp lab for first- and second- line DST through Netrakona lab.



DF DST Lab at Netrakona

Along with L-J culture DST, FDA staining was used as the screening tool for identification of MDR TB presumptive patients and slide culture DST (which gives results in 2 weeks) for detection of MDR TB. This laboratory procedure requires very minimal equipment and infra-structure which was also established in other project laboratories afterwards. Later on, since 2012, the game changer revolutionary technology, Gene Xpert machine was made available in all DF hospital- based laboratories. This technology can detect the presence of MTB in sputum specimen and the presence of rifampicin resistance only in about 2 hours. Since then Gene Xpert has been used as a screening tool for detection of



rifampicin resistance. Slide DST has been used for GeneXpert RR samples to detect SLD resistance. L-J culture DST has been performed if X-pert MTB/RIF test shows RR (Rifampicin Resistance) and for routine monitoring of MDR TB treatment and other extensive DST for diagnosis of pre-XDR TB in DF area.

Quality Assurance (QA) system for all other laboratories of DFBD has been developed through a regular monitoring mechanism by this DF- Reference lab at Netrakona, which is working with the full technical support of SRL, Antwerp, Belgium. This laboratory serves as 2nd controller for QA system. Netrakona lab is also providing full assistance for DF clinical and lab related researches, e.g currently supporting the lab aspect of MDR TB study. Different trainings on (LED) microscopy as well as on slide-DST and Liquid-DST (LJ-DST) are performed in Netrakona.

Primary culture is done in Netrakona lab as well as conventional LJ_DST and around 50% is sent in Antwerp. Culture is done at Netrakona reference lab on LJ medium. Netrakona DF reference lab strains isolated on LJ have been referred systematically to Antwerp supra-national reference lab (SRL), but because of workload the selection has been narrowed recently.

For 2019, Reference laboratory processed 3983 primary culture and 559 LJ-DST, 61 slide DST and 1232 Xpert test. Netrakona lab also sent one strain for each MDR patients before the treatment start of MDR/Pre-XDR and also NTM strains those are asked by ITM. LJ- DST in Netrakona is done only for Rifampicin, kanamycin and Ofloxacin that is giving reward to find out Pre-XDR and XDR. This laboratory works as the EQA 2nd controller for sputum microscopy of whole DF-Bangladesh. Netrakona Lab. is also participating for EQA of WHO for 1st line and 2nd line drugs for phenotypic for 1st and 2nd line and genotypic for Rif also. EQA of SSS (Slit skin smear) is also done in nklab for DF-Bangladesh.

Netrakona lab passed for WHO round 24 and a certificate has been given for phenotypic test for Isoniazid, Rifampicin, Ethambul and Levofloxacin and for 2nd line injectable drugs Kanamycin, Amikacin and for genotypic test of Rifampicin as well.

5. HOSPITAL ACTIVITIES

Besides 160 field clinics, DF also runs three hospitals with a bed capacity of 255 to take care of complicated leprosy and TB, including MDR TB patients for about 33 million population in DF area in Bangladesh. These hospitals are situated in Jalchatra - Madhupur, Raghurampur – Shambhuganj and Anantapur (Baluakanda) under Tangail, Mymensingh and Netrakona districts respectively. During the year 2019 a total of 1387 patients (TB: 1060 Leprosy: 321 and General 6) received care from DF hospitals. As the complicated patients and patients with very poor general conditions are normally referred to hospitals for intensive care, the death rate among hospitalized patients are likely to be higher than the patients treated ambulatory from the field clinics. But the death rate among hospitalized TB patients was lower (2.8%) compared to the overall death rate among all TB patients including those treated in the field (5.4%) which indicates the high-quality services provided by DF hospitals or the timely referral. The average bed occupancy rates foreseen per disease category and duration of stay in different DF hospitals are shown in the table below:

Table 2: Bed Occupancy and duration of stay

	ТТЬСР		MTLCP		NTLCP			
	Leprosy	ТВ	General	Leprosy	ТВ	Leprosy	ТВ	
Subtotal	32%	51%	2%	45%	41%	62%	48%	
Total 44%			43% 50%		0⁄0			
Duration of stay in days								
Average	25	21	6	40	53	25	19	

Overall bed occupancy in Jalchatra, Mymensingh and Netrakona hospitals was 44%, 43% and 50% respectively during 2019. Admission rate among the smear positive patients registered during the year ranges from 5% to 12% among the three hospitals.





Graph 14: Trends in hospital bed occupation



Health Education at DF Hospital

Table 3: Reasons of TB admission – 2019

Hospital	Complication	Poor general health	Drug reaction	DOT	MDR	Other	Total patient
TTLCP	111 (27%)	185 (45%)	74 (18%)	0 (0%)	41 (10%)	0 (0%)	411
MTLCP	17 (8%)	98 (47%)	8 (4%)	0 (0%)	66 (32%)	18 (9%)	207
NTLCP	152 (34%)	205 (46%)	61 (14%)	0 (0%)	19 (4%)	5 (1%)	442
Total	280 (26%)	488 (46%)	143 (13%)	0 (0%)	126 (12%)	23 (2%)	1060



Hospital	Reaction & neuritis	Ulcer	Eye complication	Reconstructive Surgery	Other	Total patient
TTLCP	15 (29%)	32 (62%)	0 (0%)	4 (8%)	1 (2%)	52
MTLCP	26 (15%)	129 (75%)	1 (1%)	1 (1%)	15 (9%)	172
NTLCP	22 (23%)	69 (71%)	2 (2%)	0 (0%)	4 (4%)	97
Total	63 (20%)	230 (72%)	3 (1%)	5 (2%)	20 (6%)	321

Table 4: Reasons of Leprosy Admission- 2019

The organization runs an OPD for general patients from Jalchatra hospital (TTLCP) to serve the local community and ensures twenty-four hours emergency service for the general patients. During the year 2019, a total of 21,704 general patients came for consultations at the OPD and a total of 426 patients received emergency care, out of which 310 were out of office hour.

6. Advocacy Communication & Social Mobilization (ACSM)

ACSM has been continuing from the period of MDG and Stop TB strategy to the SDG of End TB Strategy (up to 2035) as an important component of the TB control programme to address four key challenges like, improving case detection and treatment adherence, combating stigma and discrimination, empowering people affected by TB and mobilizing political commitment and resources for TB.

The objectives of ACSM are to increase awareness, bring about behavioral change, influence social norms, and expand community support in TB control programme those are important for sustaining community level support for TB activities. In line with the Global and National strategy the Damien Foundation Bangladesh (DF) is actively involved in disseminating TB & Leprosy related health messages through a variety of communication channels to improve and sustain TB & Leprosy related safe behavior among the individual and community. These are as follows:

- Community & OPD health education
- Orientation of village doctors
- Meeting with cured TB patients/elites of the community (TB club meeting)
- Orientation of MO/GP
- · Meeting/orientation with different NGO staff/Govt. health service providers
- Health Education in out-patient and indoor department of health service providing institutes
- Dissemination of TB message through cable TV network
- Mobilization through miking at community/market places for and mobilization through house to house visits
- Patient to patient education for self-care
- Observance of World TB & Leprosy Day
- Training and refresher course for own staff



Community based health education

Table below shows ACSM	activities in	1 2019	at a	glance-
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Training/Orientation and other ACSM activities conducted in 2019						
Activities	Session Conducted	Participant Attended				
Training/Orientation/Refresher						
Training for Village Doctors, Pharmacy Holders (1 day)	104	2596				
Orientation for Medical Doctors (Public-Private)	26	511				
Other ACSM Events						
TB Club Meeting	208	5399				
Health Education session at community level	204,398	1,252,030				
Health Education in Out Patient Department (OPD) of Upazila Health Complex, Sadar Hospital, Medical College, Sub Center, Community Clinic	65,279	1,042,142				
Health Education session in Indoor of Upazila Health Complex, Sadar Hospital, Medical College	18,661	312,050				
Health Education session in Damien Foundation clinic/treatment center	205,787	679,528				
Dissemination of TB message through cable TV network	39 units in 2019; 10-15 times for each unit per day					
TB Campaign at Sub district/Urban areas (Remote and underserved areas)	408					
World TB and Leprosy Day celebration	Vorld TB and Leprosy Day celebration Celebrated at National and local level: total 207 events					

World TB Day and World Leprosy Day of this reporting year have been observed on 27 January 2019 and 24 March 2019 respectively in all 113 DF working upazilas. The days were observed in collaboration with local govt. health authorities and other stakeholder through rallies with banners, placards, cap & T-shirts and meetings for sensitization and raising people's awareness. There were also some special events in some projects like intensive extended contact survey to find out missing leprosy patients.

The impact of several ACSM activities and dense network of services ultimately plays an important role in the promotion of TB service facilities in the community, which leads to early diagnosis. As a result, the main duration of diagnostic delay (patient delay plus health service delay) for TB is decreasing. The overall delay is continued at less than 2 months in all DF projects till 2019. The delay in case of females to total patients is almost similar as the delay for males.

Graph 15: Diagnosis delay in 2019 - project and gender wise

7. Engaging all care providers and community

7.1 Public-public and public-private mix approaches

Engaging all care providers through public-private mix (PPM) approaches is an important core component of TB Control Programme. The engagement of all relevant health-care providers is essential to meet the TB-related Sustainable Development Goals and reach the targets for TB Control Programme.

In the project area, Damien Foundation successfully involved all health institutions belonging to public sector health care networks, such as public hospitals, health care providing facilities at rural levels, medical college hospitals, prison health facilities and workplaces.

Besides, a large number of non-graduate private practitioners (village doctors), graduate medical practitioners, private hospitals and NGO health facilities were involved in referral of presumptive patients and providing DOT.

Medical Officer (MO) & General Practitioners' (GP) orientation

Non-Graduate PPs (VD/Pharmacist) orientation

Graph 16: The graphs below shows contribution to referral of presumptive and case detection by different providers and sources.

Graph 17: The graphs below shows contribution to TB case detection by different providers and sources.

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Graph 18: Mode of Leprosy Presumptive Referral

Graph 19: Mode of Leprosy Patients Detection

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7.2 Partnership with the Village Doctors

Over the period, the Damien Foundation partnership with the Village Doctors (VD) has been proven as one of the most effective and sustainable approaches; thus, the partnership with the VD was continued in 2019. The Village Doctors continued their important role in contributing to case detection by referring Presumptive and providing DOT services to the community as in previous years.

Village Doctors' (VD) Orientation

Village Doctors in 2019

DF Efforts	in 2019 with	VDs	Contribution by Village Doctors		
	Session	Participants		Presumptive	Patients
Training (1day)	104	2596	TB (Number)	20,931 ,	1,118
			% among all	5%	8%

In addition to the referral, the Village Doctors were involved as DOT providers for 12, 346 TB patients, which is 52% of total DOT in the year.

Graph 20: Trends on Contribution from village doctor during last 9 years

The graph shows a slight decrease in contribution in referrals and case detection from VDs in compare to last year, this was probably due to increase referral from Government Medical Officers, Graduate Private Practitioners and Govt. Health staff as well as more involvement of some VDs in other work, especially with the local clinics for more income by referring patients to them.

It is to be mentioned here that there was an emphasis for enhanced linkages with them in recent years in order to detect more Pulmonary Smear Negative and Extra-pulmonary TB patients. Last four years report shows that referral of TB presumptive by Govt. MO and GP has been slightly decreased from 14% to 13% from 2018 to 2019. But, their contribution in TB case detection has been increased from 29% to 32% from 2018 to 2019. Although the referrals of TB presumptive patients by Govt. Health/Family Planning (FP) staff and community Health Care Provider (CHCP) were same (27%) in previous two years their contribution in TB case detection increased from 20% to 22% from 2018 to 2019. Following graphs shows the trend of TB presumptive and case detection in last seven years (2013 to 2019) -

This increasing trend of involvement of field health staff seems a positive sign for sustainability.

7.3 Working with the Government Health & Family Planning staff and General Physicians

DF partnership with the Government Health Personnel is another cost-effective approach for case finding and case holding. During last year, this partnership approach has been strengthened.

Govt. Medical Doctors and General Practitioners in 2019

DF Efforts in 2019 with Medical Doctors (GoB MOs & GPs)			Contribution by Medical Doctors		
Session	Participants		Presumptive	Patients	
26	511	TB (Number)	53,926	4,255	
		% among all 13%		32%	
		Leprosy (Nr.)	618	81	
		% among all	5%	31%	
	Session	Session Participants 26 511	Contribution Session Participants 26 511 511 TB (Number) % among all Leprosy (Nr.) % among all	Session Participants Contribution by Medical I 26 511 TB (Number) 53,926 % among all 13% Leprosy (Nr.) 618 % among all 5%	

In the project area, the Govt. Medical Doctors continue their support in diagnosing and managing complicated patients (both TB & Leprosy) at the early stages and facilitating different courses/orientation for other stakeholders.

Govt. Health & Family Planning staff in 2019

Support of the Government Primary Health Care Field Staff in referring presumptive patients to the clinic and monitoring of DOT in the community has been continued as in previous years.

DF Efforts in 2019 with Plannin	Govt. Heal g staff	th & Family	Contribut	ion by Govt. Healtl Planning staff	n & Family
	Session	Participants		Presumptive	Patients
Review meeting/	22	2008	TB (Number)	104,592	23 09
Orientation (1 day)	tion (1 day) 22 2008 % among all 26% 20%				
			Leprosy (Nr.)	660	8
			% among all	2%	1%
Desides as from 1 Cost Health	9 ED -4-6	C 1	·	DOT A total of 2	700 TD (' (

Besides referral, Govt. Health & FP staff play an important role in providing DOT. A total of 2,723 TB patients received DOT under their supervision in 2019, which is 11% contribution to the total DOT. Their involvement increased the DOT expansion in the community, which is very important to improve patient friendly access to the services and enabling community participation in TB control for enhancing sustainability.

7.4 Empowering patients and communities

Considering the pivotal role of Advocacy, Communication and Social Mobilization (ACSM) in the field of TB control and Leprosy elimination the ACSM activities have been continued in collaboration with the Government (NTP & NLEP), with the financial support from the Belgian Government, Damien Foundation and GFATM.

The effect of several ACSM activities and dense network of services has been revealed through sustaining the referral of presumptive patients and increasing trend among certain group of people as well. The clinic staffs were involved with several ACSM activities besides routine activities on diagnosis, treatment and follow-up.

7.4.1 Working with the Former patients and Elites (TB Club Meeting)

The objective is to involve cured patients from the community to increase the case finding and to encourage them to refer presumptive TB patients and for early detection of new case and relapse. Since 2000, DF has emphasized involving former patients in the identification of presumptive TB patients from the community and for referring them to health centers. This involvement was extended to organizing "TB clubs" of former patients at the union level (a union is a small administrative unit with a population of about 20,000). The vast majority of the cured TB patients are from the poorest segment of the society, but their role in TB & Leprosy control activities has given them an identity as the best advocate to the community in terms of referral of presumptive TB & Leprosy patients.

DF Efforts in 2019 with	Cured Pat	tients and Local Elites	Contribution b	y Patients and	Local Elites
	Session	Participants		Presumptive	Patients
TB Club meeting at			TB (Number)	19,390	1062
union level (1 day)		Dationta 5 291	% among all	5%	8%
		Fatients- 3,301	Leprosy (Nr.)	756	26
	208		% among all	6%	10%
	208		TB (Number)	5,234	171
		Elites 224	% among all	1%	1%
		Entes- 324	Leprosy (Nr.)	176	0
			% among all	1%	0%
East and a stight is a line	•	1. C. (1	("TD: 11.2"		

Each cured patient is a living example for the community that "TB is curable".

TB Club Orientation

Graph 23: Contribution of former TB patients in referring presumptive TB patients and smear positive case detection during last seven years (2012-2019)

7.4.2 Health Education Activities in Community and Govt. Health Facilities:

Health education events do create greater social commitment and support behavioral change in order to ensure access to treatment and care for all, particularly the poor, vulnerable and hard-to- reach populations. The activities include disseminating accurate information on the diseases and dispelling myths about TB/Leprosy, educating and encouraging people with their family members to be more actively involved.

Several events of health education were conducted in the year 2019.

Details are in following table:

Health Education Activi	ties in 2018	3	Contribution f	from Health Educa	tional Activities
	Session	Participants		Presumptive	Patients
Health education					
session in community	204,398	1,252,030	TB (Number)	154 579	3 242
HE session in OPD				151,575	5,212
(UHC, SH, MC, FWC,	95,369	1,396,513			
SC, CC)			04 among all	280/	2404
HE session in INDOOR	18 661	212.050	⁷⁶ among an	3070	2470
(UHC, SH, MC)	10,001	512,050			
HE session in DF clinic	205,787	679,528	Leprosy (Nr.)	8,868	108
		,	% among all	69%	41%
TB Campaign	408		, o uniong un	0.2.70	
Total	524,623	3,640,121			

Health education activities help to enhance community participation which leads to increase awareness, promote health-seeking behavior, inspire dialogue, and heighten community concern and action for TB/Leprosy control.

7.4.3 Community participation in DOT expansion

In compliance with the components of the STOP TB STRATEGY: "Pursue High-Quality DOTS Expansion and Enhancement", Damien Foundation Bangladesh, since initiation of the TB control programme, has decentralized DOT to the community level to make it more patient friendly by involving VDs, GOB Health and Family planning staffs, other NGO staffs, cured patients, school teachers, religious leaders and local elite. In each Union, there are 5 to 6 Fixed DOT Providers (FDP) to provide DOT to the patients. Besides, there are other Non-Fixed DOT Providers also. The graph bellow shows the involvement of different categories of DOT providers in TB Control Programme, where about 52% of them are Village Doctors in DF project areas.

Graph 24: DOT Providers in 2019

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8. Operational Research in Damien Foundation Bangladesh

Damien Foundation Bangladesh conducted several operational researches next to its routine activities aiming at defining/establishing cost-effective means of diagnosis & treatment, documenting/validating different research findings/publications from other countries and to provide input to the national and international Health Agencies (WHO, IUATLD) to develop/recommend new tools and strategies for different NTPs based on study results obtained in DF Bangladesh.

8.1 Diagnosis and Management of MDR-TB

Since 1997 DF started to treat MDR-TB patients using a succession of standardized regimens of MDR TB under operational research conditions, which led to the development of a highly efficient, safe, short and relatively cheaper regimen initially resulting in close to 90% cure with minimal bacteriological failure or relapse, and without amplification of second-line drug resistance.

Additionally, DF has developed locally appropriate, low cost, simple and safe laboratory screening and drug susceptibility testing methods (FDA vital staining; slide DST) which has led to an increasingly early screening, diagnosis and treatment of drug resistant TB patients. Currently 4 very simple laboratories in DF areas are capable of delivering min. 95% correct diagnoses of TB resistant to rifampicin, fluoroquinolones (high or low level) and 2nd-line injectables, besides its differentiation from non-TB mycobacterial disease, and this within 2 weeks.

The more efficient but relatively expensive molecular diagnosis of rifampicin resistance by GeneXpert machines have been installed in 5 DF laboratories (donations from NTP/USAID) which are currently being used to detect RR TB patients. Sputum samples from RR TB patients are then processed for SL DST to detect drug resistance to quinolone and SLI drugs.

For these achievements in the field of drug resistant TB, DF Bangladesh received intensive support from the Mycobacteriology Unit of the Institute of Tropical Medicine in Antwerp, Belgium, with gradual transfer of capacity to its reference laboratories (the main one at its own hospital in Netrakona)¹⁰.

In 2019, enrolment of MDR TB patients on shorter 9-month regimen was continued. A total of 2,444 MDR TB patients have been enrolled under 9-month shorter regimen since 2005 and the enrollment during 2019 was 249 (120 from greater Dhaka division and 129 from Rajshahi division).

Despite increasing quinolone resistance, treatment success rate has been maintained at above 80% (84% in 2019).

8.2 Drug resistance monitoring

Monitoring the TB drug resistance in DF Bangladesh projects is in place since end of 1995, mainly through systematic referral of sputum from return after lost to follow up, relapse and failure patients, besides the random surveys done in 1995 and 2001. From May 2002 onwards, most primary cultures were handed over by Antwerp to the reference lab in Bangladesh (Netrakona). Netrakona lab started LJ DST in 2008 and since 2010 this lab is performing LJ DST independently under the direct supervision and control of Antwerp lab. Selective strains are sent for quality control to Antwerp lab besides the routine participation in proficiency testing. The total number of inoculated cultures has risen considerably during the years. Annually more than 3,000 sputum samples are processed in Netrakona lab, most of which belong to follow-up samples of MDR TB patients. Since 2004 following the introduction of rifampicin throughout intermittent regimen in the country, an increase in MDR TB rate was observed. The analysis of trends in RMP and Ofloxacin resistance incidence for all DF districts expressed per 1000 smear positive patients (new+Rett.), show at least that there is no increase in rifampicin resistance over the last several years. Considering only RIF-resistant isolates, fluoroquinolone resistance has reached 20%, and the trend seems to be increasing. Apart from MDR follow-up specimens, XDR and 2nd-line injectable resistance are virtually absent. NTP Bangladesh started 2nd national TB drug resistance survey in 2018. A total of 40 clusters were selected, all consecutive sputum smear positive samples were included in the survey. All sputum samples were transported to NTRL for GeneXpert testing and culture. Among the 40 clusters, there were 4 clusters belonging to DF working area. The survey is completed in 2019 and the results are expected to be published soon.

¹⁰ At present the DF Netrakona hospital works independently, with ITM Antwerp supporting only for data management, quality assurance particularly for the MDR DST, and advanced tests needed for study documentation and/or management of the most complicated cases (fingerprinting; DNA sequencing of resistant genes and tests on a wide range of second-line drugs).

8. 3 FDA staining and slide DST

Since mid-2008, slide culture and (FDA) vital staining are used decentralized by all DF Bangladesh projects, except for FTLCP where the lab is still suitable only for FDA. FDA staining was installed in 8 clinics of Greater Mymensingh, preparing for the OneRIF clinical trial on earlier detection of MDR-TB and effect of double dose rifampicin first-line treatment. FDA results at 2 weeks treatment was used as screening to define samples for further tests (GeneXpert, slide DST). Following the WHO recommendation to abandon Cat.2 for patients with INH resistance but not MDR TB, expansion of FDA staining is planned to more sites for strengthened Cat.2 study where FDA staining will be performed on sputum smears at start and at 2 weeks.

FDA staining of sputum smears is now being used for declaration of failure of MDR regimen: FDA result at least 1+ in 2 occasions one month apart from 5 months onwards, so failure of MDR regimen is declared at 6 months or later.

Slide DST is performed to detect 2nd line drug resistance. This test provides information on Kanamycin and ofloxacin results at different concentrations besides rifampicin in 2 weeks' time described in the laboratory section.

8.4 Six months MDT Regimen Trial for MB Leprosy Patients

Following the WHO recommendation in 2002 to launch trials of a uniform MDT of six-month duration for all the leprosy patients (PB and MB) with the regimen given to MB patients, Damien Foundation in collaboration with Danish Bangladesh Leprosy Mission undertook this study on MB patients during 2005 – 2006. MB patients under this study were followed up annually for 10 years to assess relapse rate.

Among 918 MB leprosy patients under six-months and 694 under twelve-months group, respectively 44% and 38% were skin smear positive, 20% and 23% were with Grade 2 disabilities at enrollment. Their mean Nerve Function Impairment (NFI) score was 83 for both groups at the time of diagnosis.

Respectively 98% and 96% enrolled completed their treatment in six-and twelve-months treatment. There were no differences in outcomes between the two groups in regard to WHO disability grade or degree of nerve function impairment over a 10-year period. Only one relapse was diagnosed in 10 years follow-up which occurred at 9 years follow up from a patient in the six-month treatment group.

8.5 Optimization of TB treatment regimen (One-RIF study)

Several studies¹¹ are currently ongoing globally to find new and shortened treatment regimens for the treatment of TB. Most of these studies focus on finding new/more efficient drugs for both drug- susceptible and - resistant TB. The DF project focused on optimizing the current TB treatment regimen by doubling the dose of rifampicin for drug susceptible TB. This new clinical trial using double dose rifampicin for new smear positive TB patients aged 15 years and older in the intervention group, was conducted in 8 clinics in 2014/2015, in collaboration with the clinical trial unit of the Institute of Tropical Medicine, Antwerp - Belgium. Early follow-up of sputum smear by FDA vital staining at 2 weeks along with X-pert testing of slow responders (speeding up diagnosis of MDR and start of MDR treatment) was used as screening tool. Enrollment was completed by the end of September 2015: 476 under intervention arm and 471 under control arm.

Among 347 intervention and 343 control patients, respectively 11.8% and 15.5% had an unfavourable outcome (death, failure, relapse or loss to follow-up) in primary efficacy analysis. In safety analysis, among 349 intervention and 352 control patients, respectively 4.3% and 2.6% experienced an SAE.

9. Human Resource Management & Development

9.1 Overview

To provide high quality healthcare service to the community and to ensure smooth functioning of 160 DF field clinics and 3 hospitals, a total of 591 local staff are involved. Out of this, 409 staffs are involved in carrying out the field activities under the supervision of 35 Supervisors (TLCOs, Sr. TLCO, Monitoring & Evaluation Officers and Field Coordinators) and 6 Medical Doctors. Among the field level workers 144 Field Workers are involved in community level active case finding activities. These Field Workers have been trained in identifying TB & Leprosy presumptive and in preparing smears. The male-female staff ratio of Damien Foundation Bangladesh is 2:1 in 2019.

11 Available at: http://www.newtbdrugs.org/pipeline/clinical

9.2 Workshop/Training course organized by Damien Foundation throughout the year 2019

To develop skills in different key staff, the DF Bangladesh organized several workshops in the year of 2019. A detailed schedule of the workshop/training is given below:

Name of Training Course/Orientation/ Workshop	Participants	Duration, place & organized by
TLCA basic training on TB and Leprosy	Total 25 C-TLCA: 7 from RTLCP, 4 from TTLCP and 14 from FTLCP.	Six weeks classroom training from 20 October 2019 to 28 November 2019 at Jalchatra DF training center and Six weeks filed training from 01 December 2019 to 15 January 2020 at respective posting places/areas.
Field Workers Basic Training on TB	144 Field Workers	Training courses organized total Five day's training courses were organized in three projects during February and March 2019 as follows: TTLCP: 3 batches (25 participants in each batch): 24-28 February, 3-7 March and 24-28 March in 2019. FTLCP: 2 batches 25 participants in each from 9-13 March and 18-22 March 2019. RTLCP: 1batch (25 participant) from 09 to 13 March 2019.
Orientation of Newly Recruited Medical Officers	Two Medical Officers (MOs) from Netrakona and Rajshahi	Two week's induction training organized for newly recruited to MOs of DF (Dr. Anika & Dr. Saqlain) in 2019. There was one-week theoretical part at DFCO & project office and one week practical part at Jalchatra hospital for them.
Training on VAT- TAX	Total 18 participants: 4 PDs, 7 Accounts personnel, 3 Office secretaries, 2 Logistic Officers, 2 others (Radiologist & Technical Officer)	A day long training on 19 August 2019 at Jalchatra training venue of TTLCP

TLCA Training on TB and Leprosy at Jalchatra

Field Workers' Training at Faridpur

9.3 Participation in different in-country training courses in 2019

To develop skills in different fields, DF staff members attended different in-country training courses in 2019, organized by NTP/BRAC/LTCC. A detailed schedule of the training courses & participants is given below:

Name of Training Course/Orientation/Workshop	Participants	Date, Duration & Organized by
Training Course on Leprosy for doctors	4 MOs from DF participated (FTLCP, MTLCP, TTLCP & RTLCP projects)	23-25 February 2019, organized by TLM at its training centre, Nilphamari.
6-day refresher training on LED Florescence Microscopy	32 DF clinic staff participated in 5 training courses	5 training courses organized by NTP at different places at different times in 2019: 2-7 Mar '19, 21-26 Sept '19 (2 courses in different places), 26-31 Oct '19 (2 courses)
2-day training on field level ambulatory MDR-TB patient management	43 DF staff participated in 11 training courses	11 training courses organized by NTP at different places at different times in 2019
3-day training on Gene X-pert testing	7 participants from DF participated in two training courses	Two training courses organized by NTP at NTRL: in 23-25 Sept. & 28- 30 Oct. 2019
Workshop on Prevention of Disabilities (POD)	Total 3 persons: 2 Physio Officer and 1 Physio technician	Two-day's workshop from 17 to 18 July, 2019, organized by LTCC at Khulna
Workshop on "Quantification, Forecasting and Early Warning System"	Logistic Officer from DFCO participated	22-23 September 2019, organized by NTP at MSH Conference Room, Gulshan, Dhaka.
1-day training on sputum collection and transportation from peripheral laboratory to Gene X- pert Centre (NTRL/RTRL)	10 TLCA from DF Naogaon district participated	Organized on 31 October, 2019 by NTP at NLP Conference Room, Mohakhali, Dhaka.
Training on electronic individual TB patient data recording and reporting (e-TB Manager)	Total 03 TLCAs from DF (Bakshiganj, Dewanganj & MMCH DOTs Corner)	21-22 December 2019, organized by NTP at Spandon Training Centre, Maskanda, Mymensingh
Refresher training for Laboratory Technician on LED microscopy/Gene X-pert	A TLCA from DF participated in the training course	12-16 December 2019, Organized by BRAC at BLC, Uttara, Dhaka.

Workshop on Income TAX & VAT with DF Management Team and Accounts Personnel

9.4 Participation in International training courses/meetings/conferences and provided Technical support by DF Bangladesh staff in 2019:

With a view to update knowledge and to share experience, DF Bangladesh staff members participate in different international training courses, meetings, conferences, workshops, seminars and also provided technical support by DF staff around the world. In 2019, the following DF staff attended conferences, meetings, training courses and provided technical support as focal person as per schedule below:

Conference/ Meeting /Training	Participants/focal person	Place, Duration & Organized by
SORT-IT Training Course	Dr. Fahmidur Rahman, Medical Officer	Held in Brussels, Belgium May 27-31, 2019
20th International Leprosy Congress	Dr. Zobair Hossain, M&E Specialist	Held in Manila, Philippines on 10-13 September 2019
Union conference on TB & Lung health	Dr. Aung Kya Jai Maug, Country Director, Dr. Dipak Kumar Biswas, Medical Coordinator Dr. Kamruzzaman Rony, Field Director Mr. Gish Uddin, M&E Officer	Held in Hyderabad, India from October 29 to November 02, 2019

10. Programme Management and Coordination

At the project level, overall implementation management of program is done through a team approach by the Management Team (MT). The Management Team is headed by the Project Director with the Hospital/Field Director, Medical Officer/consultant, M&E Officers/Field Coordinators/Senior TLCOs as MT members. The MT discusses the day-to-day management issues on weekly basis and decides on the major issues, including issues referred from TLCO meetings, on quarterly basis. They can also organize the MT meeting at any time to deal with urgent issues.

An important process of Programme Management and Coordination is the regular monthly TLCO meeting, where all TLCOs, FCs, M&E Officers/Medical Officers, Hospital/Field Directors and Project Director attend. The TLCOs, in fact, serve as the main bridge between the project office and the field clinics besides the project-based supervisors (doctors and M&E officer).

In depth analysis of monthly progress reports including performance, achievements, challenges and problems are done through active participation of the participants present, and decisions are taken, recommendations are made or action plans are adapted to improve the situation. Dissemination of information and instruction from national level, exchange of information between field clinic and project/DFCO, monthly clinic wise planning, settlement of bills and collection of monthly running / different costs of the clinics take place in these monthly meetings.

In order to assess case detection and results of health education activities, a manual geographic information system is maintained in each Upazila. This information helps to identify areas with low case finding and enables the staff to identify the barriers for that specific area and to act accordingly.

Information / instruction flow takes place mostly through emails between national level office and the project offices on a regular basis. Besides, mobile phone communications are used for urgent matters between national & project levels, and field clinics. In this way, the national office is kept updated on what is happening at any point at field level.

For facilitating better coordination representative/s from Damien Foundation Coordination Office at Dhaka also participated in some project level meetings of Management Teams and TLCO meetings and guided them.

11. Monitoring, Supervision & Evaluation 11.1 Internal monitoring, supervision & Evaluation

Damien Foundation is maintaining its monitoring, supervision and evaluation according to its Monitoring and Evaluation Plan. Monitoring of case detection, sputum conversion, results of treatment and quality control of smear microscopy are routinely done and evaluated quarterly. In addition, drug resistance surveillance is continued through routine sputum culture and DST of failure and relapse patients. Monitoring of MDR TB treatment through regular updating of MDR files are routinely done by DFCO. The quarterly collected data from the projects are being used to monitor the performances. Cross checking between different datasets allows assessing the quality of the data and feedback is given to the projects in order to improve the performances. Reports are cross-checked with registers and cards by supervisors during their supervision visits and feedback is given on the spot to the field staffs.

Monitoring of activities and supportive supervision of staff is done through field visits by different levels of staff. At the field level, TB & Leprosy Control Officers (TLCOs) are the first line staff for monitoring of the project activities in 3-4 upazilas (Sub-districts) each. They supervise the first line field staff, TB & Leprosy Control Assistants (TLCAs) / paramedics, Assistant TB & Leprosy Control Assistant (ATLCA) and Clinic Assistants (CAs). TLCOs monitor all the activities implemented at the field level, provide need-based support and build/strengthen the capacity of the field staff for better implementation or improvement.

A TLCO regularly visits each TB clinic/lab/UHC under his/her mandate to monitor and supervise at least once a week and check/cross-check the clinic documents including registers, reports, treatment cards and other records. S/he monitors case detection, sputum conversion, treatment results, quality control of sputum microscopy, and drug resistant and failure and relapse patients. S/he also pays need-based visits to the community and discusses with patients, DOT providers and other stakeholders to cross check status of DOT implementation, patient follow up, social mobilization and presumptive referral activities. Monitoring and follow-up of project performances is carried out through analyzing the achievements realized, compared to the planned activities and results. Quarterly and annual reports are used to monitor the project performances.

M&E Officer (M&EO), Medical Officer (MO) and Field Coordinator (FC) pay monitoring visits to a TB clinic/lab/UHC at least once in 3 months (quarterly) as well as additional visits based on the needs of the program/project. During the monitoring visits they supervise the activities of TLCO and other field staff, guide them, provide technical supports and build or strengthen their capacities through on-the-job training.

The Project Director, who is the overall responsible person of a project, and the Hospital Director/Field Director are the management staff at the project level of DF, and they also monitor field activities on a sample basis as well as according to the needs.

From the Damien Foundation Coordinating Office (DFCO), the Medical Coordinator, M&E Specialist and TB Coordinator visit the field especially for programmatic monitoring to provide professional and technical support. Finance Director (FD) and Finance Manager visit the field for need based monitoring purposes. The Country Director of DF also pays visits based on the needs of project management and to discuss strategic issues (program/project).

11.2 Supervision & monitoring from NTP & other Govt. Officials:

DF field projects, hospitals & clinics were routinely visited by the different officials of the government health services including Director MBDC/Line Director and other representatives from NTP, Civil Surgeon and other govt. officials.

Also top level personnel visited DF projects, hospital & clinics from Ministry of Health, Local Funding Agent (LFA) of GFATM, PR-BRAC of GFATM etc.

Visit of Line Director (LD) of National TB Control Programme

Visit of Civil Surgeon (CS) at DF Mymensingh hospital

Visit of Joint Monitoring Mission (JMM) Team (Multi-country)

11.3 Supervision by DF Brussels

DF Bangladesh project also supervised and monitored through regular communications and field visits from Damien Foundation head quarter in Brussels. In 2019, Mr. Patrick Suykerbuyk, Projects Director, visited DF Bangladesh project from 16 to 23 June; Mrs. Celine Ven den Bergh, Project Manager, visited twice: 8-24 March and 15-28 October, Dr. Nimer Ortuno Gutierrez, Medical Adviser, also visited twice: 8-24 March and 25 June-02 July.

Bangladesh visit (Mymensingh) by Mr. Patrick Suykerbuyk, Projects Director, DFB

Bangladesh project visit (Tangail) by Mr. Patrick Suykerbuyk, Projects Director, DFB

Clinic visit at Rajshahi by Ms Celine Van den Bergh, Project Manager, DFB

Netrakona Hospital visit by Ms Celine Van den Bergh, Project Manager, DFB

DF Quarterly Staff Meeting at Jalchatra

Rally on observance of World Leprosy Day 2019 at Dhamoirhat, Naogaon.

Rally in Rajshahi City on observance of World TB Day 2019

Presentation of CD of DF Bangladesh in Union Conference 2019 at Hyderabad, India

Participation of DF Bangladesh in Union Conference 2019 at Hyderabad, India

ex Table-1	Lep. beds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ann	TB beds	0	0	0	0	48	48	0	0	0	150	150	0	0	24	24	0	0	0	0	222
	Leprosy Control Assistants	24	12	7	5	16	7	6	7	7	24	Ø	11	5	26	11	9	ო	4	2	97
	TB Clinics	2	1	1	0	2	-	1	0	0	2		0	4	m	-	~	~	0	0	6
	Health Centers	1,078	545	332	201	958	593	365	267	267	1,106	389	489	228	982	268	262	149	166	137	4,391
	Upazilla Health Complexes	24	12	7	5	24	12	12	6	6	25	თ	11	5	24	ω	4	ო	4	5	106
eas	Hospitals	З	1	1	1	4	2	2	1	4	14	თ	4	-	7	с	~	-	~	-	29
ture in DF-ar	Population	7,775,296	3,897,148	2,452,049	1,426,099	8,859,707	5,667,678	3,192,029	2,440,906	2,440,906	7,437,214	2,811,480	2,778,693	1,847,041	6.767.759	2,039,422	1,192,426	1,188,751	1,122,337	1,224,823	33,280,882
Infrastruc	Square km	6,810	3,414	2,032	1,364	7,052	4,363	2,689	2,810	2,810	7,546	2,407	3,436	1,703	7,008	2,073	1,490	1,145	1,119	1,181	31,226
Government Health	District / Project	Tangail Project	Tangail	Jamalpur	Sherpur	Mymensingh Project.	Mymensingh	Kishoreganj	Netrakona Project.	Netrakona	Rajshahi Project	Rajshahi	Naogaon	Nawabganj	Faridpur Project	Faridpur	Gopalganj	Madaripur	Rajbari	Shariatpur	Total DF

Supportive activities over 2019

le-2		ons						-+	rapy	S						
ıex Tabl	0d0	consultati	21,704	0	0			21,704	Physiothe	session	490	20	0	0	0	510
Anr	ions for	Others	370	114	316			800	ears	Positives	87	99	21	63	21	288
	TB admissi	Retreatments	41	93	108			242	Skinsm	Total done	507	592	57	852	63	2071
	itients admitted	Reaction / other	16	43	22			81	ssions for	Opinion leader/ scout / NGO *4	20	21	10	25	29	105
	no. of Lep. pa	surgery / ulcer	36	129	67			232	minar: no. of se	Seminar / workshops* ³	0	0	0	0	0	0
						able	able		ref./sei	TB club	38	42	20	50	58	208
	te bed	oation	%	%	%	l, not applic	l, not applic	%	Drientation	VD / FDP*2	19	21	10	25	29	104
	Avera	occul	4	43	50	lo hospita	lo hospita	45	raining / C	GoB H & FP staff	0	0	0	0	0	0
ion						2	~		н	GP / MO	4	4	2	9	10	26
educat	's for	General	35	0	0			35	sions	Schools	268	549	304	3,758	816	6,324
d health	10. of bed-day	TB	12,915	8,932	8,513			30,360	ies: no. of ses	Community *1	57,644	102,434	27,922	163,716	172,907	524,623
ıg an	ations: r								Eactivit	Folk song	0	0	0	0	0	0
ıakir	pitaliza	eprosy	2,319	6,591	2,510			11,420	H	I Miking	93	84	40	100	108	425
2019 shoen	soH							v	Plastic / Spring	shoes suppliec	0	9	0	0	0	9
es over ierapy,	eds on	12/31/2019	95	100	09			255	de (pairs)	Plastazote	3	4	0	0	0	7
activiti physiotl	no. of b	1/1/2019	95	100	60			255	Shoes ma	MCR	451	1,257	0	0	0	1,708
supportive Hospitals, I	Project		TTLCP	MTLCP	NTLCP	RTLCP	FTLCP	Total projects	Project		TTLCP	MTLCP *5	NTLCP	RTLCP	FTLCP	Total projects

¹¹ Community HE : in the villages, OPD HE, UHC indoor HE and organisation (microcredit or other groups), informal group HE during field visit, HE with the patient's attendants etc. *2 Village Doctors, Fixed DOT provider and Pharmacy hoders training.

*3 Seminar in Medical college, sadar hospital

⁻⁴ Opinion leader, scout and girls guide, NGO workers, review workshop at Upazilla level and DOT committee meeting. ⁻⁶ MTLCP made shoe for NTLCP, FTLCP and RTLCP.

Annex Table-3

Personnel and infrastructure over 2019 Numbers of personnel, transport, equipment

Product Protection Protectio	Department:	Administra	ative + Hos	oital															
	Project			Personnel				Transport		Operation	X-Ray	Microscopes	Shoe						
HUCP11		Doctors	Paramedical	Administrative	Support/Techn.	Others	Cars	Motorcycles	Bicycles	Theatre (OT)	Units	in use	workshops						
MICP(1(14)(17)(17)(17)(17)(19)(10	тпср	2	20	2	19	0	-	-	2	1 sterile	-	4	-						
NILCP 1 14 15	MTLCP	-	14	m	17	0	-	19	8	1 septic	-	2	۲						
RLG* 0 0 2 12 12 0 1 0 0104 010 01 0 01 0 01 0 01 0 01 0 01 0 0 0 0 0 0 01 0 01 0	NTLCP	-	14	~	15	0	0	2	Q	1 septic	-	4	0						
FLCP022801012131013<	RTLCP	0	0	2	12	0	0	٢	0	not applicabl€	e, no hospital	0	0						
DFC0 3 0 4 7 0 7 0 </td <td>FTLCP</td> <td>0</td> <td>2</td> <td>2</td> <td>8</td> <td>0</td> <td>0</td> <td>12</td> <td>31</td> <td>not applicable</td> <td>e, no hospital</td> <td>2</td> <td>0</td>	FTLCP	0	2	2	8	0	0	12	31	not applicable	e, no hospital	2	0						
Total projects 7 50 17 78 77	DFCO	3	0	4	7	0	2	0	0	not applicable	e, no hospital	0	0						
Interpret state Interpret state <t< td=""><td>Total projects</td><td>7</td><td>50</td><td>17</td><td>78</td><td>0</td><td>4</td><td>35</td><td>57</td><td>e</td><td>ę</td><td>12</td><td>2</td></t<>	Total projects	7	50	17	78	0	4	35	57	e	ę	12	2						
ProjectTransportIntersectionIntersectionIntersectionCombinedIntersectionCombinedIntersection <th <="" colspan="6" th=""><th>Department:</th><th>Field</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th>Department:</th> <th>Field</th> <th></th>						Department:	Field											
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MILP 1 8 42 17 32 0 1 9 34 34 6 NILCP 0 2 19 6 15 0 1 9 34 34 6 NILCP 0 2 19 6 15 0 15 12 12 12 12 10 RILCP 1 8 51 8 31 0 2 11 38 32 32 0 RILCP 1 9 51 10 32 2 11 38 32 32 0 FILCP 1 9 51 10 32 2 2 2 2 3	ТПСР	٢	7	52	0	29	0	1	10	34	34	34	£						
NTLCP 0 2 19 6 15 15 15 15 12<	MTLCP	٢	8	42	17	32	0	1	6	43	34	34	9						
RTLCP 1 8 51 8 31 0 2 11 38 32 32 0 FTLCP 1 9 51 10 32 0 29 38 38 30 DFLCP 0 0 32 0 22 9 29 38 38 0 DFLCP 0 0 0 0 29 29 38 36 0 Total projects 4 139 0 7 42 150	NTLCP	0	2	19	9	15	0	1	ç	12	12	12	0						
FTLCP 1 9 51 10 32 0 2 9 38 38 0 DFC0 0 0 0 0 0 0 0 0 0 0 0 13 13 14 139 0 7 42 150 150 150 150 10	RTLCP	1	8	51	8	31	0	2	11	38	32	32	0						
DFC0 13 14 13 0 7 42 150 150 <th< td=""><td>FTLCP</td><td>L.</td><td>6</td><td>51</td><td>10</td><td>32</td><td>0</td><td>2</td><td>6</td><td>29</td><td>38</td><td>38</td><td>0</td></th<>	FTLCP	L.	6	51	10	32	0	2	6	29	38	38	0						
Total projects 4 34 215 41 139 0 7 42 150 150 11	DFCO	0	0	0	0	0	0	0	0	0	0	0	0						
	Total projects	4	34	215	41	139	0	7	42	156	150	150	11						

ONSOLIDATED REPORT, LEPROSY 2019 Evolution of casefinding and caseload

Annex Table-4

Year	Project	Districts &				NUMBE	RS				RATES		
		population	N	ew case	es	New	Disabled	On treatment	New Lepr. /	Lep. preval. /	Proportion	Prop. new	Prop. new
			PB	MB	Total	children	new cases	at end (Year)	100.0000 pop.	10.000 pop.	MB new Lep.	children L.	disabled L.
2012	TTLCP	TG+JM+SP 7 220 760	41	53	94	7	19	71	1.28	0.10	56%	7%	20%
	MTLCP	/,520,709 MM + KS	34	37	71	2	21	53	0.87	0.07	52%	3%	30%
	miller	8,122,683	51	57	· · ·	-	21	00	0107	0107	0.070	570	5070
	NTLCP	Netrakona	11	12	23	1	3	21	1.02	0.09	52%	4%	13%
	DTLCD	2,255,083	122	112	224	25	24	106	2.20	0.29	490/	110/	150/
	KILCP	6.920.960	122	112	234	23	54	190	5.58	0.28	4870	11%	13%
	FTLCP	FP+GP+MP+RJ+SR	21	44	65	6	9	55	1.00	0.08	68%	9%	14%
		6,495,476											
	TOTAL	31,114,971	229	258	487	41	86	396	1.57	0.13	53%	8%	18%
2013	TTLCP	TG+JM+SP 7 286 180	35	43	78	3	22	78	1.06	0.11	55%	4%	28%
	MTLCP	/,300,109 MM + KS	42	38	80	7	16	60	0.97	0.07	48%	9%	20%
		8,224,766			00	,				0.007		570	
	NTLCP	Netrakona	5	16	21	1	4	18	0.92	0.08	76%	5%	19%
	DTI CD	2,280,834	01	06	197	12	27	170	2.67	0.24	510/	60/	200/
	RILCI	7,000,045	71	50	107	12	51	170	2.07	0.24	5170	070	2070
	FTLCP	FP+GP+MP+RJ+SR	24	25	49	9	4	40	0.75	0.06	51%	18%	8%
		6,534,388											
2014	TOTAL	31,426,222	197	218	415	32	83	366	1.32	0.12	53%	8%	20%
2014	TILCP	7 452 350	29	48	//	- 5	12	66	1.03	0.09	62%	4%	16%
	MTLCP	MM + KS	41	43	84	8	16	62	1.01	0.07	51%	10%	19%
		8,328,458											
	NTLCP	Netrakona 2 200 000	7	11	18	1	4	13	0.78	0.06	61%	6%	22%
	PTLCP	2,306,900 R A + NG + NW	85	72	157	8	24	124	2.22	0.18	46%	5%	15%
	RIDEI	7,080,143	05	12	157	0	27	124	4.44	0.10	1070	570	1370
	FTLCP	FP+GP+MP+RJ+SR	24	24	48	3	4	40	0.73	0.06	50%	6%	8%
		6,573,679											
2016	TOTAL	31,741,530	186	198	384	23	60	305	1.21	0.10	52%	6%	16%
2015	TILCP	7.519.262	30	39	/5	2	10	59	1.00	0.08	52%	3%	13%
	MTLCP	MM + KS	41	38	79	7	9	68	0.94	0.08	48%	9%	11%
		8,433,791											
	NTLCP	Netrakona	3	10	13	1	4	11	0.56	0.05	77%	8%	31%
	RTLCP	2,333,280 RA + NG + NW	76	89	165	4	22	135	2 30	0.19	54%	2%	13%
	RILCI		10	0,	105		Aur Aur	155	2.50	0.17	5170	270	1370
	ETL CD	7,161,268	17	22	40	2	2	27	0.60	0.06	590/	50/	50/
	FILCP	6 613 354	17	25	40	2	2	37	0.00	0.00	3870	370	370
	TOTAL	0,015,554											
		32,060,961	173	199	372	16	47	310	1.16	0.10	53%	4%	13%
2016	TTLCP	TG+JM+SP	16	31	47	1	6	39	0.62	0.05	66%	2%	13%
	MTLCP	/,580,930 MM + KS	3/	30	73	7	14	62	0.85	0.07	53%	1.0%	10%
	MILCI	8,540,798	54	57	15	,	14	02	0.05	0.07	5570	1070	1770
	NTLCP	Netrakona	4	9	13	0	3	9	0.55	0.04	69%	0%	23%
	DTLCD	2,359,995	0.0	64	150	12	10	140	2.00	0.10	4207	01/	120/
	RILCP	KA + NG + NW 7 188 760	86	64	150	13	18	140	2.09	0.19	45%	9%	12%
	FTLCP	FP+GP+MP+RJ+SR	11	10	21	1	4	18	0.32	0.03	48%	5%	19%
		6,653,417											
	TOTAL	32,329,907	151	153	304	22	45	268	0.94	0.08	50%	7%	15%
2017	TTLCP	TG+JM+SP 7.640.200	31	36	67	3	6	51	0.88	0.07	54%	4%	9%
	MTLCP	7,049,200 MM + KS	34	29	63	4	8	51	0.73	0.06	46%	6%	13%
		8,645,801		Ĺ					0.70				
	NTLCP	Netrakona	13	13	26	1	9	25	1.09	0.10	50%	4%	35%
	DTI CD	2,386,663	202	101	303	46	16	220	4.17	0.20	220/	1.50/	50/
	KILCP	7.270.597	202	101	505	40	10	220	4.17	0.50	3376	13%	3%
	FTLCP	FP+GP+MP+RJ+SR	3	13	16		3	8	0.24	0.01	81%	0%	19%
		6,691,233											
2010	TOTAL	32,643,494	283	192	475	54	42	355	1.46	0.11	40%	11%	9%
2018	TILCP	1 G+JM+SP 7 711 085	36	44	80	8	25	65	1.04	0.08	55%	10%	31%
	MTLCP	MM + KS	35	31	66	1	16	57	0.75	0.07	47%	2%	24%
		8,752,099											
	NTLCP	Netrakona	11	22	33	1	16	28	1.37	0.12	67%	3%	48%
	RTLCP	2,413,632 RA + NG + NW	130	84	214	18	40	165	2.91	0.22	30%	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	10%
	in ber	7,353,411	150	07	~17	10	10	105	<i>2.7</i> 1	0.22	5570	070	1270
	FTLCP	FP+GP+MP+RJ+SR	7	9	16	2	9	12	0.24	0.02	56%	13%	56%
	TOT	6,729,346	010	100	402	20	101	207	1.01	0.12	1(2)	76.1	2001
2010	TTLCD	32,960,473	219	190	409	30	106	327	0.57	0.10	46%	160/	26%
2019	TILCP	7 775 296	19	25	44	/	13	40	0.57	0.05	5/%	10%	30%
	MTLCP	MM + KS	30	33	63	3	13	44	0.71	0.05	52%	5%	21%
		8,859,707											
	NTLCP	Netrakona	5	11	16	0	7	10	0.66	0.04	69%	0%	44%
	RTLCP	2,440,906 RA + NG + NW	71	67	138	18	28	92	1.86	0.12	49%	13%	20%
		7,437,214											
	FTLCP	FP+GP+MP+RJ+SR	5	9	14	0	6	10	0.21	0.01	64%	0%	43%
	TOT I	6,767,759	120	145	275	20	(7	107	0.02	0.00	5207	109/	2467
	TOTAL	33,280,882	130	145	275	28	67	196	0.83	0.06	33%	10%	24%

CONSOLIDATED REPORT, LEPROSY 2019 Caseloading and results of treatment, workload

Annex Table-5

Project	District	PB/MB	On treatment	Completed	Under care	MDT Relapse	Outcome of	f treatment
			on 31/12/2019	MDT	During 2019	over 2019	(cohort: P) MB 201	B 2018 & 7 in %)
							Completed	Defaulted
TTLCP	Tangail	PB	2	1	6	0	100%	0%
		MB	8	10	85	0	88%	13%
	Jamalpur	PB	2	6	11	0	100%	0%
		MB	15	19	150	0	88%	4%
	Sherpur	PB	8	14	33	0	100%	0%
	TOTAL	MB	5	11	186	0	83%	1/%
	TOTAL	PB	12	21	50	0	100%	0%
	PROJECT		28	40	421	0	07.70	0%
		TOTAL	40	01	471	0	9370	4 /0
MTLCP	Mymensingh	PB	12	36	46	0	97%	3%
		MB	26	27	244	0	100%	0%
	Kishoreganj	PB	0	5	65	0	100%	0%
		MB	6	7	113	0	100%	0%
	TOTAL	PB	12	41	111	0	97%	3%
	PROJECT	MB	32	34	357	0	100%	0%
		TOTAL	44	/5	468	0	98%	2%
NTLCP	Netrakona	PB	0	8	26	0	100%	0%
		MB	10	25	129	0	100%	0%
		TOTAL	10	33	155	0	100%	0%
DTL OD			1.1	50			000/	4.07
RTLCP	Naogaon	PB MB		53	21		99%	1% 2%
	Nawabgani	PB	7	19	12	0	100%	0%
	1 to the gaing	MB	18	19	65	0	100%	0%
	Rajshahi	PB	4	32	5	0	95%	5%
		MB	24	31	85	0	96%	4%
	TOTAL	PB	22	104	38	0	98%	2%
	PROJECT	MB	70	91	252	0	98%	2%
		TOTAL	92	195	290	0	98%	2%
FTLCP	Faridpur	PB	1	0	2	0	0%	0%
1 I LOI	runupui	MB	3	1	49	0	100%	0%
	Gopalganj	PB	0	1	0	0	0%	0%
		MB	0	1	43	0	100%	0%
	Madaripur	PB	0	0	3	0	100%	0%
		MB	1	2	39	0	100%	0%
	Rajbari	PB MP	0		2	0	0%	0%
	Sariatour	PR	0	3	24	0	100%	0%
	Sarraipur	MB	5	4	54	0	100%	0%
	TOTAL	PB	1	5	14	0	100%	0%
	PROJECT	MB	9	11	209	0	100%	0%
		TOTAL	10	16	223	0	100%	0%
		חח	47	170	000		000/	00/
ALL		PB	47	1/9	239	0	98%	2%
PROJEC	TS	TOTAL	149	380	1607	0	90%	2%
TROJEC	10	TOTAL	190	500	1007	0	51/0	Z /0

Annex Table-6

CONSOLIDATED REPORT, LEPROSY 2019 Evolution of casefinding and caseload

)				NTMB	PDC						DAT	D.C.		
						INUME	EKS						<u>NA1</u>	2		
roject	Districts &	Nev	v cases		New	New	New	New Gr. 2	SSS+ve	UT ,	New per	Preval. per	New	(%) SSS+ve	New	New Gr. 2
	population	PB	MB	Total	child	SLPB	Women	DISAD.	MB	at end	100,000 pop.	10,000 pop.	(%) MB	among MB	(%) Child.	(%) Disab.
	Tangail 3.897.148	2	∞	10	0		7	2	4	10	0.3	0.0	80.0	50.0	0.0	20.0
đ	Jamalpur 2 457 049	2	12	14	0		5	1	7	17	0.6	0.1	85.7	58.3	0.0	7.1
5	Sherpur 1,426,099	15	5	20	7		~	2	1	13	1.4	0.1	25.0	20.0	35.0	10.0
	Total project 7.775.296	19	25	44	7	0	20	5	12	40	0.6	0.1	56.8	48.0	15.9	11.4
	Mymensingh 5.667.678	28	27	55	2		28	7	~	38	1.0	0.1	49.1	29.6	3.6	12.7
LCP	Kishoregonj 3,192,029	7	9	~	-		1	2	3	9	0.3	0.0	75.0	50.0	12.5	25.0
	Total project 8,859,707	30	33	63	3	0	29	6	11	44	0.7	0.0	52.4	33.3	4.8	14.3
CP	Netrakona 2,440,906	5	11	16	0		4	9	9	10	0.7	0.0	68.8	54.5	0.0	37.5
	Naogaon	31	28	59	9		32	7	4	39	2.1	0.1	47.5	14.3	10.2	11.9
ŧ	2,778,693 Nawabganj	18	18	36	4		12	4	9	25	1.9	0.1	50.0	33.3	11.1	11.1
<u></u>	1,847,041 Rajshahi	22	21	43	~		16	7	9	28	1.5	0.1	48.8	28.6	18.6	16.3
	2,811,480	Ē	5	130	10	•	07	10	14	5	4	A.1	101	0.6	12.0	12.0
	Total project 7,437,214	17	67	138	18	•	60	18	16	92	1.9	0.1	48.0	23.9	13.0	13.0
	Faridpur 2.039.422	1	3	4	0		0	ŝ	3	4	0.2	0.0	0.0	0.0	0.0	0.0
	Gopalgonj 1 197 476	0	0	0	0		0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0
e	Madaripur 188 751	0			0		0	0	0	1	0.1	0.0	100.0	0.0	0.0	0.0
5	Rajbari 1.122.337	0	0	0	0		0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0
	Sariatpur 1,224,823	4	ŝ	6	0		4	0	0	5	0.7	0.0	55.6	0.0	0.0	0.0
	Total project	5	6	14	0	0	4	3	3	10	0.2	0.0	64.3	33.3	0.0	21.4
	6,767,759															
	Total population	130	145	275	28	0	117	41	48	196	0.8	0.1	52.7	33.1	10.2	14.9
ect	33,280,882															

Year	Project	Districts & population	All TB patients	PBC	No smear done PTB	PCD & EP	Proportion PBC / total
2012	TTLCP	TG + JM + DEPZ	6,207	4,079	0	2,128	669
	MTLCP	6,004,017 MM + KS	7,025	4,450	0	2,575	63
	NTLCP	5,891,337 Netrakona	2,642	1,607	0	1,035	6
	RTLCP	2,255,083 (RA) + NG + NW	4,245	2,499	0	1,746	5
	FTLCP	6,655,569	4.613	2 749	0	1 864	6
	TOTAL	6,495,476	1,015	15,204		1,001	
2013	TTLCP	27,301,482 TG + JM + DEPZ	5,898	3,718	0	2,180	6
	MTLCP	6,060,941 MM + KS	6,905	4,187	0	2,718	6
	NTLCP	5,963,971	2 673	1.638	0	1.035	6
	NTECT	2,280,834	2,075	1,050	0	1,055	0
	RILCP	RA + NG + NW 6,751,823	4,521	2,458	0	2,063	5
	FTLCP	FP+GP+MP+RJ+SR 6,534,388	4,577	2,428	0	2,149	5
014	TOTAL	27,591,957	24,574	14,429	0	10,145	5
014	TILCP	6,118,537	6,050	5,700	0	2,330	0
	MTLCP	MM + KS 6,037,824	6,995	4,044	0	2,951	5
	NTLCP	Netrakona 2,306,900	2,765	1,587	0	1,178	5
	RTLCP	RA + NG + NW 6 801 420	4,488	2,530	0	1,958	5
	FTLCP	FP+GP+MP+RJ+SR	4,202	2,143	0	2,059	5
	TOTAL	27,838,370	24,480	14,004	0	10,476	5
015	TTLCP	TG + JM + DEPZ 6 176 815	6,044	3,501	0	2,543	5
	MTLCP	MM + KS	7,098	3,898	0	3,200	5
	NTLCP	Netrakona 6,112,926	2,734	1,540	0	1,194	5
	RTLCP	2,333,286 RA + NG + NW	4,658	2,358	0	2,300	5
	FTLCP	6,875,746	4 204	2.045	0	2 159	4
	TIECI	6,613,354	4,204	2,045	•	2,137	
2016	TOTAL	28,112,127 TG+JM+DEPZ	24,738 5,766	3,353	0	2,413	5
	MTLCP	6,235,784	7.451	4.243	0	3.208	5
	NTLCD	6,189,302	2 595	1.560	0	1.016	-
	NTECT	2,359,995	2,585	1,509	0	1,010	
	RTLCP	RA + NG + NW 6,896,330	4,393	2,292	0	2,101	5
	FTLCP	FP+GP+MP+RJ+SR 6,653,417	4,105	2,056	0	2,049	5
2017	TOTAL	28,334,828	24,300	13,513	0	10,787	5
2017	TILCP	6,239,782	5,906	5,591	0	2,315	5
	MTLCP	MM + KS 6,254,078	7,905	4,403	0	3,502	5
	NTLCP	Netrakona 2,386,663	2,724	1,716	0	1,008	6
	RTLCP	RA + NG + NW 6 781 245	4,812	2,498	0	2,314	5
	FTLCP	FP+GP+MP+RJ+SR	4,286	2,096	0	2,190	4
	TOTAL	28,353,001	25,633	14,104	0	11,529	5
2018	TTLCP	TG+JM+DEPZ 6 274 251	6,531	3,114	0	3,417	4
	MTLCP	MM + KS	7,974	4,073	0	3,901	5
	NTLCP	6,339,761 Netrakona	3,094	1,589	0	1,505	5
	RTLCP	2,413,632 RA + NG + NW	5.302	2,463	0	2.839	4
	FTLCP	7,048,822	4 774	2.012	0	2 762	
	moment	6,729,346	4,774	2,012	0	2,702	4
2019	TOTAL	28,905,812 TG+JM+DEPZ	27,675	13,251 3,353	0	14,424 3,868	4
	MTLCP	6,429,197 MM + KS	8 361	4 115	0	4 246	
	NTLOD	6,416,364	0,501	1 474	0	1,240	4
	NILCP	2,440,906	3,308	1,474	0	1,834	4
	RTLCP	RA + NG + NW 7,126,431	6,060	2,756	0	3,304	4
	FTLCP	FP+GP+MP+RJ+SR 6.767.759	5,485	2,022	0	3,463	3
	TOTAL	29,180,657	30,435	13,720	0	16,715	4

tition Notification 0,00 rate/100,00 new 0 pop. all forms of TB		70	84	58	83	115	81	74	69	93	89	85	116	198	103	112	136	119	141	130	101
Notifica rate/10 0 pop. I PBC		23	31	21	28	36	27	35	17	42	31	36	47	66	50	48	56	23	92	26	
% of new PBC patients		33%	37%	36%	33%	31%	34%	47%	25%	45%	35%	42%	40%	34%	48%	43%	41%	45%	46%	45%	7067
Total registration		1422	1003	654	992	1414	5485	1707	132	2586	1635	0909	4530	158	2533	7221	3308	3845	4516	8,361	30.435
PCD & EP New		43	36	42	37	37	195	36	٢	57	40	134	191	8	96	295	245	204	190	394	1 263
Extra- pulmonary (EP) New		449	252	196	271	301	1469	607	85	650	531	1873	978	17	596	1651	620	950	1064	2,014	7 6.77
Pulmonary Clinically Diagnosed (PCD)		415	308	156	318	602	6621	216	9	629	436	1297	1404	19	499	1922	696	820	1018	1,838	7 0.7E
(PBC)	Other	8	5	4	5	7	29	1	2	2	0	5	20	0	31	51	10	37	21	58	162
Confirmed	RALTFU	2	0	٢	~	٢	5	0	0	3	0	3	2	0	6	11	٢	٢	7	8	30
iologically FB Patients	Failures	9	4	٢	4	2	17	6	2	20	2	38	22	٢	24	47	20	25	24	49	4 7 4
nary Bacter	Relapses	34	28	16	28	20	126	38	3	57	44	142	82	0	60	142	86	91	116	207	702
Pulmo	New cases	465	370	238	328	444	1845	800	33	1158	577	2568	1831	53	1218	3102	1357	1717	2076	3,793	10 66F
Population covered		2,039,422	1,192,426	1,122,337	1,188,751	1,224,823	6,767,759	2,309,818	190,880	2,778,693	1,847,041	7,126,432	3,897,148	80,000	2,452,049	6,429,197	2,440,906	3,224,334	3,192,029	6,416,363	JO 180 667
District		Faridpur	Gopalganj	Rajbari	Madaripur	Shariatpur	FTLCP	Rajshahi	RMCH	Naogaon	Nawabganj	RTLCP	Tangail	DEPZ	Jamalpur	TTLCP	NTLCP	Mymensingh	Kishoreganj	MTLCP	DF Pandadash

			,	Treatmen	t outcome	es (%)		
Districts	Registered	Cured + Completed	Died	Failed	Lost to follow up	Transferred out / Not. Evaluated	Not evaluated	Treatment success (%)
NETRAKONA	1436	94%	4%	2%	1%	0%	0%	94%
TANGAIL	1654	93%	4%	1%	2%	0%	0%	93%
DEPZ	42	100%	0%	0%	0%	0%	0%	100%
JAMALPUR	1155	89%	4%	2%	4%	1%	0%	89%
MYMENSINGH	1655	92%	4%	2%	1%	2%	0%	92%
KISHOREGANJ	2102	94%	3%	1%	1%	1%	0%	94%
NAOGAON	1132	92%	5%	2%	1%	0%	0%	92%
NAWABGANJ	522	95%	4%	1%	0%	0%	0%	95%
RAJSHAHI	634	89%	5%	3%	2%	1%	0%	89%
FARIDPUR	446	93%	6%	1%	0%	0%	0%	93%
GOPALGANJ	323	95%	3%	1%	1%	0%	0%	95%
MADARIPUR	362	93%	5%	1%	1%	0%	0%	93%
RAJBARI	244	93%	6%	1%	0%	0%	0%	93%
SARIATPUR	441	96%	3%	1%	0%	0%	0%	96%
TOTAL DF	12148	92.8%	4.0%	1.4%	1.3%	0.5%	0.1%	92.8%

Treatment outcomes for nre-treatment smear positive cases, 2018 cohort Annex Table -10

				Treatme	nt outcome	s (%)		
Districts	Registered	Cured	Died	Failed	Lost to follow up	Transferred	Not evaluated	Treatment success (%)
NETRAKONA	153	93%	3%	0%	3%	0%	0%	93%
TANGAIL	147	86%	7%	1%	4%	0%	2%	86%
DEPZ	6	100%	0%	0%	0%	0%	0%	100%
JAMALPUR	110	85%	7%	2%	4%	1%	1%	85%
MYMENSINGH	158	81%	4%	6%	6%	1%	3%	81%
KISHOREGANJ	158	84%	8%	2%	3%	1%	2%	84%
NAOGAON	73	82%	10%	4%	4%	0%	0%	82%
NAWABGANJ	56	93%	2%	0%	5%	0%	0%	93%
RAJSHAHI	45	73%	4%	7%	16%	0%	0%	73%
FARIDPUR	56	89%	9%	0%	2%	0%	0%	89%
GOPALGANJ	35	94%	0%	3%	3%	0%	0%	94%
MADARIPUR	35	83%	9%	0%	9%	0%	0%	83%
RAJBARI	32	94%	6%	0%	0%	0%	0%	94%
SARIATPUR	38	89%	8%	0%	3%	0%	0%	89%
TOTAL DF	1102	86.4%	5.8%	2.0%	4.4%	0.4%	1.0%	86.4%

Summary resutts of External Quality Assurance by project 2019

Annex Table 11

		Routine srr	iears examir	ned (nos.)	Smears rec	checked by E	QA (nos.)			EQA rechecki	ing results		
PROJECTS	Nr. Of Microscopy centres	Total	% positive	% scanty	Pos.	Scanty	Neg.	Nr. HFP slides	Nr. HFN slides	Nr. Of centres with at least 1 HFP	Nr. Of centres with at least 1 HFN	HFP%	%N3H
FTLCP	38	181,296	1.4%	0.6%	125	43	2036	4	9	4	9	2.38%	0.29%
MTLCP	35	224,166	2.9%	1.0%	164	55	1875	2	5	2	4	0.91%	0.27%
NTLCP	12	86,521	2.5%	0.9%	81	25	605	2	0	2	0	1.89%	%00.0
RTLCP	32	156,889	1.8%	1.0%	151	48	1719	~	2	-	2	0.50%	0.12%
TTLCP	35	190,632	2.4%	1.1%	61	37	1999	4	2	4	2	4.08%	0.10%
DF Total	152	839,504	2.20%	0:90%	582	208	8234	13	15	13	14	2.23%	0.18%

Annex Table 12

0.18%

QUALITY CONTROL OF SKINSMEARS: 2019 DAMIEN FOUNDATION BANGLADESH

	Total s	smears check	ked in							Proportio	ins registe	red	
Project	S			Kates of	raise result	ω Ι.		·	ı	results			Neg (among al
	Pos.		Neg.	False	positives	False	negatives	Quanti	ification	Amo	ing all posit	ives	smears)
	+1	+2 to +6		+	+2 to +6	+	+2 to +6	1 log	>1 log	+1/+2	+3/+4	+5/+6	
FTLCP	4	ω	28	%0	%0	%0	%0	17%	17%	40%	44%	16%	%62
MTLCP	2	თ	52	100%	%0	%0	%0	27%	%0	29%	33%	38%	89%
NTLCP	-	10	15	%0	%0	%0	%0	9%	%0	52%	19%	29%	73%
RTLCP	-	9	80	%0	%0	3%	1%	43%	14%	28%	30%	42%	89%
TTLCP	1	16	11	0%	%0	%0	%0	18%	24%	39%	55%	6%	62%
DF BD	6	49	186	22%	%0	1%	1%	21%	12%	34%	36%	29%	85%

Pictures of few activities

Meeting with Community Leaders

Orientation of cured TB patients

Australian Medical team visit at Mymensingh

Health Education before contact survey for leprosy

Netrakona hospital visit from DF Coordinating office (DFCO), Dhaka

Rally on World Leprosy Day at Dhamoirhat Upazila

NTP visit at DF Mymensingh Hospital

DF Jalchatra Hospita

DF Mymensingh Hospital

DF Netrakona Hospital

ANNUAL REPORT 2019

Bangladesh

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