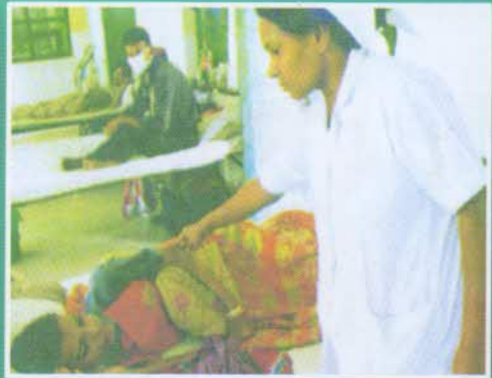
GUIDELINES ON PUBLIC-PRIVATE MIX FOR TUBERUCLOSIS CONTROL

Second Edition
2017



National Tuberculosis Control Programme
Mycobacterial Disease Control
Directorate General of Health Services
Ministry of Health and Family Welfare
Dhaka, Bangladesh

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PREFACE

TB services are integrated under the new Health, Population and Nutrition Sector Development Programme (HPNSDP), implemented through the primary health care services of the country. Bangladesh is an outstanding example of implementing TB control in partnership with NGOs.

While Bangladesh has made substantial progress in DOTS, collaboration between National TB Control Programme (NTP) and NGOs is considered a very significant example for large scale public-private mix (PPM) DOTS. However, a large portion of the private providers still not are engaged in TB control which is a challenge of the programme for appropriate TB management and rational use of anti TB drugs.

The revision of this guideline is a timely step taken by the NTP to address the PPM activities for sustaining success in TB control.

This guideline will provide information to health care professionals at different level of health care system and be used as reference guidelines for the health workers to strengthen public-private mix TB control efforts in Bangladesh.

I recommend this guideline for intensive use in implementation of PPM DOTS for TB care services and wish every success.

Md. Serajul Huq Khan
Secretary
Health Services Division
Ministry of Health and Family Welfare
Bangladesh Secretariat, Dhaka

MESSAGE

Bangladesh manages TB control through effective partnership achieving remarkable success in terms of case notification and treatment success. However, tuberculosis still remains as a major public health problem in Bangladesh. The most cost effective public health measure for control of tuberculosis is early case notification, and management of TB cases.

Public-private mix (PPM) TB control represents a strategic approach to engage the private sectors at all level in DOTS implementation. Further, appropriate care seeking from the private providers may accelerate TB case findings and reduce the morbidity and mortality due to TB infection.

The PPM implementation will also enhance access the TB care services among the poor and marginalized people of the country. I sincerely thank and appreciate the initiative of revising this guideline and believe that the National TB Control Programme (NTP) will be benefitted by using this revised guideline for implementing PPM approach in country's TB control programme.

I would also like to express my sincere thanks to all who were involved in providing technical support to develop this guideline.

Professor Dr. Abul Kalam Azad
Director-General
Directorate General of Health Services
Ministry of Health & Family Welfare

MESSAGE

Bangladesh is among the 22 high TB burden countries identified by WHO and the Stop TB Partnership. WHO has also ranked Bangladesh among the 27 countries globally considered "high MDR-TB burden."

The gaps in TB case detection exist despite the significant TB service expansion achieved by the Bangladesh government. Over the last 15 years, TB case detection has steadily increased and the treatment success rate is around 94 percent. This success is attributed to the extended partnerships between NTP and its implementing partners.

Despite the progress made so far, a number of challenges have been identified in the implementation of public-private mix (PPM) activities. Many providers are not formally or regularly engaged. Standardized formats for referral of presumptive cases are not in use and there are no feedback systems to inform providers of the status of the referral. In this context, successful implementation and expansion of PPM is the most appropriate option.

The second edition of PPM guidelines outlines NTP's priorities for expanding TB case notification and management through health care professionals in multiple sectors. The revision has been made in line with the WHO guidance on Public-Private Mix approaches and to adopt the Global END TB Strategy. The guidelines will be used by the health professionals to promote PPM activities in TB control.

I express my sincere thanks to the working team of NTP including technical partners and stakeholders who contributed much for developing these guidelines.

Dr. Md. Ehteshamul Huq Choudhury
Additional Director General (Admin)
and Line Director TBL & NASP,
National Tuberculosis Control Programme
DGHS, Mohakhali, Dhaka

ACKNOWLEDGEMENT

The Guidelines on Public-Private Mix for Tuberculosis control was developed by the National TB Control Programme (NTP) and its implementing partners in tuberculosis control in Bangladesh. To adopt the Global END TB strategy, NTP felt the need of revising the existing guidelines. The revision has been made in line with the WHO guidance on Public-Private Mix approaches for TB control. I am pleased to say that with the valuable contributions from all stakeholders NTP has been able to update the guidelines.

On behalf of NTP Bangladesh, I would like to express my gratitude to the working group consisting of experts from NTP, external technical consultant, WHO, professional associations and the partners for their valuable input to revise and update the guidelines.

I hope the guidelines will be very much helpful for engaging all health professionals in TB control.

NTP sincerely acknowledges the guidance and support from the Honourable Minister, MOHFW, the Secretary, MOHFW and Director General, DGHS in implementing the Tuberculosis control programme.

I also thankfully acknowledge the support from our technical and development partners e.g. WHO, USAID, GFATM for enhancing the TB control efforts in Bangladesh.

Dr. Rouseli Huq
Director MBDC & Programme Manager-TB
National Tuberculosis Control Programme
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WAY FORWARD

The World Health Assembly has adopted the END TB Strategy in May 2014 with targets linked to the newly adopted Sustainable Development Goals (SDGs) . From 2016, the goals have shifted from MDGs to SDGs to end the global TB epidemic by implementing the End TB Strategy.

PPM represents a comprehensive approach to engage the private sectors and all health professionals in TB control programme. According to the pillars and components 2 of the WHO's new End TB Strategy, it has been emphasized on strengthening the public and private engagement to prevent and end TB. Therefore, it is important to establish a good linkage between NTP and NGOs for expanding PPM-DOTS. Bangladesh has very good public-NGO collaboration in TB control programme. For successful implementation of PPM TB control in country, the private sectors and the public-private health care service providers have a major role for case notification and management of TB cases.

WHO has been working with the National Tuberculosis Control Programme (NTP) and other partners to design key interventions linked in delivering TB care services. On these new initiatives, WHO emphasizes on quality service delivery that ensures all diagnosed cases are placed timely on treatment.

NTP has recently developed the National Strategic Plan for Public-Private Mix for 2016-2020. WHO supports NTP to develop strategy in TB care services through existing Public-Private Mix (PPM) model and also supporting to scale up the PPM DOTS in health institutions.

I am hopeful that this Guideline will strengthen the capacity of the NTP for implementation of PPM DOTS in the country.

Dr N. Paranietharan
WHO Representative to Bangladesh

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1. INTRODUCTION

The National TB Control Programme of Bangladesh works in close collaboration with the national partners and technical partners; WHO, USAID in implementing Tuberculosis control activities. The Government's efforts, ably supported by diverse partners have led to substantial progress in TB control within the country. The revised national guidelines on public-private mix for tuberculosis control are designed to further strengthen TB control efforts in Bangladesh.

The second edition guidelines are based on the Guidelines on Public-Private Mix for Tuberculosis Control (1st edition, 2006). A consultation was conducted with the NTP and various National and Technical partners, including NGOs, professional associations while developing the second edition. The revisions are in line with the WHO guidance on public-private mix for TB control, and policies such as the International Standards of Tuberculosis Care and the WHO END TB strategy. The second edition guidelines contain the general guidance for PPM relating to tuberculosis control and are intended to be a reference to guide health workers to promote TB public-private mix activities in Bangladesh.

The final guidelines are a result of the various deliberations with NTP and partners working for TB control in Bangladesh. This guideline should be updated periodically and the National TB Programme Manager is responsible for the review process and modifications over time, to reflect global and national new evidence and best practices in PPM.

May 2017

2. BACKGROUND

Bangladesh is a lower middle income country with an estimated population of 161 million. Tuberculosis remains a public health problem in the country with annual incidence estimates for TB (all forms) at 225 per 100,000 and mortality due to TB (excluding HIV) at 45 per 100,000 (source: Global TB Report 2016/WHO).

Estimates of TB burden 2015	Number (thousands)	Rate (per 100 000 Popln)
Mortality (excludes HIV+TB)	73 (43-110)	45 (27-68)
Morality (HIV+TB only)	0.23(0.19-0.29)	0.14 (0.12-0.18)
Incidence (includes HIV+TB)	362 (234-517)	225 (146-321)
Incidence (HIV+TB only)	0.63(0.39-0.94)	0.39 (0.24-0.59)
Incidence (MDR/RR-TB)	9.7(5.4-14)	6(3.4-8.7)
Case detection all forms (%)	57(40-88)	

Bangladesh National TB programme introduced the DOTS strategy in 1993, and working in close collaboration with non-governmental partners expanded DOTS progressively across the country. Since 2003, NTP continues to implement TB activities under the Directorate of Mycobacterial Disease Control (MBDC), which functions under the Directorate General of Health Services of the Ministry of Health and Family Welfare. In 2011, the MOHFW revised its strategic approach as Health Population and Nutrition Sector Development programme (HPNDSP) prioritising TB control under communicable diseases.

While TB services offered by NTP and NGOs have resulted in improved TB care, the case detection rates for new and relapse cases has witnessed only a marginal increase from 38% in 2005, 45% in 2010 to 57% in 2015. In absolute numbers, the TB case notified has increased from 85,410 in 2004 to 209,438 in 2015.The case notification rates for bacteriologically confirmed cases has remained static during the last 10 years (73/100000 in 2006 and 71/100000 in 2015), but steady gains were observed in all forms with CNR moving upwards from 103/100000 in 2006 to 130/100000 in 2015. Improved case finding has been attributed to the consolidation of DOTS programme, and enhanced partnership between NTP and NGOs. The treatment success rates have been consistently favourable at >90% over the years.

National strategy for TB control

NTP has started implementation of National TB Strategic Plan (2015-2020) in alignment with WHO END TB strategy for TB prevention, care and control. Achieving the set NSP targets during 2015-2020 for increased case finding and sustaining treatment success gains requires concerted efforts from both public and private sector partners. NTP continues to provide strategic leadership for successful partnership and collaboration of both private as well as other public health care providers.

The overarching goal for the NTP is to reduce the TB all forms prevalence by at least 10% by 2020, and 5% annually after 2020. Prevalence survey has been conducted and analysis and final results will be made available by 2017, with a repeat prevalence survey planned for 2020

to determine changes in prevalence by the end of NSP implementation period. The objectives for TB control in Bangladesh are in alignment with END TB strategy's 3 pillars: promote integrated patient centred care and prevention, bold policies and supportive systems, and intensifying research and innovation. The TB NSP framework objectives for 2015-2020 are structured according to the WHO Global END TB strategy as highlighted in the Table 1.

The strategy will focus on the provision of regular training and periodic follow-up sessions for private providers from both the formal and informal sectors, with the aim of achieving a substantial increase in the total programmatic coverage. In addition, it will increase the knowledge base on PPM: Identify areas with diagnostic delays via mini-surveys of treatment-seeking pathways and delays, and analyses of the percentage of 3+ smears in each district; Use surveys to identify areas (e.g., urban vs rural) with higher TB private sector drug sales; use the findings to guide PPM approaches in these areas. Regular PPM Working Group meetings will be ensured.

Table 1: NATIONAL STRATEGIC PLAN FRAMEWORK
PILLARS TO 2035 MILESTONES
1 INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION
2 BOLD POLICIES AND SUPPORTIVE SYSTEMS FOR UNIVERSAL ACCESS
3 INTENSIFIED RESEARCH AND INNOVATION
PILLAR 1: INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION
Objective 1 Increase annual case detection of all forms of TB to 230,000 by 2020 (from baseline of 190,000 in 2013)
Objective 2 Maintain a treatment success rate of at least 90% in all forms of detected non-MDR TB cases and ensure quality-controlled treatment services at all implementation sites
PILLAR 2: BOLD POLICIES AND SUPPORTIVE SYSTEMS FOR UNIVERSAL ACCESS
Objective 3 Ensure universal access to DST by 2020; treat 100% of detected MDR-TB cases and achieve a treatment success rate of at least 75% in detected MDR-TB cases
Objective 4 Ensure that at least 90% of required staff positions identified in a revised national human resource development plan are filled, and 100% of all filled positions are trained, by 2020
Objective 5 Ensure that 100% of TB service facilities receive regular supervision and monitoring, and produce timely and accurate reports, by 2016
Objective 6 Ensure the long-term availability of 100% of required funding for activities at all program levels through effective planning and partner coordination; increase GOB contribution to 20% of total TB budget by 2020
PILLAR 3- INTENSIFIED RESEARCH AND INNOVATION
Objective 7 Ensure adequate support for operational research to foster innovation

Purpose of PPM implementation: The objectives of public-private partnership for TB are to achieve set targets for case detection and sustain treatment outcomes during NSP 2016-2020 in line with the END TB strategy. PPM implementation will also aim to enhance access among poor to TB services, and strengthen country's response to reduce the catastrophic costs and overall financial burden on TB patients.

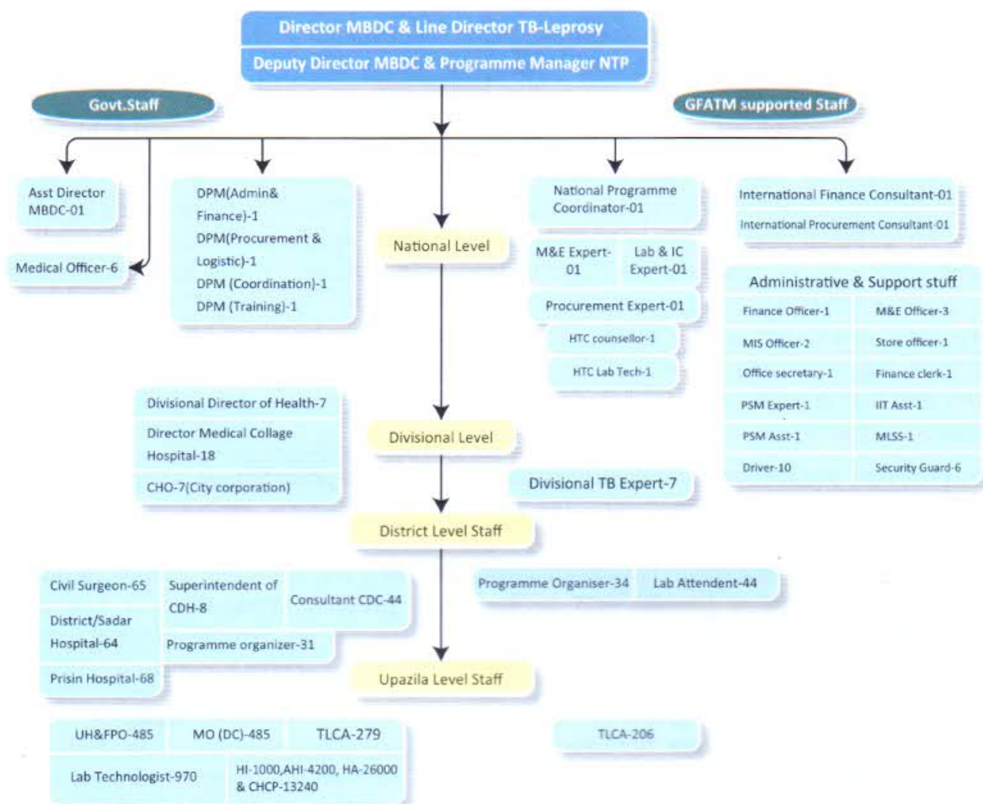
Structure of National TB control programme

The National TB Programme is part of the Mycobacterial Disease Control Unit within the Ministry of Health and Family Welfare (Fig 1). The Programme is managed by a National TB Programme Manager who oversees the work of tuberculosis control programme in the country.

The MBDC directorate consists of two wings: NTP and the National Leprosy Elimination

Programme. The posts of Director, two Deputy Directors, two Assistant Directors and one Medical Officer (Epidemiology) are permanent while all other positions are functional. The Director MBDC is also Line Director (TB-Leprosy), the latter project function is linked to HPNSDP and non-permanent. The NTP is headed by one of the two deputy directors who functions as the NTP Manager, who reports directly to the Line Director (TB/Leprosy). The Director MBDC reports to the Director-General of Health Services. NTP coordinates all activities through the Directorate General of Health Services with the Ministry of Health and Family Welfare. The NTP programme management network is illustrated in figure 1 below.

Figure 1: NTP Programme Management Network



At central level, the NTP is responsible for policy, planning, management, training, supply, supervision and monitoring and implementation of TB services. At the sub-national level, NTP is integrated into the general health services, under the Director (Health), the Civil Surgeon and the Upazilla Health and Family Planning Officer (UH&FPO) responsible at divisional, district and Upazilla level, respectively. Their responsibilities include coordination and supervision of the NTP services. Specifically for PPM, NTP has a focal point at central unit for coordinating PPM implementation.

Public private mix for TB control

Public-private mix represents a comprehensive approach to engage the private sector and all relevant health care providers in DOTS implementation. PPM encompasses diverse strategies such as public-private (NTP and the private sector), public-public (NTP and other public sector

care providers) and private-private (NGO or a private hospital and private providers) collaboration for delivery of TB care to control TB.

Engaging public and private care providers is a key component under the END TB strategy pillar 2: bold policies and supporting systems. Meeting set targets under END TB strategy will require eliciting full benefits of health and development policies and systems through engaging a wider set of collaborators across government, communities and private sector.

In the context of Bangladesh, NGOs' have been at the forefront in providing TB services across the country. Collaboration between NTP and NGOs at the national level is often considered a very good example for large scale PPM DOTS, where NTP has the leadership and ownership, while NGOs are involved in advancing TB programme implementation. The memorandum of understanding to engage BRAC, Damien Foundation and other NGOs was signed in 1994 to implement DOTS in rural areas, and in 2001 for implementing DOTS in urban areas. The Global Fund investment has further augmented the collaboration through new partnerships with other NGOs.

The country has a significant private health sector both in the rural and in the urban areas. There are a large number of private providers, and attending them can be rapid and cheap, at least for an initial visit. Therefore it is not surprising that people with signs and symptoms compatible with TB generally turn first to the private sector. Of the 62% of persistent coughers in Dhaka who sought any care, only 16% went directly to a DOTS facility, whereas 84% went first to the private sector[1]. Evidence from Bangladesh indicate that total delay (patient, diagnostic and treatment) was significant, with delay among women higher than men, and that engaging private sector may accelerate case finding and minimise diagnostic delay among patients[2].

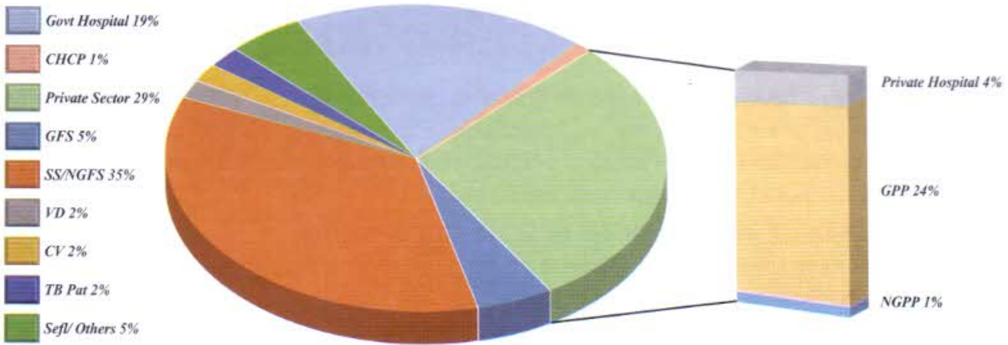
The providers include formal and informal individual private practitioners, as well as private and voluntary institutional providers. The NTP and partners have implemented small and large scale PPM initiatives demonstrating significant results over the last 10 years. The objective of the PPM initiatives have been to promote early and quality assured diagnosis and provide prompt patient friendly DOT to diagnosed patients. While the NTP has made concerted efforts to engage the private providers during the last decade, a formal national situational assessment as part of public-private mix implementation has not been conducted in the country.

Engaging informal healthcare providers (IHCP) such as village doctors, drug sellers and pharmacy staff and graduate private practitioners have been documented. Graduate-PPs, IHCP/NGPPs and private hospitals contributed towards 29% of all TB cases notified during 2015 (Fig 2). In 2015, PPM contributed roughly 50%of all cases detected, of which 29%were from the private sector, 2% from the informal sector, and 19% from government hospitals.

[1] *S Hossain et al, Adults with chronic cough in urban Bangladesh: health care utilisation and management of cases by private practitioners; 2010, World Health & Population; Vol 12 No 1, 2010*

[2] *F Karim et al, Gender differences in delays in diagnosis and treatment of tuberculosis, 2007, Health Policy and Planning: 22:329-334*

Figure 2: TB cases (all forms) notified, 2015



However, it is perceived that a large number of private providers may still not be engaged in TB control. Exclusion of a large proportion of care providers out of an organised response to tuberculosis control may be contributing to the sub-optimal case detection rates in the country. Furthermore, inappropriate tuberculosis management and irrational use of anti-TB medications accentuate both the development and spread of drug-resistant tuberculosis. Core PPM related activities proposed for implementation during 2016-2020 in order to support improved TB care are as follows:

1. Implement practical approach to lung health
2. Organise regular PPM working group meetings
3. Organise regular training sessions for private providers from both the formal and informal sectors in all districts
4. Print and distribute PPM manual including models of care for various settings
5. Promote the adoption of the International Standards of TB care (ISTC) by all PPs
6. Regularly map PPM coverage through determination of number of all private providers and number of providers engaged in PPM activities in all areas
7. Operationalise the Gazette on mandatory TB notification including developing standardised recording and reporting material for PPs and training PPs in using the revised recording and reporting material.

3. PUBLIC PRIVATE MIX IMPLEMENTATION MODELS

NTP and partners have implemented diverse and contextually relevant engagement PPM strategies during the last decade, that include e.g., hospital service delivery model, engagement of graduate private medical practitioners, informal healthcare providers model, social enterprise model, factory workers model etc.

3.1 Hospital service delivery model or DOTS corner model

The engagement strategy with the hospital model is focused on engaging medical institutions and colleges in implementing DOTS. There are over 100 Medical College & Hospitals (Public and Private) in Bangladesh. It is widely accepted that medical institutions and colleges with its professional expertise *are capable of diagnosing* and treating all forms of TB. These centres act as popular entry points for all groups of people from different parts of the country as these are the tertiary care hospitals.

The focus of the model is to establish DOTS corner at medical institutions and engage professionals serving in medical institutes to ensure DOTS services.

From the DOTS corner, TB presumptive cases reported at hospitals (in-door and out-door) are sent to the laboratory for sputum examination. Smear negative and other extra pulmonary presumptive are also examined in different departments of the hospital with necessary investigation procedures. All diagnosed TB cases from different departments are referred to the DOTS corner of the hospital to ensure daily anti-TB drugs for patients who reside close to the hospital, and to ensure referral to peripheral DOTS centres close to the patient's residence for treatment. Adequate counselling to the patient is provided during referral to report at the DOTS centre in time.

BRAC supports 48 hospitals and DF supports five medical college hospitals for DOTS services along with NTP. In 2015, 16,000 TB cases were identified in these facilities. It is expected that expansion of 'DOTS corner model' across the remaining Medical Colleges & Hospitals will contribute to the national case notification especially smear negative, extra pulmonary and childhood TB cases. *The strategic objective for the Hospital model is to increase involvement of qualified health care providers in TB notification and control, by expanding engagement of public and private medical college hospitals from 53 to 80 by 2020.*

3.2 Engagement of graduate private medical practitioners

The engagement of graduate medical practitioners outside of medical college hospitals has been focused mainly in the cities and the exact scope of engagement has not been well documented in all interventions.

The individual private provider engagement intervention has been implemented largely by NGOs as sub-recipients to BRAC, a Global Fund principal recipient, and through NGOs with other implementing partners, such as the USAID-funded Challenge TB project. This approach includes motivating private graduate medical practitioners operating in small clinics and hospitals in the community to link to NTP and affiliated NGOs. Motivation is typically done through networking meetings that provide information and education on NTP, presumptive TB identification, NTP diagnostic centre location and referral procedures. Practitioners are encouraged to refer patients with presumptive TB symptoms to an NTP DOTS facility for

diagnosis and treatment. The providers engaged through this approach are not well-documented, making it difficult to assess the effectiveness, both in terms of cost and output, of the model.

NTP has also worked with medical associations to disseminate information about TB. Few medical associations in Bangladesh, are also engaged in mobilizing private general medical practitiones to adhere to NTP and ISTC standards of care, referring and linking to NTP treatment centres, and conformingto regulations on mandatory case notification. Expanding and strengthening the engagement of more medical associations will provide opportunities for increasing information dissemination and continuing medical education for private graduate medical practitioners through association platforms. NTP can increase and formalize relationships with medical associations and societies by defining clear activities, objectives and working agreements and documenting these through Memoranda of Understanding (MoUs).

3.3 Informal healthcare providers' model

Informal providers refer to village doctors (VDs), drug sellers, pharmacy staff and owners and blue star service providers. These providers typically have informal training, collect their payment directly from patients or clients rather than institutions, and are not registered or regulated. The informal healthcare providers' model implemented by engaging the VDs, has become successful in rural settings. They are the first level of contact for the community due to easy accessibility and low cost. The engagement of informal providers started in 1998 with the goal to engage semi-qualified providers at the community level in TB control activities.

The main objectives in engaging informal providers are:

- To identify TB presumptive cases and refer them for diagnosis at the microscopy centers
- To provide DOT for the TB patient
- To ensure patient friendly community based care
- To promote capacity building at the community level ensuring sustainability of the programme

The need to involve the informal providers in TB care was also considered necessary because of decentralization of directly observed treatment (DOT) closer to the patients' place of residence. Their physical proximity with the community made them accessible to detect TB symptomatic and to provide DOT.

There are approximately 340,000 informal providers of which 36,016 have been trained in identification and referral of presumed cases and roughly 4,000 are estimated to be actively referring. Engagement of rural providers has been more systematic than that of urban providers and there is now an opportunity to expand engagement of these providers in both rural and urban settings. However, the model needs to be better defined in terms of types, numbers and location of the different providers engaged. Standardized referral and feedback systems need to be designed and introduced; these will include referral tools and appropriate feedback approaches.

Since 1998, the informal providers' model commonly refers to VD model has sensitized nearly 37,016 VDs in 102 Upazilla across 13 Damien Foundation supported districts. Data from DF-supported areas where the model is implemented suggests that, in those areas, it is

contributing 14 percent to case detection. Informal providers also provide more than 60 percent of DOTS in DF locations.

Process of engaging VDs: enlisting all VDs in the targeted districts is compiled from information obtained from the VDs Association and drug companies. Invitations ere sent out to VDs, in batches of 30 to 40, requesting them to participate in one-day training on TB. The training was organized in the government health centres and facilitated jointly by the Health and Family Planning Officer of the centres and the NGO staff.

Following the participation in the training programmes, the VD was expected to refer presumed TB case to the microscopy centre for diagnosis, carry out DOT for diagnosed TB patients, conduct contact tracing, maintaining drugs and records, and facilitate sputum collection and smearing centres. The VDs were regularly supervised by the DF staff during the course of treating patients.

VDs did not receive any financial incentives for TB services. Non-financial incentives included improved knowledge through participation in training events, improved credibility within community as VDs perceived their involvement in the TB activities increased their reputation, respect, social prestige and indirectly increased their patients' seeking care (non-TB).

However, current evidence suggested that there is a need to strengthen training for informal providers, particularly to improve their knowledge about disease, treatment services, and focus on prevention[3]. The VD model has the potential to improve patient centered TB care and scaling-up informal provider participation beyond DF areas in implementing DOTS across the country.

3.4 Social enterprise service delivery model

The social enterprise model (SEM) led by icddr,b engages the private sector through established screening centers (SCs) since 2014. The SEM has been working to increase Tuberculosis (TB) case detection and also to strengthen the TB management in the private sector through a network of over 5,000 private providers (PPs) in Dhaka metropolitan city. The presumptive TB cases identified from the private sector were tested at the screening centers using Chest X-ray and GeneXpert. The screening centers were equipped with digital X-ray using computer aided detection TB software, GeneXpert, spirometer and blood glucose monitoring systems.

This service delivery model implemented with continuous engagement of the PPs, public DOTS (smear negative presumptive TB) and with the community resulted in referral of presumptive TB cases to the SCs. In the last three years, more than 65,000 presumptive cases were tested in the SCs with GeneXpert and 9,921 of these were confirmed TB cases. Anecdotally, the highest number of bacteriologically positive cases were found in Dhaka during 2015 and the increasing trend continued to result in subsequent increase in case detection in 2016.The diagnosed patients were initiated on treatment with DOTS from public facilities (71%) and through referring PPs (9%). Treatment success rate in the SEM model was 79%.

The SEM model is expanding in Chittagong and Sylhet metropolitan in 2017 with support from Global Fund, TB REACH and Challenge TB. This model needs to be expanded across all metropolitan areas of the country (with) synchronized action of proper referral to the nearest DOT center for treatment initiation, follow-up during the treatment period and to treat the TB cases with quality assured drugs. This model is designed to serve presumed TB cases

[3] *Q S Islam et al, Informal allopathic provider knowledge and practice regarding control and prevention on TB in rural Bangladesh, 2014, Int Health doi:10.1093/int health/ihu025*

accessing private sector with an aim at promoting early TB diagnosis using quality diagnosis, while also contributing to capturing notification of TB cases from the private sector.

3.5 Other interventions

There are several other interventions that have been also included under PPM in Bangladesh. Those include TB Services in Workplaces, community interventions, such as the Shasthya Shebika (SS) model, TB in prison have been reported as part of PPM. However, there is different view of keeping SS model in PPM as SS are considered as a part of community DOTS.

Promotion and integration of TB services in workplaces

TB control services into workplaces with a focus on factory settings are integrated by BRAC, in partnership with a number of associations. BGMEA established DOTS centers in the 11 clinics to operate for factory workers employed in 600 of roughly 3,500 factories. The Damien Foundation is also working in Dhaka Export Processing Zone (DEPZ) covering approximately 80,000 garment workers. BRAC is working in Chittagong EPZ, Karnafully EPZ and Comilla EPZ. Other initiatives have targeted Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA), Bangladesh Small and Cottage Industries Corporation (BSCIC) and Bangladesh Export Processing Zone Authority (BEPZA). Knowledge of TB prevention, transmission, and the need for treatment completion are poor among the workers, suggesting that more needs to be done to expand worker awareness of TB transmission and treatment adherence in workplace settings.

Shasthya Shebika service delivery model

BRAC delivers preventive and basic curative health services to the villagers through Shasthya Shebika (SS) who is the female community health worker selected from the community. Shasthya Shebikas are willing to provide voluntary services, and acceptable to the community. Currently the SS model is functional in the 42 districts of Bangladesh.

The SSs receive more than 3 weeks basic residential training backed up by regular monthly refreshers. For specific programmes such as DOTS, community-based ARI, or safe motherhood, the SSs were given additional training. Each SS covers around 200 to 250 households, and she makes at least 1 monthly visit to the households. During these visits, they disseminate health, nutrition and family planning messages, motivate to install tube-wells and sanitary latrines, identify and register pregnancy cases, identify TB presumptive cases for sputum examination, provide treatment for common illnesses and sell health commodities.

Shasthya Shebikas identify presumptive TB cases and refer them to the nearby health facilities for sputum examination. Individuals diagnosed as TB patients are given Directly Observed Treatment (DOT) by SS, usually at her house, under the guidance of the field level staff of BRAC. Shasthya Shebika receive US$ 6.4 as incentive after successful completion of treatment of a TB patient. The achievement of BRAC supported TB control programme in case finding has been linked to the contribution from Shasthya Shebika. The national data reveal that SS and NGFS contributed to 73,366 TB cases (35%) of all TB cases notified during 2015.

TB in prison

Provision of TB services in prisons has been undertaken by icddr,b, BRAC and DF. The approaches used have been diverse because the prison system in Bangladesh is varied. Only the largest national prison has a doctor though screening for TB is available in all prisons. Up to now, screening for TB has been done by project staff, but efforts are planned to train

inmates as TB screeners. Inmates diagnosed with smear negative or extra pulmonary TB are referred out for further evaluation. DOT is done by the prison paramedic with doctors doing follow-up wherever available. This model needs to be standardized to serve the requirements of NTP to increase case notification among the high-risk populations including prisoners.

Other innovative approaches

During the NSP period 2016-2020, beyond the above described PPM models, it is expected that NTP and partners will also implement innovative approaches to strengthen TB care in the country. The innovative service delivery initiatives will aim to strengthen case-finding, in particular to detect missing cases from the community, and promote patient centred tuberculosis care.

The below list are only illustrative and innovative service delivery models to be tested during 2016-2020 will need to be driven by the contextual realities, and such analysis to accordingly inform PPM service modelling with appropriate PPM engagement strategies aimed at improving TB care.

1. Certification of graduate and non-graduate private providers: engage the private practitioners after 'certification' – in a tiered approach to provide either or ALL of the following services: presumptive TB case referrals for diagnosis, providing DOT for diagnosed patients, and recording and reporting. The core question whether private sector can actually 'diagnose and treat' TB patients may be answered when certification of GPPs is completed, and practice ensures compliance with diagnostic and treatment criteria laid out by NTP and under ISTC.
2. Designing specific PPM initiatives for urban areas – targeting slum populations, allowing poor and needy population to access quality assured diagnosis and patient centred TB care services. PPM initiatives to target most-at-risk populations.

4. POLICY AND REGULATORY ENVIRONMENT FOR PPM

Familiarization with existing policies and regulations will facilitate effective implementation of PPM activities in the country. Regulatory frameworks pertaining to provision of diagnostic and treatment services in the private sector, including regulation of pharmaceutical production and over the counter sale of anti-TB drugs are essential components in creating a favourable environment for PPM implementation. NTP has made substantial progress in creating an enabling environment for implementation of public-private mix activities for TB control.

Public-private mix working group

The NTP has formed a PPM working group at the national level involving the PPM focal point and advisor at NTP, and key members representing WHO, BRAC, DF, ICDDRB, Challenge TB and BPA.. The working group will report to the TB technical committee and, with assistance from partners, produce specific deliverables such as:

- A strategic vision that is clear on activity mix (e.g., private can treat (icddrb model) or all must refer (all other models))
- A geographic analysis of PPM coverage: estimated # of each provider type in each area, vs number engaged. Update at least annually
- A costed action plan to expand engagement to more providers an update of the 2006 PPM guidelines, including associated tools.

The terms of reference for the PPM working group are as follows:

1. Regular liaison with partners and professional bodies for implementation of the PPM activities
2. Monitor the progress and impact of PPM activities
3. Monitor the progress of engagement of private providers/institutes
4. Monitor the progress of mandatory notification in collaboration with the taskforce
5. Work closely with the division and district level NTP/partners in planning and implementation of PPM activities
6. Pursue all the recommendations made by the PPM committee
7. Report the progress in PPM initiative every six monthly to the PPM committee
8. Coordinate implementation of all training activities of PPM
9. Collect quarterly PPM report and disseminate with feedback to the respective partners
10. Produce an annual report on PPM activities
11. Define the need for external technical assistance and develop scope of work

Task force on mandatory notification

The END TB strategy highlights the need to enforce mandatory notification of TB cases. In the context of Bangladesh, there are TB cases managed by the private care providers that are not

linked to the national TB programme. The under-notification of cases reported by NTP affects the disease surveillance, contact investigation, outbreak management and infection control.

An effectively enforced legislation that includes compulsory notification of tuberculosis by all health care providers was therefore deemed essential. NTP and partner's advocacy efforts for a policy on mandatory notification resulted in the Government of Bangladesh declaring TB as a notifiable disease through a Gazette in January 2014 (Annex 1). PPM implementation during 2016-2020 is expected to facilitate the enforcement of the legislation on mandatory notification.

As a first step, a task force on mandatory notification has been constituted by the NTP engaging all key stakeholders representing MBDC, NTP, BRAC, DF, ICDDRB, Challenge TB, BPA and other members to facilitate smooth implementation of mandatory notification of tuberculosis within the country. The terms of reference for the taskforce on mandatory notification are as follows:

1. Assess present landscape for mandatory notification
2. Formulate operational plan for mandatory notification
3. Maintain regular liaison with partners and professional bodies for implementation of the mandatory notification
4. Work closely with the division, district level and city corporation NTP/partners
5. Implement recommendations made by PPM committee in regards of mandatory notification and seek further guidance of the PPM committee
6. Monitor and evaluate progress of mandatory notification and inform PPM committee
7. Report the progress on mandatory notification every three monthly to the PPM committee and seek further guidance
8. Identify bottlenecks and suggest probable solutions
9. Define the need for external technical assistance and develop scope of work
10. This task force will report to the PPM committee.

Initial steps towards operationalising the mandatory notification include:

- Conducting situational analysis and landscape assessment of providers
- Sensitising care providers on importance of notification through training, and orientation using appropriate communication materials
- Disseminate gazette notification through electronic, print media on regular intervals
- Develop appropriate and simplified tools for notification, including paper-based, web-based and mobile applications as relevant
- Engage intermediary agencies to facilitate notification
- Capacity development at NTP to host (e.g., server, logistics) notification data using the MIS.

Operational plans to be developed on mandatory notification may need to adopt 'facilitating' and 'authoritarian' approaches while engaging private providers to ensure effective enforcement.

5. INTERNATIONAL STANDARDS OF TB CARE AND PATIENTS' CHARTER

During the period 2016-2020, the NTP is adopting the International Standards for Tuberculosis Care (ISTC) to foster and guide the delivery of high-quality TB care by all providers. Evidence suggests that clinicians, in particular those working in the private sector, often deviate from standard, internationally recommended TB management practices. Given the large private sector in the country, inappropriate case management will lead to substandard TB care for populations and increase the drug-resistant tuberculosis within the country. The purpose of using ISTC is to describe a widely accepted level of care that all practitioners, public and private, should seek to achieve in managing patients who have or are presumed of having tuberculosis. ISTC comprise a total of 21 standards, which address 4 main categories of activities: diagnosis, treatment, HIV infection and other co-morbid conditions, and public health. The PPM working group in consultation with the National PPM committee is integrating ISTC in to the National policy documents, and operationalising the standards of ISTC in implementing TB activities.

Initial implementation steps include:

- Adopt ISTC guideline within the county context (adaptation completed, requires NTP endorsement and implementation)
- Orient care providers in both public and private sectors (health facilities, individual providers) on ISTC by engaging professional bodies and/or local health authority
- Incorporate ISTC as a component in relevant training programmes by NTP and partners
- Included updated ISTC as part of medical curriculum

The rational use of anti-TB drugs, and standards of medical practice will be developed through promoting the international standards for TB Care (ISTC) among private doctors and hospitals.

Patient charter

The Patients' Charter for Tuberculosis Care outlines the rights and responsibilities of people with tuberculosis. The charter aligns with the principles on health and human rights of the United Nations, WHO, National charters, WHO Ottawa charter on health promotion. The charter has been developed in tandem with ISTC to promote patient-centered approach, and empowers people with TB and their communities. The patient charter practices the principles of greater involvement of people with tuberculosis, and sets out the ways in which patients, community and health providers (public and private), and governments can work as partners in a positive and open relationship with a view to improving tuberculosis care.

Patients' rights to care, dignity, information, choice, confidence, justice, security and organisation have been emphasised, while patients' responsibilities to share information, follow treatment, contribute to community health and showing solidarity to other patients have been described in the patient charter. NTP and partners are working together in advancing the principles of patients charter for TB care in the country. Initial implementation steps include:

- Build awareness on patient charter targeting primary audience (e.g. community people, patients' community, labour organisation etc.)
- Orient care providers and patients forum on patients' rights
- Develop materials to promote patient charter concept

6. OPERATIONAL GUIDANCE FOR PPM IMPLEMENTATION

The objectives of national PPM strategy align with the National Strategic Plan's 7 key objectives highlighted in table 1. PPM implementation aims to promote patient centred care and support the programme to achieve set targets for case detection and treatment success. The NTP will facilitate collaboration with private institutional and individual providers for delivering quality TB services. The assistance provided to these providers will include: i) technical guidance on using NTP guidelines and the PPM guidelines ii) training; iii) provision of TB drugs and logistics; v) supervision and monitoring; vi) ensure proper recording and reporting; and vi) input towards advocacy, communication and social mobilization.

The NTP will provide leadership and strategic direction towards the implementation of the PPM activities. The NTP central PPM unit led by the PPM focal point and core NTP advisory support augmented by the PPM working group will facilitate implementation of PPM activities during NSP 2016-2020. Experiences from existing PPM service delivery models of care will provide the basis for national scaling-up.

Steps for sequential implementation of PPM activities

The steps for sequential implementation in selected areas will include the following:

1. Preparation
    a. Assigning PPM responsibilities to a designated staff in the health centre
    b. Training of responsible health centre staff on PPM
    c. Sensitisation of health staff
    d. Organising supply of drugs and other materials
2. Listing of providers
    a. Line-listing of providers will be done on the basis of available information from different sources (ex. professional bodies, drug companies etc)
    b. Prioritisation of providers on the basis of potential TB case load and willingness to collaborate.
3. Sensitisation and training
    a. Providing relevant and updated information on DOTS
    b. Dissemination of appropriate advocacy and IEC material
    c. Organising training of relevant providers based on mutual convenience
    d. Make agreements with providers willing to collaborate
    e. Dissemination of NTP, PPM guidelines, ISTC and other relevant material.
4. Advocacy, Communication and Social Mobilisation
    a. The NTP strategies on ACSM will address the engagement of private providers. This will enable the private providers to receive support in their respective areas of operation.
5. Proposed task mix

6.1 PPM task-mix

NTP and partners have initiated an ongoing analysis to map diverse providers responsible in provision of TB care services in the country. This includes the listing of institutional and individual providers, and reviewing their current and potential engagement in providing clinical tasks and public health tasks necessary for TB control. For example, larger institutions such as medical college hospitals and private hospitals may have the capacity to undertake all clinical and public health tasks, while individual providers may be able to perform a few tasks within the spectrum of TB care services.

To guide the process, NTP and partners have developed a matrix defining the providers and which provider can take which activity as illustrated in the tax mix matrix below. This task-mix informs further planning for PPM activities, such as training and support required to engage the diverse private sector providers. Table 2 and 3 highlight the task-mix for individual and institutional providers respectively.

Table 2: Task-mix for Individual Providers

	TASK	Graduate PPs/Specialist physicians	Non/semi-qualified PPs (Informal HC Providers)
TASKS	Identify presumptive TB cases	✓	✓
	Refer presumptive TB cases	✓	✓
	Collect sputum samples	✓	✓
	Diagnose TB	✓	
	Prescribe treatment	✓	
	Provide DOT	✓	✓
	Inform TB patients about the disease	✓	✓
	Notify cases	✓	

Table 3: Task-mix for Institutional Providers

	TASK	NTP all Levels	NGOs	Public institutions[4]	Academic institutions[5]	Private institutions[6]	Prisons	Corporate/ workplace	Private labs
CLINICAL TASKS	Identify presumptive TB cases	✓	✓	✓	✓	✓	✓	✓	
	Refer presumptive TB cases	✓	✓	✓	✓	✓	✓	✓	
	Collect sputum samples	✓	✓	✓	✓	✓	✓	✓	✓
	Do smear microscopy	✓	✓	✓	✓	✓	✓	✓	✓
	Diagnose TB	✓	✓	✓	✓	✓	✓	✓	
	Prescribe treatment	✓	✓	✓	✓	✓	✓	✓	
	Provide DOTS	✓	✓	✓	✓	✓	✓	✓	
	Inform TB patients about the disease	✓	✓	✓	✓	✓	✓	✓	
PUBLIC HEALTH TASKS	Notify cases	✓	✓	✓	✓	✓	✓	✓	✓
	Identify or link with DOTS providers	✓	✓	✓	✓	✓	✓	✓	
	Follow-up patient treatment adherence	✓	✓	✓			✓	✓	
	Contact tracing/ investigations	✓	✓	✓			✓	✓	
	Training of care providers	✓	✓		✓				
	Supervision & monitoring	✓	✓					✓	
	Evaluation	✓	✓						
	Quality assurance for laboratories	✓	✓						
	Drugs and supplies management	✓	✓						
	Advocacy, awareness	✓	✓				✓	✓	
	Stewardship, financing and regulation	✓							

[4] *CDH, CDC, IDH, CBC, District hospitals and UHCs, Police, Railway, or Armed forces hospitals or facilities.*

[5] *Public and private academic medical college hospitals, post-graduate medical institutions (e.g. BSMMU) and research institutions (e.g. IEDCR).*

[6] *Private hospitals that are not teaching institutions.*

6.2 Practical tools for PPM implementation

NTP will utilize practical tools to facilitate implementation, monitoring and evaluation of PPM initiatives.

1. Contracting tools such as the Memorandum of Understanding (MoU) to formalize partnership between institutional providers and the NTP or a Letter of Agreement (LoA) to establish effective linkages with individual providers. These tools will be drafted through mutual consensus and are expected to clarify the expected roles and responsibilities of the collaborating partners (Annex 2 and 3).

2. Routine recording tools for PPM include referral for diagnosis/laboratory request form, referral for treatment, feedback or back-referral and transfer formats, laboratory and TB registers, patient identification card, treatment cards will record the private sector participation.

3. Quarterly reporting tools for case finding report referrals from private sector which is based on the Upazilla submitting a 'report on referrals' from PPM providers (Annex 4). Similarly tools such as quarterly report on treatment outcomes, sputum conversion will facilitate monitoring of private sector contributions.

6.3 Training for Public-Private Mix implementation

To ensure effective participation of the private sector partners in TB control, it is imperative to provide adequate training to the diverse categories of private providers. Developing an effective training strategy for engaging private provider will include the following:

1. Determine the task mix
2. Formulate need-based training material for different providers
3. Adapt methods to the local context and working conditions of the providers
4. Develop materials and programmes using or adapting available TB training modules
5. Devise a follow-up structure linked to ongoing programme supervision activities
6. Revise training programmes based on evaluations

Training of all NTP and National NGOs core staff on PPM is essential, followed by assessing the training needs of the private sector providers. NTP needs to consider revising and adapting the following available training material during 2016-2020.

1. Modular course for TB management for institutional medical officers
2. Workshop for institutional providers
3. Laboratory course on microscopy and laboratory technologists
4. Orientation course on DOTS for PPs
5. Orientation course on DOTS for non-qualified PPs
6. Short orientation course on DOTS for pharmacists/drug sellers
7. Orientation on DOTS for community volunteers

The training programmes will be led by a team with a mix of senior NTP and Partner core staff along with recognized experts from the private sector to secure buy-in, build credibility and acceptance within the private sector.

6.4 Incentives and enablers for PPM

The NTP has adopted well-designed incentives and enablers to engage the private care providers in TB control. Financial incentives are mainly given to Shasthya Shebikas for ensuring treatment completion (US$ 6.4 per successfully treated patient). Application of any such financial incentives will need to be driven based on the contextual settings. Negotiating collaborative arrangements with professional associations, institutions managing a large number of presumed TB and TB patients, or when scaling up-PPM initiatives may call for innovative financial incentivising mechanisms. Such innovative incentives are aimed at reducing the catastrophic expenditures for TB patients incurred in the pathway to TB care.

Individual providers and community volunteers will find non-financial incentives attractive and these enablers include: access to free anti-TB drugs for DOT provision, opportunity to serve the community, access to free training and continuing education, access to free diagnostics, recognition due to formal association with a government programme and potential to positively influence their credibility and business expansion locally. Other enablers include accreditation of the private medical institution, laboratories and individual providers by NTP, provision for awarding best PPM performer to institution and individual providers annually and supply for NTP affiliation signboards to the private providers.

6.5 Certification and accreditation

NTP's certification of a provider is an official acknowledgement that the provider has met the appropriate criteria to provide the services being certified. Certification requires compliance with a uniform set of standards. Along with the NTP guidelines, International Standards for TB Care's total 21 standards addressing the 4 main categories of diagnosis, treatment, co-morbid and public health will facilitate setting up standard criteria that private providers will need to comply with for certification. During the NSP 2016-2020, NTP and partners may consider certifying private sector providers only for diagnosis, or treatment, recording or reporting, either one of these or all of these based on training and compliance meeting requirements of the providers. To ensure a smoother start, certification may be informal, gradually evolving in to a standardized procedure for formal certification. Accrediting private laboratories to carry out smear microscopy or Gene-Xpert testing need to also comply with standard diagnostic criteria. Periodic evaluation of the certification system and the criteria used for it should be undertaken to continue re-certification or de-certification of providers. The initial steps towards establishing certification and accreditation may include the following:

1. Defining target groups and facilities for certification and accreditation (eg. diagnostic laboratories, institutions, individual providers etc)
2. Develop system for certification and accreditation (authority formation, logistics etc)
3. Set criteria, norms and forms for certification and accreditation (cash or kind)
4. Develop vigilance system to ensure adherence with the NTP guidelines and set standard criteria

6.6 Monitoring and evaluation

NTP and partners will coordinate to supervise, monitor and evaluate PPM activities. The objective of M&E will be to measure the contribution of private providers to TB control, more specifically to examine their contribution to case finding and improving treatment outcomes. To improve monitoring and evaluation of PPM, the schedule for visiting engaged private

providers will be formalized and documented so there is regular education, advocacy and monitoring, so that the percentage of actively referring private providers can be calculated. Conduct a national situation assessment of PPM to better understand the infrastructure, resources, and systems being used for PPM activities in Bangladesh data collected during the national situational assessment will be used in assessing the capacity of NTP and partners working in PPM, and supporting implementation of the national PPM strategy.

Indicators to monitor the quality of diagnostic and treatment services offered through PPM activities need to align with the broader indicators, specific objectives and targets of the National TB control programme.

Core PPM specific indicators for monitoring PPM implementation are as follows:

1. Proportion of listed providers actively engaged by the NTP and partners
    - Numerator: Number of providers, by category (institutional and individual) who are participating in DOTS implementation (referral/diagnosis/treatment/reporting of TB cases)
    - Denominator: All listed providers in respective categories (institutional and individual)
    - Frequency of reporting: annual

2. Proportion of TB cases (all forms) detected by referral/diagnosis by different type of providers]
    - Numerator: Number of TB cases (all forms) among those referred by private providers (institutional and individual)
    - Denominator: All forms of TB registered
    - Frequency of reporting: annual

    Disaggregated data collection and analysis to ensure duplication is avoided.

Additional indicators for monitoring PPM implementation

- Proportion of districts/Upazilla that have implemented PPM activities
- Proportion of presumptive TB referred by private providers
- Proportion of TB cases diagnosed from referrals by private provider
- Proportion of TB patients receiving DOT from private provider
- Treatment outcomes among TB patients receiving treatment from private providers
- Other indicators: The effect of PPM in improving access to services among the poor, reducing diagnostic and providing financial protection for patients may need to be assessed through special studies.
- Percentage of funding for PPM activities, from domestic sources and international funding

Monitoring mechanisms: NTP and partners will revise the current recording and reporting formats to incorporate necessary elements going in to the selection of the above indicators.

Specific evaluation and operations research may be conducted to address questions such as cost-effectiveness of specific PPM service models, impact of PPM on diagnostic delays, equity in access, and identification of factors of success and sustainability.

ANNEX 1:

GAZETTE ON MANDATORY NOTIFICATION OF TUBERCULOSIS

স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
বিশ্ব স্বাস্থ্য-২ শাখা

বিজ্ঞপ্তি

তারিখ, ২২ জানুয়ারি ২০১৪

নং স্বাপকম/বিশ্বস্বাস্থ্য-২/Pro-1/GFATM-TB/2008(Pt-1)/৮০— বাংলাদেশে যক্ষ্মারোগ একটি প্রধান জনস্বাস্থ্য সমস্যা। উল্লেখযোগ্য সংখ্যক নারী, পুরুষ ও শিশু প্রতি বছর এ রোগে আক্রান্ত হন এবং কিছু সংখ্যক মৃত্যুবরণ করেন। সময়মত রোগ নির্ণয় ও নির্দিষ্ট মেয়াদের চিকিৎসায় এ রোগ সম্পূর্ণ নিরাময় করা যায়। কিন্তু ভুল রোগ নির্ণয় এবং অসম্পূর্ণ চিকিৎসার ফলে এ রোগ জটিল আকার ধারণ করে এবং বিস্তার লাভ করে। যথাযথ রোগ নির্ণয় ও ব্যবস্থাপনার জন্য বাংলাদেশের সকল যক্ষ্মারোগীর তথ্য জাতীয় যক্ষ্মা নিয়ন্ত্রণ কর্মসূচীর গোচরীভূত থাকা আবশ্যক। সুতরাং সরকার এ মর্মে সিদ্ধান্ত গ্রহণ করেছে যে, সরকারি এবং বেসরকারি সকল স্বাস্থ্য সেবা প্রদানকারী যক্ষ্মারোগীর তথ্য নিকটস্থ সরকারি স্বাস্থ্য কর্মকর্তার নিকট অবহিত করবেন।

কেস নোটিফিকেশনের জন্য যক্ষ্মারোগকে নিম্নোক্তভাবে সংজ্ঞায়িত করা হল ঃ

- Any patient diagnosed with sputum specimen positive for acid fast bacilli, or culture-positive for Mycobacterium tuberculosis, or NTP endorsed rapid molecular diagnostic test positive for TB

  Or

- Any patient diagnosed clinically as a case Tuberculosis, without microbiological confirmation, and initiated on anti-TB drugs.

বিস্তারিত তথ্য ও ব্যাখ্যার জন্য জাতীয় যক্ষ্মা নিয়ন্ত্রণ কর্মসূচি, স্বাস্থ্য অধিদপ্তর, মহাখালী, ঢাকা-১২১২ বরাবর যোগাযোগ করা যেতে পারে।

২। এই বিজ্ঞপ্তি জারীর ফলে বাংলাদেশে যক্ষ্মারোগ আবশ্যিকভাবে ঘড়ঃরভরধনষব উরংবধংব হিসেবে গণ্য হবে।

রাষ্ট্রপতির আদেশক্রমে
নাঈমা হোসেন
সিনিয়র সহকারী সচিব।

Annex 2: SAMPLE OF MEMORANDUM OF UNDERSTANDING (MOU)

MoU for Partnership in Implementation of Tuberculosis Control Programme in Bangladesh

1. Parties

1.1 The Directorate General of Health Services, Government of the People's Republic of Bangladesh, represented by the Director MBDC and Line Director TB/Leprosy, Directorate General of Health Services, Mohakhali, Dhaka (NTP) (hereafter referred to as the "Directorate") and

1.2 Private Sector

Partner ________________________________, hereafter referred to as "PPM partner" agree to coorperate in the implementation of the Public Private Mix (PPM) activities in the following geographic areas:

____

____

2. Background

The Public Private Mix (PPM) for DOTS aims to strengthen the involvement of the private sector in the provision of DOTS services in the above mentioned geographic areas through their participation in the dissemination of ACS, provision of referrals and client counseling to TB suspects/clients.

3. Duration and Renewal

3.1 This MoU will be in force from the date of signing and it will remain valid until (day) (month) (year).

3.2 This MoU can be extended for further periods with the consent of both parties in writing. The contract will automatically end on the last day of the contract if not renewed.

4. Principles of Collaboration

4.1 Implementation of the Tuberculosis Control Programme will be according to the national guidelines.

4.2 Implementation of the programme will eventually ensure availability and accessibility of quality health services.

4.3 Coordination between parties, mutual respect, trust and recognition of mutual expertise will be ensured within the overall national development framework.

4.4 Implementation of the programme will be in specific allocated areas.

4.5 Strengthening of integration of TB Control Services to the current health services

5. Contribution of the Directorate

5.1 Provide national guidelines for the Tuberculosis Control Programme

5.2 Ensure coordination/cooperation from relevant authorities with the PPM partner ______________________________

5.3 Supply operational manuals and other relevant publications, essential equipment (e.g. binocular microscopes), drugs, laboratory reagents, other consumable, recording and reporting forms, advocacy- communication-social mobilization materials.

5.4 Ensure access to referral facilities for consultation and hospital care of cases.

5.5 Ensure laboratory services wherever necessary and support quality control of laboratory services through cross checking of slides.

5.6 Provide overall supervision, monitoring, evaluation and feed-back.

5.7 Provide training to the relevant personnel of PPM partner ______________________________, subject to government policies.

6. Contribution of PPM partner

6.1 Implement the programme according to the national guidelines in above mentioned areas

6.2 Assume financial responsibility for the training of own personnel and normal implementation of the programme, i.e. all running costs except those mentioned in clause 5.

6.3 Work in coordination/cooperation with the relevant authorities, ensuring information and awareness of each other's work.

6.4 Implement the programme as in the best of experience and capacity and in cooperation with the health referral network.

6.5 Maintain properly in-kind non-perishable goods supplied by the Directorate and return on the expiry of the contract.

6.6 Proper use of drugs, laboratory reagents and other supplies, keeping adequate record on their consumption and submit timely indent for quarterly supply with consumption report.

6.7 Monitor and supervise the implementation of the programme jointly with local health authority and provide quarterly reports to the Directorate at each designated level.

6.8 Support supervisory and other visits by the Directorate whenever necessary.

6.9 Support and conduct ACS activities, observation of national / international days and

execution of special initiatives undertaken time to time through providing human resources and other necessary supports.

6.10 Provide training to DOTS providers i.e. community health volunteers

7. Right over information/data

All documents, information, statistics and data collected by the partner in the discharge of the obligation under the MOU incidental or related to it (whether or not submitted to the NTP) shall be the joint property of the NTP, and the partner.

8. Guarantees

8.1 Either party can terminate this agreement at any time with sixty days notice in writing indicating reasons for same to the other party. In-kind non-perishable goods will be returned to the Directorate at the point of termination of this agreement.

8.2 Incase of dispute, a final decision will be made by the MOH&FW

8.3 Failure to implement the programme as agreed upon in clauses 4,5,6 may lead to termination of this agreement.

This memorandum of understanding is signed today, the ______ (day) _______ (month) _______ (year).

For PPM partner

For the Directorate

Name and Address of PPM Partner

Director MBDC & Line Director
TB/Leprosy, DGHS,
Mohakhali, Dhaka 1212

NNEX 3: SAMPLE OF LETTER OF AGREEMENT

Date:

Director MBDC and Line Director TB & Leprosy

DGHS, Mohakhali, Dhaka, Bangladesh

Attention: Programme Manager TB, National TB Control Programme, DGHS, Mohakhali, Dhaka

Subject: Collaboration with the National TB Control Programme

With reference to the above regarding technical collaboration between the National TB control programme and ______________________________ (PPM partner), I am pleased to present the Letter of Agreement (LoA) to you for necessary action.

______________ (PPM partner) is delighted to collaborate with NTP Bangladesh, to help in TB control efforts. Our organisation is currently working in the geographic areas of:___________ and is providing services to (state approx. number of presumed TB cases/patients served)_____________ presumed TB cases/patients. With this collaboration, (name of PPM partner) __________________, will be able to expand its services to reach more clients and provide the following TB services:

- To identify presumed TB cases through pre-screening activities in the following areas:

  ____

- To attend the NTP sponsored training on DOTS, case management and other training provided by the programme
- To assist in the dissemination of ACSM material and other tasks assigned
- To assist in the implementation of PPM activities in collaboration with NTP, DOTS centre and other partners in the area according to National Guidelines.

We look forward to a mutually beneficial relationship with NTP.

Sincerely yours,

Name of Partner (designation and address)

Annex 4: REPORT ON REFERRALS FROM PPM PROVIDERS

Name of District .... Name of Upazila/Institution .... Name of UHFPO/Head of Institution .... Name & Signature of the UHC Coordinator/NGO/ Private Practitioner	Reporting Period Year [ ]	Date of completion of this form:..........200 Name & Signature of person completed the Form ....

Sl.	Provider wise Referrals	Presumed TB cases Referred for Diagnosis* (a)	Pulmonary **		Re-treatment Relapse Defaulter	Extra-Pulmonary ** (e)	Total Diagnosed** (b+c+d+e)
			New Smear Positive (b)	New Smear Negative (c)			
1	Specialized/Graduate Private Practitioner/ Medical Institution and Hospital (PP)						
2	Government Field Staff						
3	Non-qualified Private Practitioner /						
4	Pharmacy (PH)						
5	Shasthya Shebika (SS)						
6	Cured TB Patient (CP)						
7	Walk-in/Self-referred						
8	Others (O)						
Total							

* To be filled up from Lab Register where sputum microscopy facility available

** To be filled up from TB Register

		For Specialized/ Graduate Private Practitioner/ Medical Institution and Hospital	For Government field staff/Non qualified Private Practitioner / Village Doctor / and Pharmacy	For Volunteers (e.g.: Shasthya Shebika and Cured TB Patient)	Others	Total
Orientation /Training:	No. of Sessions Conducted					
	No. of Participants Attended					
Workshop:	No. of Sessions Conducted					
	No. of Participants Attended					

ANNEX 5: REFERRAL SLIP FOR TB PRESUMPTIVES

সম্ভাব্য যক্ষারোগীর রেফারেল স্লিপ

ক্রমিক নং.........

তারিখ :...........

রেফারকারীর নাম : ....

সম্ভাব্য যক্ষারোগীর নাম : ....

বয়স : .... লিঙ্গ ঃ ☐ পুরুষ ☐ মহিলা

সম্ভাব্য যক্ষারোগীর মোবাইল নম্বর : ....

রেফারের স্থান : ....

সম্ভাব্য যক্ষারোগের লক্ষণ : ....

☐ কাশি

☐ অন্যান্য লক্ষণ...

পরীক্ষর ধরণ:

X-ray ☐

Gene Xpert ☐

World Health Organization

Bangladesh