JOTS EXPANSION WORKING GROUP

WHO/CDS/TB/2003.325

# **Public-Private Mix for DOTS**

Practical tools to help implementation

TB Strategy and Operations Stop TB Department





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## This document was prepared by Knut Lönnroth and Mukund Uplekar

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# Abbreviations and acronyms

DOT	Directly Observed Treatment
DOTS	The internationally recommended strategy for TB control
MoU	Memorandum of Understanding
NGO	Non-Governmental Organization
NTP	National TB programme
PP	Private Provider
PPM	Public-Private Mix
PPM-DOTS	Public-Private Mix for DOTS
ТВ	Tuberculosis
WHO	World Health Organization

# 1. Introduction

DOTS is the internationally recommended strategy for tuberculosis (TB) control. Implementation of the DOTS strategy has greatly improved treatment outcomes among TB patients in both high and low-prevalence countries. However, the impact of DOTS on TB case notification has been modest. In 2001, DOTS and non-DOTS programmes together detected fewer than half (45%) of all estimated new TB cases; new smear-positive cases represented only one-third (32%) of the estimated total<sup>1</sup>. This indicates that a substantial proportion of TB patients lack access to or do not make use of services offered by national TB programmes (NTP).

# 1.1 DOTS and private health care providers

In many high-burden countries, a significant proportion of TB cases are detected and treated by private health care providers. Private providers (PPs) comprise for-profit as well as not-for-profit health care providers outside the formal public sector. Depending on the setting, they may include traditional healers, pharmacists, qualified and unqualified medical practitioners, specialist chest physicians, private nursing homes and hospitals and non-governmental organizations (NGOs). Except for patients who eventually receive treatment in NTP-supported clinics, TB cases managed in the private sector are rarely notified to NTP.

Studies in several countries have shown that TB management practices among private providers are often inadequate. However, little precise information is available either on the number of cases managed in the private sector or on their treatment outcomes. In some poor countries, individual private practitioners, qualified and unqualified, constitute the largest group of care providers for TB suspects and cases. Although efforts to involve the private sector in DOTS implementation are now under way in several countries, very little formal collaboration currently exists between NTP and private institutional or individual providers. In order to meet the global TB target of 70% case detection by 2005, NTP must find ways to collaborate productively with private health care providers.

# 1.2 PPM DOTS

WHO began exploring private sector involvement in TB control by first undertaking a global assessment of the prevailing situation<sup>2</sup>. A review of 23 countries across six WHO regions showed that most NTPs do not have an explicit strategy to involve PPs in TB control. However, the assessment revealed a variety of local initiatives attempting to explore effective ways of achieving a public–private mix for TB control.

Following the global assessment, WHO helped to establish and document public– private mix initiatives for DOTS implementation (PPM-DOTS) in a variety of country settings. These projects used diverse approaches to successfully involve PPs in DOTS implementation. An important feature common to all sites was the use of a few simple practical tools – agreements, referral forms and reports – to help initiate, implement and evaluate collaboration between the NTP and PPs.

# 1.3 A tools package for PPM DOTS

Building on these field experiences, this document presents a tools package for PPM-DOTS. Its aim is to help NTP managers begin involving PPs in DOTS implementation and to sustain collaboration. However, the utility of any tools package designed to help implement PPM-DOTS can only be secondary to the genuine willingness and preparedness of NTPs to work with the private sector. Although the decision to involve PPs in DOTS implementation rests with the NTP, private provider involvement in any capacity is essential if NTPs hope to control TB and eventually eliminate it as a public health problem.

Countries facing TB as a public health problem must consider two major issues: the current and potential role of PPs in TB control within the context of health sector reforms and the preferences of people and TB patients for health care providers. Depending on the setting and characteristics of care providers, the role expected of PPs may range from referral of TB suspects to the NTP, through shared management of TB patients to total implementation of DOTS by individual or institutional PPs. The tools package presented in this document may be adapted to what is agreed jointly by the NTP and the PPs. The individual tools may be further modified on the basis of their use in programme conditions.

The following sections present a generic PPM-DOTS prototype emerging from working models, the tools proper, their use and evaluation of their effectiveness.

# 2. PPM DOTS Models

A variety of public–private mix delivery models are being tested or proposed in Kenya<sup>3</sup>, India<sup>4,5,6</sup>, Indonesia, Philippines and Viet Nam<sup>7</sup>. The PPM-DOTS models are site-specific but in all models a single "PPM-DOTS Agency" assumes overall responsibility for delivery of TB care to a defined area or population. Specifically, this agency is responsible for ensuring the essential DOTS elements in TB care provision, such as quality assurance for sputum microscopy, provision of uninterrupted drug supply, support when required for direct observation of treatment, retrieval of defaulting patients, and recording and reporting essential details of each case.

# 2.1 The emerging generic prototype

The PPM-DOTS prototype is depicted in Figure 1. The most important element is government commitment and willingness to support the private sector in DOTS implementation. Government stewardship will send the right signals to the central and peripheral levels and help minimize any resistance or reluctance that NTP staff may have in working with the private sector.

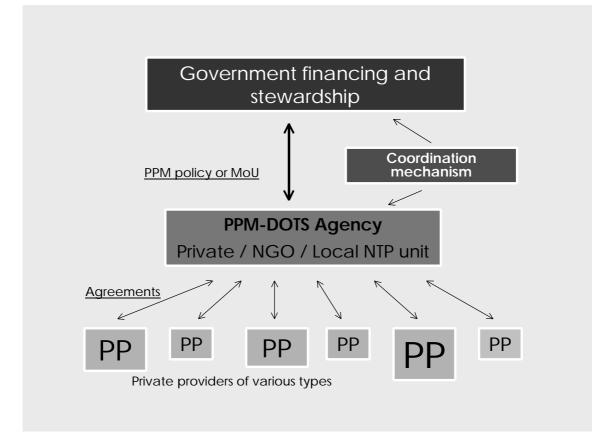


Figure 1. The emerging PPM-DOTS prototype

The box at the top of Figure 1 represents the public sector or NTP at the central, provincial or local level equipped with and supported by a national PPM-DOTS policy. Pending development and adoption of a national policy, local levels of the NTP could sign a Memorandum of Understanding (MoU) with an intermediary PPM-DOTS agency detailing the terms and conditions. A PPM-DOTS agency would typically be an NGO, a private hospital or institution or a medical association. The NTP should provide training, drugs and supplies, and the PPM-DOTS agency should help implement DOTS in a given area. An NGO or private hospital might implement DOTS through its own health service outlets or through a network of willing institutional or individual PPs operating in its area. Although it is likely that NGOs and private institutions might find it easier to work with PPs – and vice versa – the PPM-DOTS agency need not be a private institution or NGO: it could well be a local public health centre or an NTP clinic with resources available for and staff oriented and assigned to work with PPs for DOTS implementation. In franchising parlance, the NTP could be the "franchiser" and the PPM-DOTS agency the "franchisee".

A coordinating mechanism involving all representatives could alleviate initial misgivings and help build, enhance and sustain collaboration.

## 2.2 The public-private task mix for DOTS

Table 1 lists the main tasks involved in DOTS implementation. Depending on the capacity and willingness of the public and private sectors, different combinations of public–private mix may be possible. The public health sector is generally expected to carry out all the tasks. A private institution or PPM-DOTS agency may also be able to undertake all or most of these tasks through a "franchise". However, it should seek support from the local public health services for certain areas, such as training and default management, and may also depend on the public sector for a regular drug supply, surveillance and monitoring. Individual private providers range from traditional healers and pharmacists to general practitioners and specialists. They form by far the largest part of the private sector for provision of care for TB control, and may be willing to undertake "medical" tasks more readily than "non-medical" tasks for which the public sector may have to provide support. Even an unqualified medical practitioner within the community may be able to perform many of the key functions: identify TB suspects, refer them for diagnosis, supervise treatment and maintain minimum essential records.

Task	National TB Programme	Private / NGO institution	Private practitioner	Private laboratory	Unqualified provider
Identify TB suspects	+	+	+	+/	+
Sputum microscopy	+	+	+/-	+	-
Make a diagnosis	+	+	+	-	-
Prescribe treatment	+	+	+	-	-
Supervise treatment	+	+	+	-	+
Retrieve defaulters	+	+/-	-	-	+
Maintain records	+	+	+	-	+/-
Case notification	+	+	+	+	-
Drugs and supplies	+	+/-	-	-	-
Training	+	+/-	-	-	-
Monitoring	+	+/-	-	-	-
Surveillance	+	-	-	-	-
Quality assurance	+	+/-	-	+	-
Evaluation	+	+/-	-	-	-

# 2.3 Unbundling DOTS

The success of a PPM-DOTS initiative will greatly depend upon listing the specific tasks involved in DOTS implementation — and then agreeing on who should carry them out and how and what supervisory mechanisms will ensure that each of the tasks is done satisfactorily. This breakdown of essential DOTS tasks that makes its implementation amenable to public-private collaboration, with public and private counterparts agreeing to share some or all the tasks as they befit their respective capacities. Furthermore, the possibility of breaking DOTS tasks down while still achieving desirable results underpins the development of simple tools to implement PPM-DOTS in field conditions.

# 3. The tools package

Referral mechanisms and information flow between PPs and NTP are virtually absent in most high-burden countries, including those with a large private sector. The purpose of the practical tools is to facilitate guided development of PPM-DOTS for improved TB case management and reporting through a proper referral and information system.

The appendices present some examples of practical tools used by different PPM projects. These may need adaptation to suit the local context.

# 3.1 Objectives and uses

The objectives and uses of the practical tools are several, including to:

- facilitate dissemination of NTP policies to non-NTP health care providers
- facilitate initiation and development of PPM-DOTS encourage communication among TB care providers
- improve access to quality DOTS services for people and patients seeking care from PPs
- decrease diagnostic delay and save costs of care to patients
- ensure essential data-gathering on TB diagnosis and case management
- institute a mechanism for feedback on cases to PPs to elicit sustained collaboration
- help improve monitoring of treatment outcome in patients treated by PPs
- improve TB case notification and surveillance
- help improve overall quality of TB management by PPs

# 3.2 The practical tools

The tools package includes the following elements:

# Tools to facilitate the development and maintenance of PPM DOTS

- General format for a Memorandum of Understanding
- General format for letters of intent and agreement with PPs
- General format for written guidelines

# Tools for strengthened information flow

- Referral form for sputum microscopy
- Form for referral of patients in whom TB has been diagnosed

- Transfer form for patients started on treatment
- Notification form
- Form for request of default tracing
- Feedback form

# Tool for improved treatment documentation by private providers

• Adaptation of NTP treatment card for use by PPs

# Tools to facilitate monitoring and quality control

- Quality monitoring forms
- Adaptation of NTP registers
- Adaptation of NTP quarterly reporting forms

# 3.3 Contracts of collaboration

Once NTP and PPs have agreed to collaborate in mutually acceptable ways, the terms of collaboration should be formalized by preparing and signing a contract with the concerned parties. National TB programmes could thus sign a Memorandum of Understanding (MoU) with DOTS Agencies which in term may use a letter of agreement with individual practitioners. Obviously, if PPs are expected to play a limited role, for instance only referring suspects or notifying cases, formal contracts may not be required.

# 3.3.1 Memorandum of Understanding

Some of the basic elements of an MoU include:

- aim and specific objectives of collaboration, preferably with well-defined targets
- roles and responsibilities of private and public providers with regards to diagnosis, referral, treatment, monitoring functions, etc.
- division of financial and staffing responsibilities
- potential areas of conflict of interest and agreed strategies to overcome them
- mechanisms of monitoring and evaluation of the collaboration

Appendix 1 provides a sample MoU developed by an NTP to facilitate contracting between a district-level NTP (referred to as the "District TB Control Society") and an NGO<sup>8</sup>. The format is intended for not-for-profit organizations but may serve as an example of an MoU with any NGO.

# 3.3.2 Letter of Agreement

Letters of agreement may be simple and brief to ensure that collaborating practitioners have willingly accepted to undertake some important functions. It is particularly important to ensure accountability if the NTP entrusts a PP with responsibility for administering drugs to patients and for maintaining records thereof. The terms of collaboration should therefore be discussed and agreed upon as a component of recruitment of PPs and during information and training workshops. The need for a written agreement should also be discussed. Appendix 2 provides a sample Letter of Intent between an individual PP and a DOTS agency.

## 3.4 Guidelines

Guidelines are needed in order to:

- assist PPs to perform TB control activities appropriately (TB case management guidelines)
- facilitate operationalization of a PPM and the use of forms (operational PPM guidelines)

The guidelines can be combined into one document. Guidelines for TB management already exist for NTPs. However, no specific guidelines exist for PPs. The NTP guidelines should be adapted for use in the private sector. The content of the guidelines will depend on the PPM structure agreed. Suggested components of a guideline for PPs involved in all aspects of TB management may include:

# General information

- TB and its epidemiology
- NTP nationally and locally

## Case management

- Diagnosis and treatment categories
- Choice of treatment regimen
- Monitoring and treatment evaluation routines
- Management of side-effects and treatment complications
- Default management
- Options for patient-centred directly observed treatment (DOT)
- Patient education

# Public-private mix operational information

- Use of forms for notification, referral, transfer, TB treatment card, etc.
- Useful places, contacts, their roles and contact details

# 3.5 Notification form

Notification forms for PPs do not exist in most high-burden countries. Regardless of the level of involvement of PPs in TB control, a system for notification should be in place. National TB programmes must communicate with PPs to agree the most appropriate way for PPs to notify TB cases. The following information is needed in a notification form:

# Minimum requirements

- Sender identification (ID) (name and address or ID number)
- Patient ID (name, address, age and sex)
- Date of diagnosis
- Result of sputum microscopy
- Type of TB
- Treatment regimen and case-management strategy

## Possible additional information

- Report of information given to patient
- Report of contact examination

A separate notification form may be needed when patients are not referred to the NTP for diagnosis or treatment. In this situation, notification means that a PP undertakes diagnosis and case management and only informs the NTP of this.

Alternatively, notification can be ascertained through triangulation of different sources such as referral form for microscopy, transfer form and treatment cards (see below). From these sources, it is possible to assess the number of patients sent by PPs and diagnosed in the NTP as well as the number of patients diagnosed and started on treatment by PPs.

Notification can also be used when private laboratories are contracted to perform sputum microscopy for patients referred by private physicians. If private laboratories are brought into a collaborative structure, they are able to contribute data on cases tested and detected. This can be done either through a simple notification form (to include the minimum requirements detailed above) or through entering data in a district tuberculosis register (see Appendix 9) and submitting information regularly.

# 3.6 TB laboratory form

A laboratory referral form is needed in order to:

- increase PPs' awareness of the need for sputum microscopy
- improve referral routines, help patients attend the appropriate diagnostic facility and thus improve early correct diagnosis
- monitor referral flows

The following information is needed in a laboratory referral form:

# Minimum requirements

- Sender ID (name and address or ID number)
- Patient ID (name, address, age and sex)
- Date of sputum collection
- Reason for referral (diagnosis or follow-up)
- Feedback section with place for results and laboratory serial number

# Possible additional information

- Clinical information
- Portion of slip to be kept by sender

A sample TB laboratory form is included in Appendix 3.

# 3.7 Patient referral form

A referral form is needed in order to:

- ensure that relevant clinical information is provided by the referring provider
- avoid duplication of work
- ensure appropriate continuation of treatment
- help patients attend the appropriate treatment facility and avoid long treatment interruption
- monitor referral flows

A referral form should thus be structured so that it is easy to convey the relevant clinical information, including precise diagnostic and treatment information. The following information is needed:

## Minimum requirement

- Sender ID (name and address or ID number)
- Patient ID (name, address, age and sex)
- Date of diagnosis and start of treatment
- Date and result of sputum microscopy
- Type of TB
- Treatment regimen

# Additional information

- Reason for transfer
- Remarks, e.g. concerning treatment complications and side-effects
- Feedback form to inform sender

Appendix 4 provides a sample of Referral form. Although transfer of TB suspects and patients from PPs to NTPs may be common, a reverse transfer is also possible. Patient default may happen in many ways and for many reasons. A patient may default after disease has been diagnosed but before treatment starts, or default during treatment. The patient may then turn to a PP, or buy anti-TB drugs in a pharmacy without a prescription. Normally, the NTP will have no means of finding out what has happened to the patient and no way of ensuring that treatment has been completed. In such a situation, the NTP should send the relevant patient information to a PP in a formal referral form, including advice on how to continue treatment.

Depending on the defined role for PPs and the infrastructure of the NTP, these forms may be combined and integrated in various ways. For example, one form may include several referral options – such as referral for microscopy, referral of a suspect without specifying the test requested, and referral for treatment of a patient in whom TB has already been diagnosed, etc. (Appendix 4 and sections 3.7)

Forms for referral of TB suspects could also be used for pharmacists, private nurses and other provider categories only involved in detection. Such forms need to be simpler than forms for private physicians, who are sensitized to treat TB. A sample referral form is included in Appendix 5.

# 3.8 Forms for feedback

Forms for feedback and back-referral are needed to:

- ensure that appropriate information becomes available to the sending PP
- acknowledge the efforts of PPs and their contribution to TB control
- assist PPs to maintain the trust of their patients including those not diagnosed as TB

Private providers who could make use of the NTP for diagnostic services often hesitate to do so for a number of reasons. One is that they fear they will "lose the patient" to the NTP or another PP. This may not necessarily mean that they are concerned with losing income from TB treatment. It may also mean that they fear losing a patient permanently for all future illnesses. The implication is that public sector services need to appreciate that the PP has referred a patient, offer sufficient feedback on results and acknowledge the PP's contribution to TB control.

Forms need to be structured accordingly. Even if a PP is not going to be involved in the treatment of a diagnosed patient, it is important that feedback is given on test results and planned treatment. The patient may return to the PP for other problems. It is important, therefore, that the PP knows what TB treatment the patient is receiving within the NTP, both for clinical reasons and for responsive collaboration.

A TB suspect sent to an NTP clinic for diagnosis and found not to have TB should receive information that the judgement of the PP was correct in referring for microscopy to rule out TB. The patient should then be advised to return to the PP for further treatment if needed. From a PP's perspective, there is competition for patients. It is essential for the PP that patient confidence is not lost. It is therefore important to build trust between PPs and the NTP.

For example referral forms for microscopy may be used for back referral to PPs (Appendix 3). The NTP laboratory should record all relevant data in the laboratory register and also note which PP referred the patient. The NTP laboratory may then complete the referral form and return it to the PP.

# 3.9 Tuberculosis treatment card

Treatment cards used in the NTP may be adapted for use by PPs if necessary. The treatment card should contain only the most essential information to make it easy for PPs to use. The treatment card recommended by WHO is shown in Appendix 6. The name and address of the PP should be written on the treatment card.

The "TB identity card" should also be prepared for any patient who starts TB treatment. The patient keeps the card. It contains the same initial information registered on the TB treatment card: name, age, sex, home address of the patient, name of Health Facility/Private Clinic, type of TB, date treatment started and regimen prescribed. It also includes spaces for the dates of follow-up appointments and any health education messages given to the patient.

# 3.10 Supervision form

Forms for supervision and quality monitoring are needed to:

- facilitate supervision of PPs
- document PP activities in a PPM
- facilitate the communication of PP experiences of the PPM and of the use of forms
- retrieve data on case detection and treatment outcome

It is essential to establish adequate supervision and monitoring of PP performance. This can be facilitated by the use of a supervision visit form for quality monitoring. A sample form is enclosed in Appendix 7, which may be used as an instrument both to assure quality of services provided by PPs and to collect information concerning PPs' experiences and perceptions of collaboration. Supervisory visits could also include data extraction from treatment cards.

Supervisory visits may be undertaken for each new case of TB diagnosed by a PP and notified to the NTP. A separate form for such a confirmation visit could also be developed.

Quality monitoring could be carried out by the NTP or by a non-governmental agency. However, data should be combined and compared with routine NTP data in order to enable a comprehensive assessment of the TB control efforts.

# 3.11 Adaptation of NTP registers

Existing NTP records, such as register of TB suspects, TB register, laboratory records and quarterly reporting forms, may be used after minor revision to include information about the role of PPs. There could be separate forms for reporting activities by PPs, and/or registers and reporting forms can integrate information from both the NTP and PPs.

# Register of TB suspects

Some NTPs maintain a register of TB suspects. Adaptation of the existing register is needed to:

- document patient's address
- report results of sputum examinations
- record whether the treatment card has been opened or not

The format used by the NTP can be adapted by entering the name of the Private Clinic in the space reserved to the name of the Facility. The form recommended by WHO is shown in Appendix 8.

# TB register

Adaptation of an existing NTP treatment register is needed to document:

- referral or transfer by a PP
- back referral to a PP for treatment of a referred case
- agreement by a PP to administer DOT with drugs supplied by the NTP
- treatment monitoring and outcome for patients treated by PPs

The format used by district-level NTPs can be used (Appendix 9). Patients treated by PPs can be entered into the regular register while place of treatment is entered in the column for "Name of treatment unit". Alternatively, a separate treatment register can be used for patients treated by PPs. The latter alternative is advisable since it will enable easy analysis of treatment outcome for those patients treated by PPs.

# Laboratory register

Adaptations of existing NTP laboratory registers are needed to:

- document when patients have been referred by a PP
- record whether the results of sputum microscopy have been referred back to the PP

The standard NTP laboratory register (Appendix 10) can be used in a PPM in two ways. First, it can be implemented, after minor revision, in accredited private laboratories in order to improve case notification. Second, NTP laboratories can enter information about the sending unit when patients are referred from PPs. National TB programme laboratories can also enter information on where results have been sent in case back-referral or other feedback forms are used.

# Quarterly reports

Adaptations of quarterly reports are needed to:

- report changes over time in case detection due to the involvement of PPs
- report changes over time in treatment outcome for patients treated by PPs

District-level reports on new cases and relapses (Appendix 11) and on results of treatment (Appendix 12) could be used for quarterly reporting on the involvement of PPs and supervision.

As a first step, separate reports may be used for various types of PPs, whereas in a second step of analysis, data can be collapsed into appropriate categories. Finally, data from the NTP and PPs can be entered into a common report form showing differences, if necessary.

Quarterly reports of management of the PPM model may also be developed that include information about the number of training activities, supervision visits made, drug supply, etc. Large institutional PPs may prepare and submit their own quarterly reports on patients managed by them.

# 4. Implementing the tools

Some general steps in the development and implementation of tools are:

- situation analysis with estimation of case-load in the private sector
- dialogue with relevant stakeholders
- establishment of a mechanism of coordination
- agreement on terms of collaboration
- adaptation or development of guidelines, referral forms, treatment card, registers, etc.
- sensitization of NTP staff and implementation of tools within the NTP
- sensitization, recruitment and training of PPs, and distribution of forms

The sequencing of tool implementation depends on the local context, status of the NTP and private sector, the current knowledge about PP involvement in TB treatment, and the level of current collaboration between the NTP and private sector. Some of the useful implementation components are discussed below.

# 4.1 Situation analysis

An easy first step for a situation analysis is to make minor adaptation of NTP registers. This may be done as a part of a situation analysis, without previous dialogue with PPs, and will enable documentation of the current situation with regard to informal referrals made by PPs to the NTP as well as the proportion of patients in the NTP who have previously been treated by a PP. This in turn will provide an indication of the present role of PPs in TB care. It could also be a first step in sensitizing NTP staff.

Different settings are at different stages in the process of understanding the conditions for private sector collaboration in TB control. Some settings have sufficient data to start the development of detailed agreements. In others, not even basic information on the types and numbers of PPs exists. Components to be included in a situation analysis should be based on existing information as well as the envisaged scope of the collaboration.

## 4.2 Dialogue, agreement and coordination mechanism

Dialogue among stakeholders is important to foster mutual understanding and agreement both about general collaborative structure and the details of forms and guidelines to be used. Dialogue and collaboration with a few PPs could be a first step, which may then lead to a gradual scaling up of activities. Informal agreements may be used to begin with and then formalized on the basis of actual experiences. Establishment of a coordination mechanism, formal agreements and any required MoU may be developed when activities are scaled up.

# 4.3 Adaptation or development of tools

As discussed above, the NTP can start adapting NTP registers. Other tools, such as referral forms, treatment card for PPs and supervision visit forms may be developed following dialogue with PPs and in accordance with the agreed collaborative framework.

The forms distributed to PPs can be limited to:

- Referral form
- TB treatment card
- Guidelines

The number of tools used by the NTP can be limited to:

- Adaptation of registers and quarterly reports
- Feedback form (laboratory form)
- Supervision visit form

To distinguish PPM forms and registers, the PPM tools can be of a different colour from the NTP stationery.

Ideally, PPs should be brought into the planning and development of forms and guidelines as early as possible to ensure that forms are suitable and that the messages in the guidelines are acceptable and understandable to the target group. In some settings, the NTP may wish to adopt an authoritative approach and may succeed in giving instructions to PPs on how to perform TB management according to the DOTS strategy. In other settings, it would be essential that PPs have some influence on how case management should be performed. Consensus building may be required around issues such as diagnosis of smear-negative cases, the use of DOT, the choice of treatment regimen etc.

# 4.4 Sensitization of NTP staff

For collaboration to be successful, NTP staff must be well informed of its rationale and planned operationalization. National TB programme personnel may be reluctant to become involved because of concerns for additional workload. It is important therefore that programme managers present the benefits of collaboration with PPs for TB control to encourage staff commitment to changes in work routines. A training programme for staff on how to implement collaboration should be developed. A part of such training should be dialogue with staff on the changes in routines that the collaboration involves.

## 4.5 Sensitization and recruitment of PPs

# 4.5.1 Who to target?

The possible tasks for different types of PPs are outlined in Table 1. All types of nongovernmental providers should be considered for inclusion in a PPM. The suitability and feasibility of involvement of different types of PPs will depend on the local context. As discussed above, PPs with which the NTP already has some contact should be targeted first. Once the collaboration is in place and working, the operations may be scaled up. Future PPs, i.e. medical students, should be targeted in the long term. Once a collaborative framework is in place, the role of PPs in TB control should become part of the TB training curriculum.

## 4.5.2 Create incentives

The NTP should provide clear incentives to PPs. These do not have to be financial although financial incentives may be of interest to PPs. Distribution of drugs and the provision of sputum tests free of charge are indirect financial incentives. The NTP could also offer training and general support to PPs for better case management. This is one of the most important aspects of the practical tools. Although tools might introduce new administrative work for PPs, they should also simplify a number of clinical and administrative procedures. Their main purpose is improved collaboration and information flow between providers, which should provide advantages to both PPs and the NTP.

PPM-DOTS may well improve TB care by enhancing patient satisfaction with and confidence in the health providers. This is of great importance for the perceived benefits of a PPM to PPs, since consumer satisfaction is of key significance to PPs and determines future health seeking. The rationale and potential benefits of PPM

need to be marketed to PPs in an appropriate way. NTPs also need to be responsive to the reasonable needs and expectations of PPs. It is for this reason that dialogue between stakeholders is essential.

# 4.5.2 *Minimize administrative barriers*

The busy and often disorganized routines of many PPs may be an obstacle for implementation of forms for notification, referrals and transfer. Use of practical tools should be feasible within the existing clinical and administrative environment in private clinics. In order to make the tools easy to use, they should be designed to:

- minimize the time and resource burden for PPs as well as NTP staff
- minimize the number of forms
- ease logistic and filing procedures

# 5. Monitoring and evaluation

A strategy for monitoring and evaluation of the PPM is advisable. Its purpose may be to:

- determine rate of referral, detection and notification by PPs
- monitor change in total case detection within a PPM area in order to determine if case detection increases and/or reaches a specific target
- determine quality of case management by PPs and treatment outcome (in relation to targets and/or in relation to quality and treatment outcome in public NTP facilities)
- monitor recruitment and involvement of PPs in the PPM
- monitor training and supervision activities within the PPM
- identify enabling and hindering factors for effective PPM

Table 2 below lists indicators for measure the outcomes of PPM DOTS interventions.

Outcome	Suggested indicators
Case detection	<ul> <li>Number of patients referred for microscopy</li> <li>Ratio of positive sputum smears to ordered sputum smears</li> <li>Number and type of cases detected through PP referral, transfer or notification, by type</li> <li>Total case detection in catchment area, by type</li> <li>Proportion of total case detection through PPs, by type and sex</li> </ul>
Quality of case management	<ul> <li>Proportion of patients receiving supervised treatment</li> <li>Proportion of treatment regimens prescribed correctly</li> <li>Proportion of sputum-positive cases evaluated with sputum smear at the end of treatment</li> <li>Proportion of patients with treatment cards completed correctly</li> <li>Proportion of defaulters traced</li> </ul>
Treatment outcomes	• Cure rate, treatment completion rate, treatment failure, default rate, death rate, transferred out, by type and sex
Equity in access	<ul> <li>Profile of patients attending PPs according to socioeconomic status</li> </ul>
Financial burden for patients	<ul> <li>Average direct and indirect cost of treatment (per month of full treatment)</li> </ul>
Process Recruitment of PPs	<ul> <li>Number of training / information sessions</li> <li>Number of PPs participating, by type and sex of PP</li> <li>Percentage of targeted PPs participating, by type and sex of PP</li> </ul>
Distribution and presence of tools	<ul> <li>Number of forms distributed, by type of form and type of PP</li> <li>Proportion of PPs having forms, type of form and type of PP</li> </ul>
Use of tools	<ul> <li>Number of PPs referring / notifying / transferring.</li> <li>Proportion of PPs using TB treatment card correctly</li> </ul>
Supervision activities	<ul> <li>Number of supervision visits</li> <li>Number and types of problems identified by supervisors</li> </ul>
Steering and collaboration	Number of meetings

## Quantitative outcome and process indicators

# 5.1 Data collection

The tools for PPM DOTS presented here could also function as data collection instruments for most of the indicators listed in Table 2. A simple logbook for recording PPM activities (meetings, educational activities, distribution of forms) will complement the data collected through the use of forms. The use of such a logbook should start as soon as the planning of the PPM starts. A routine for data retrieval and data management will have to developed.

Questionnaires for PPs and NTP staff may be developed in order to obtain further information on reported management, how forms have been used, and what experiences difference stakeholders have had about PPM.

Questionnaires for patients can also be developed in order to determine patients' experiences, describe the socioeconomic profile and other characteristics of patients treated by PPs, and determine patient-related costs of treatment.

In order to further analyse enabling and hindering factors for the PPM, qualitative methods can be applied, which may help in understanding different views, attitudes and points of disagreement among stakeholders. The evaluation can thus be complemented with semi-structured interviews of PPs, NTP staff and patients.

## 5.2 Interpretation of quantitative indicators

Measuring effectiveness of PPM-DOTS should include outcome indicators such as specific targets for case detection, quality of case management and treatment outcome as well as process indicators such as the number of participating PPs and the number of referrals from the private sectors. The first interpretation should be normative in order to assess whether PPM-DOTS helps achieve the defined targets.

A time series for case detection can be created (monthly or quarterly observations) of the number of cases notified by PPs as well as the number of combined cases diagnosed by PPs and public sector facilities. Historic case detection trends in NTP can be used to assess changes attributable to the introduction of PPM-DOTS.

In addition, case management and treatment outcome could be compared with a cohort of patients treated in NTP public facilities to determine how PPs perform in relation to public sector clinics. The socioeconomic profiles of patients as well as the costs of care could also be compared with patients treated in public sector facilities.

If baseline data on TB management in private clinics are collected, a before and after comparison can also be made.

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# MEMORANDUM OF UNDERSTANDING

#### 1. Parties

The District TB Control Society \_\_\_\_\_ [District Name] and NGO [Name of NGO], hereinafter referred to as "designated agency", agree to cooperate in the implementation of TB control activities to the population of \_\_\_\_\_ [geographical area] with a population of approximately 500 000.

The RNTCP aims to improve cure rates among tuberculosis (TB) patients, to more than 85%. To make the programme more effective, wider participation of local communities and private health care providers in TB control is required.

The designated agency is an organization of \_\_\_\_\_ [insert one sentence about the organization's involvement in health].

## 2. Period of cooperation

	The period of cooperation	shall be two years,	commencing th	e first day of
[month] of	[year] until the last of	[month] of	[year].	

#### 3. Objectives

The objectives of this Memorandum of Understanding are:

- a) To identify and establish the roles and responsibilities of the partners in the organization and delivery of TB care as per guidelines to populations referenced in Clause 1.
- b) To provide diagnosis and treatment services for TB control following the RNTCP strategy and thereby ensure an 85% cure rate.
- c) To develop the capacity of health care workers to diagnose and treat TB and implement the RNTCP.

#### 4. Terms, conditions, and specific services for the period of this agreement

- A. The District TB Control Society shall:
  - (i) Provide start-up and recurring costs to the designated agency as detailed in this Memorandum.
  - (ii) Provide anti-TB drugs to the designated agency. The amount of drugs provided will be sufficient to treat patients reported in quarterly reports and confirmed in the TB Register and through patient interview.
  - (iii) Provide overall monitoring and quality assurance, including monthly site inspection visits, cross-checking of laboratory and TB registers as well as other medical records.
  - (iv) Provide technical guidelines and updates (manuals, circulars, etc.) from the RNTCP to the designated agency and review educational materials to be used.
  - (v) Provide technical training for the STS.
  - (vi) Provide TB and laboratory registers, laboratory forms, as well as reagents for patients undergoing sputum examinations.

B. The designated agency shall:

- (i) Assume responsibility for executing this project in the target areas specified in Clause 1 following RNTCP policy outlined in the *Technical Guidelines for RNTCP*, and Laboratory *Manual for RNTCP*.
- (ii) Provide appropriate TB services according to RNTCP policy during the term of this agreement.

Adapted from reference 8.

## Diagnosis

- (iii) Provide its own medical officer, as its own sole expense, for diagnosis and treatment of tuberculosis. Liase with qualified private practitioners in the area to establish a screening and referral system through which TB suspects are sent to the designated laboratories for sputum examination. Develop a referral system through which TB suspects are sent to the designated laboratories for sputum examination. Develop a referral system through which functionaries of all public dispensaries and clinics operating in the area are able to refer symptomatic patients to the designated microscopy laboratories.
- (iv) Perform acid-fast bacilli microscopy and maintain the laboratory register as per the RNTCP, ensuring that every patient whose sputum is examined is recorded in the TB laboratory register. Perform laboratory quality control as required. Not charge patients for AFB microscopy. Arrange for feedback of results of sputum examinations to public and private providers who referred the symptomatic patients.
- (v) Provide health education to the community.
  - a) Generate health education and awareness in the community through meetings, discussion, posters, videos, slide shows and home visits.
  - b) Prepare and disseminate literature and training materials.
  - c) Inform the community about the dangers of TB, signs and symptoms, diagnosis and treatment facilities and prevention of TB through different local community forums. Cured patients can also play an important role in the identification and motivation of symptomatic persons for sputum examination and in ensuring that they take regular treatment. These patients can also be mobilized as health educators and DOT providers.
  - d) All microscopy/treatment centres shall have the following message prominently displayed in the local language:
    - (i) All diagnosis and treatment of TB are free of cost.
    - (ii) All persons with cough for 3 weeks or more should have 3 sputum samples examined.
    - (iii) TB can be cured.

## Treatment, including direct observation of therapy

- (vi) Provide anti-TB treatment as per RNTCP policy.
- (vii) Develop a system for direct observation and follow-up and return to treatment of non-adherent patients according to the RNTCP policy. Patients who miss a dose of treatment during the intensive phase are to be visited in their homes within one day of the missed dose, and, during the continuation phase, within one week of a missed dose.

## **Drug supply**

(viii) Maintain adequate inventories of drugs and consumables for smooth operation of the RNTCP in the area. Not charge patients who reside within the district for anti-TB medications given.

## Monitoring and supervision

- (ix) Appoint a senior treatment supervisor, who shall perform the duties described in the RNTCP *Operational Guidelines* for TB Control.
- (x) Maintain a TB register for the area and ensure that all patients who begin treatment and reside within the district are registered in the TB register of the RNTCP.
- (xi) Train TB workers according to the RNTCP policy.
- (xii) Prepare and submit monthly and quarterly reports (New and re-treatment cases, Sputum Conversion, Results of Treatment, Programme Management and Logistics) to the DTCS and according to RNTCP guidelines as per the schedule in this Memorandum; submit an annual statement of audited accounts for each year up to 31 March to the DTCS no later than 15 June.

## C. Grant-in-aid

The available budget is given below. This is to be released by DTCS to the NGO on a yearly basis.

## Start-up activities (one-time only)

Item	Amount (INR)
Civil works for upgrading microscopy centres (up to INR 20 000 per microscopy centre)	100 000 <sup>a</sup>
Funds for training of multipurpose workers and other staff <sup>b</sup>	40 000
Funds for training of multipurpose supervisors and related staff	4500
Sub-total available for one-time assistance	144 500

<sup>a</sup> Maximum amount for a TU, to be based on actual plans for renovation of the actual number of microscopy laboratories as detailed in the *Guidelines for the district tuberculosis control society* (May 1998).

<sup>b</sup> MO training to be paid for by District Tuberculosis Control Society. If MO training is not paid for by the DTCS, then grant-in-aid would be adjusted by the proportionate amount as per *Guidelines for the district tuberculosis control society.* 

## Annual grant-in-aid

Description	Amount (INR)
Personnel (NGO to ensure full-time, mobile staff to serve as senior supervisor and senior tuberculosis laboratory supervisor)	120 000
Honoraria for directly observed treatment (at INR 175/patient for an estimated 25% of the patients cured in the population covered by the NGO)	20 000
General support (to cover all administrative and technical costs of running the programme, including ensuring the presence of an MO of the TB unit, bookkeeping, annual auditing of account by a chartered accountant, POL and maintenance, phone calls, sending of facsimiles, photocopies, accounting expenses, etc.)	195 500
Amount available for annual assistance <sup>a</sup>	335 500

<sup>a</sup> See Memorandum of Understanding for full information on roles and responsibilities. If laboratory materials and reagents are not provided in-kind by the District TB Control Society, then this amount is increased by the actual cost of purchase of laboratory supplies and consumables at a rate of approximately INR 5 per slide for an estimated 2250 slides/100 000 INR/year. Flexibility of up to 15% is allowed, as in DTCS guidelines, for reallocation among budget heads.

## 6. Penalties/guaranties

- (i) Either party shall have the right to terminate the understanding at any time with 30 days' notice in writing indicating reasons for the same to the other party. In-kind goods must be returned at the point of termination of this agreement.
- (ii) If the other party wishes to continue the contract, it must respond in writing within 30 days of receipt of the termination notice.
- (iii) If a resolution between the two parties is not possible, then the state TB officer shall attempt to resolve the dispute. The state director of health services or his/her designee will make a final decision on this matter, if necessary.
- (iv) Failure to implement the project as agreed upon in clause 5 may lead to termination of this agreement.

## 7. Programme monitoring

If the proportion of sputum smear-positive patients is less than half the number of pulmonary cases receiving treatment, or if the sputum conversion rate at three months for new smear-positive patients is less than 85%, intensive supervision and evaluation will be carried out collaboratively.

#### 8. Programme evaluation

The NGO is required to submit to the DTCS quarterly reports on (1) new and re-treatment cases of TB, (2) sputum conversion of new cases, relapses and failures, (3) results of treatment of TB patients registered 12–15 months earlier, (4) programme management and logistics. The DTCS shall evaluate the performance of the designated agency in the implementation of this Memorandum of Understanding every six months in order to ensure the appropriate implementation of this agreement to assess the need for technical support.

## 9. Duration and Renewal

This MoU shall be valid from the first day of \_\_\_\_\_ [month/year] to the last day of \_\_\_\_\_ [month/year], unless terminated sooner by either of the parties hereto. The parties shall meet after the evaluation conducted at the end of the sixth months in order to discuss renewal of this agreement.

Signature of District Tuberculosis Officer	Signature of NGO Official

## List of abbreviations

RNTCP	Revised National Tuberculosis Control Programme
DTCS	District Tuberculosis Control Society
TU	Tuberculosis Unit
MO	Medical Officer
STS	Senior Treatment Supervisor

# LETTER OF AGREEMENT

Sub: Involvement of Private Practitioners in the	_		
, Dr			
to be involved voluntarily in the District TB Contro	of Programme in the following way/s:		
would like to:			
1. Refer my TB suspects for <b>diagnosis only</b> at	the government NTP centers	[	]
<ol><li>Refer my TB suspects for diagnosis and tre under the NTP</li></ol>	atment with free anti-TB drugs	[	]
<ol> <li>Act as DOT provider for this patient as per confirmed to have TB and provide the anti-TE NTP, free of cost to the patient</li> </ol>		[	]
<ol> <li>Act as DOT provider for any patient directed though s/he may not be referred by me</li> </ol>	to me by programme, even	[	]
Note: Please Tick $(V)$ to the appropriate option	n/s		
Name of the Doctor:			
Signature:			
Date and Place:			

Used by a PPM field project.

# TB LABORATORY FORM: REQUEST FOR SPUTUM EXAMINATION

manie or patie	ent		Age Sex: M 🗇 F 🗇
Complete add	Iress		
			District
Reason for ex			
-	iosis 🗖		
OR Follow	•	<b>_</b>	
	ification:	-	Extra-pulmonary D Site
	utum samples se		
			Signature of specimen collector
De Suie IO e	enter the patient's		for follow up of patients on TB treatment
(a) Visual app	RESULTS (t	um:	ted by Laboratory)
(a) Visual app Muco (b) Microscop	pearance of sputi	um: Blood	-stained Saliva
(a) Visual apr Muco	pearance of sputi	um:	-stained Saliva POSITIVE (GRADING)
(a) Visual app Muco (b) Microscop	pearance of sputi	um: Blood	-stained Saliva POSITIVE (GRADING)
(a) Visual app Muco (b) Microscop	pearance of sputi -purulent py: SPECIMEN	um: Blood	-stained Saliva POSITIVE (GRADING)
(a) Visual app Muco (b) Microscop	pearance of sputi -purulent by: SPECIMEN 1	um: Blood	-stained Saliva POSITIVE (GRADING)
(a) Visual app Muco (b) Microscop	pearance of sputi -purulent	um: Blood RESULTS	-stained Saliva POSITIVE (GRADING)

Adapted from: Management of Tuberculosis Training for Health Facility Staff WHO/CDS/TB/2003.314a-j

# PATIENT REFERRAL FORM

Tick and comment to indicate the reason for	or this referral:								
Referral to register and begin TB treatment									
Referral for									
Name/address of referring facility / Private	Clinic								
	· · ·								
Name/address of facility to which patient is	reterred								
Name of patient	Age	Sex: M 🔲 F 🗖							
Address									
Name/address of contact person for patien	t								
Result of tests with dates									
Diagnosis*									
District TB No* of patient	Date treatment	t started*							
Category of treatment:* CAT I New c	ase, smear-positive								
🖵 CAT II Retrea	atment								
🗖 CAT III New c	ase, smear-negative or E	P							
CAT IV Chron	ic or MDR-TB								
Drugs patient is receiving:									
Remarks (e.g., side effects observed)									
Signature	Date of referral *								
*Complete if known. If this is a referral for c	diagnosis, these items ma	y be unknown.							
For use by facility to which patient has b	been referred:								
Name of facility									
District [									
Name of patient	District TB No								
The above patient reported at this facility of	n	_(date)							
Signature I	Position								
Send this part back to referring facility / Private Clinic as soon as patient has reported.									
-									

Used by a PPM field project.

# **REFERRAL FORM FOR NON PHYSICIANS**

	Referral to the National TB programme for investigation
Date:	Date:
Patient's name:	Patient's name:
	therefore be of benefit for you to go to the National TB Programme for a TB test so that you can find out if you have TB. There is effective treatment for TB and the National TB Programme can help you get cured if you have TB. You don't have to pay anything for medicines in the National TB Programme. Bring this message to the District TB Unit in At (address) Where you will receive further help. Opening hours are:
Sender ID:	Sender ID:

The left part of the form should be kept by the referring provider; the right part should be brought to the District TB Unit by the patient.

Used by a PPM field project.

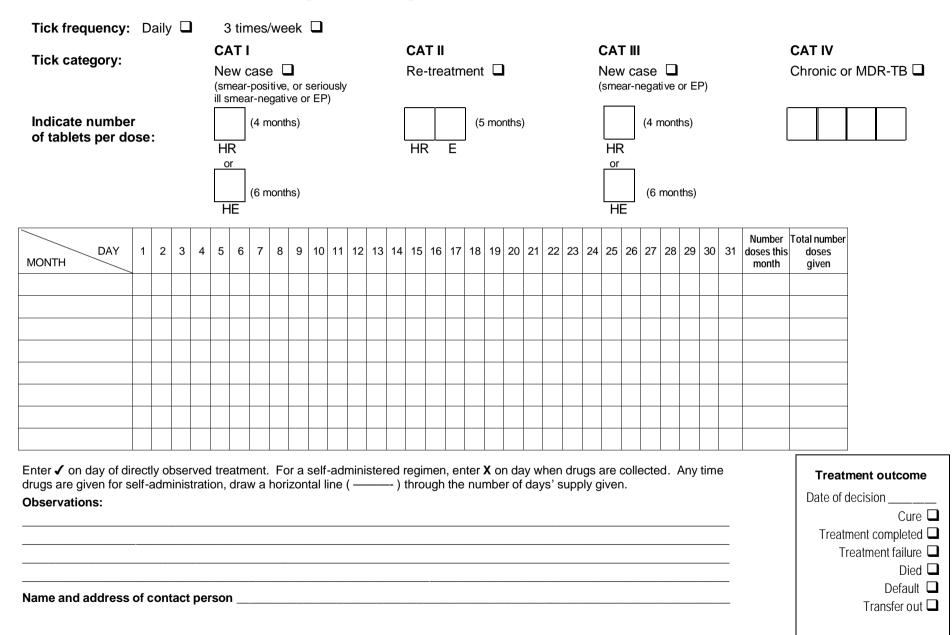
# Appendix 6 : TUBERCULOSIS TREATMENT CARD

Name			Name and address of tree	eating		
Complete address			Private Clinic			
	Age ommunity treatment supporte	r (if applicable)		Pulmonary	Disease site Extrapulmonary (specify)	
Tick frequency: Daily	rescribed regimen and dos 3 times/week cate number of tablets per CAT II	-	(grams): CAT IV	New 🔲 Relapse 📮 Transfer in 📮	Type of patient Treatment after fa Treatment after de Other (specify)	efault 🛛
New case (smear-positive, or seriously ill smear-negative, or EP)	Re-treatment	New case (smear-negative or EP)	Chronic or MDR-TB 🗖		tum examination	Weight
HR Z E [S]	HR Z E S	HR Z E		Month Date	Smear Lab. No.	(kg)
HR: isoniazid and rifampicin	Z: pyrazinamide E: ethambutol	S: streptomycin				
			19 20 21 22 23 24 25 26 27	7 28 29 30 31 doses		

DAY MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17 1	8 1	19	20	21	22 2	3	24 2	25 2	26	27 2	28	29	30	31	Number doses this month	Total number doses given	DATE	DOSES

Please turn over for continuation phase

#### **II. CONTINUATION PHASE** — Prescribed regimen and dosages



# Appendix 7

# SUPERVISION FORM

Private Clinic name:	Addr	ess:	Code:	
Date of visit: D	ate of previous visit:_		Visit number (to this Clinic):	
Supervisor's name:				
Referral form audit				
Have referral forms: 🗋 yes	🗖 no	Need more	e referral forms: 🗋 yes 🛛 🗋 no	
Problems mentioned by PP	concerning referral for	orms:		
Problems noted by supervis	or concerning referra	I forms:		
Treatment card audit				
Have treatment card: Dyes	🗖 no	Need more	e treatment cards: 🗋 yes 🗋 no	
Number of patients started	on treatment since pr	evious visit	(number of treatment cards):	
Number of patients started	on treatment since las	st visit for w	hom no treatment card is used	
according to physicians rec	ord and/or memory):			
Problems mentioned by phy	sician concerning tre	atment card	d:	
Problems noted by supervis	or concerning treatm	ent card:		
DOT audit				
DOT done: 🗋 yes 🔲 no		Default ret	rieval done: 🔲 yes 🔲 no	
Number of patients on DOT	:	Number of	patients NOT on DOT:	
Number of default retrieval	actions undertaken: _			
Number of patients for who	n default retrieval act	ion is requi	red:	
Problems mentioned by phy	sician concerning DC	DT:		
Problems noted by supervis	or concerning DOT:			

**Other:** Report problems, positive experiences and/or suggestions by the Private Clinic concerning the forms or the PPM (use back of form if more space is needed):

Supervisor's signature

Used by a PPM field project.

# Appendix 8

Year \_\_\_\_\_

# **REGISTER OF TB SUSPECTS**

Facility / Private Clinic

Date	TB Suspect Number	Name of TB Suspect	A M	ge F	Complete Address	Date Sputum Sent to Lab	Date Results Received	R S Exa 1	esults Sputun Iminati 2	of n ons 3	TB Treatment Card Opened? (record date)	Observations/ Clinician's Diagnosis

Adapted from: Management of Tuberculosis Training for Health Facility Staff WHO/CDS/TB/2003.314a-j

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# DISTRICT TUBERCULOSIS REGISTER

Date of	District TB	Name	Sex	Age	Address	Name Treatment Unit /	Date Start treatment and	Disease			Type of	patient**		
Registration	No.	(in full)	M/F		(in full)	Name and address of treating Private Clinic	regimen*	classification P/PE	New (N)	Relapse (R)	Treatment after failure (F)	Treatment after default (D)	Transfer in (T)	Other (O)

#### \* Enter one of the following regimens:

Cat I New smear-positive patients;

New smear-negative pulmonary TB with extensive parenchymal involvement; Severe concomitant HIV disease or severe forms of extrapulmonary TB

- Cat II Previously treated sputum smear-positive pulmonary TB:
  - relapse
  - treatment after interruption
  - treatment failure

Cat III New smear-negative pulmonary TB (other than in Category I); Less severe forms of extrapulmonary TB

Cat IV Chronic and MDR-TB cases (still sputum-positive after supervised re-treatment)

#### \*\* Enter the appropriate code:

- N: New. A patient who has never had treatment for TB or who took antituberculosis drugs for less than one month.
- R: Relapse. A patient previously treated for TB who has been declared cured or treatment completed, and is diagnosed with bacteriologically positive (smear or culture) tuberculosis.
- F: Treatment after failure. A patient who is started on a re-treatment regimen after having failed previous treatment.
- D: Treatment after default. A patient who returns to treatment with positive bacteriology, following interruption of treatment for two months or more.
- T: Transfer in. A patient who has been transferred from another TB register to continue treatment.
- O: Other. All cases that do not fit the above definitions. This group includes chronic case, a patient who is sputum positive at the end of a re-treatment regimen.

Year \_\_\_\_\_

	Sputum exam	ination: (M. Ir	dicate months	s of treatment	) Upper space	e: Result Lowe	er space: labo	ratory numbe	r			Date	treatment stopp	ed***		Remarks
Local Smear	Pre treatment Ref Smear		Enc Local Smear	d of 2 <sup>nd</sup> m. / 3' Ref Smear	<sup>d</sup> m. Lab	5 <sup>th</sup> m. Smear	End Local Smear	d of 6 <sup>th</sup> m. / 8 <sup>th</sup> Ref Smear		1 Cure	2 Treatment completed	3 Treatment failure	4 Died	5 Default	6 Transfer out	
-																

#### \*\*\* Enter date in the appropriate column:

1: Cure. Patient who is sputum smear-negative in the last month of treatment and at least on one previous occasion.

2: Treatment completed. Patient who has completed treatment but who does not meet the criteria to be classified as a cure or a failure.

3: Treatment failure. Patient who is sputum smear-positive at five months or later during treatment.

4: Died. Patient who dies for any reason during the course of treatment.

5: Default. Patient whose treatment was interrupted for two consecutive months or more.

6: Transfer out. Patient who has been transferred to another recording and reporting unit and for whom the treatment outcome is not known.

# TUBERCULOSIS LABORATORY REGISTER

Year \_\_\_\_\_

Lab	Date	Name	Sex	Age	Name Treatment Unit /	Address -	Reason for	examination	Res	sults of specir	nen	Signature	Remarks
serial No.			M/F		Name and address of treating Private Clinic	new patients	diagnosis*	follow up*	1	2	3		

\*These are diagnosed New or Relapsed cases

\*\* These are patients on chemotherapy

QUARTERLY REPORT ON NEW CASES AND RELAPSES OF TUBERCULOSIS	Patients registered during uarter of
Name of District Tuberculosis Coordinator Date of completion of this form Signature	Name of district     District No.

		Р	ULMON. SMI	ARY T EAR P			SIS		NEO	MEAR GATIV		PUL	EXTRA MONA	RY	T	OTAL (:	5)
Block 1			ASES (1) Females		1	RELA M	APSES F	(1)	М	(3) F			RCUL (4) I		Males	Females	Total
			GROUP (	VEAD	c)												
		-14	15-		-	-34	35	-44	45-	-54	5.	5-64	≥	55	Т	OTAL (	5)
D1 1 0	М	F	М	F	М	F	М	F	М	F	М	F	М	F	Males	Females	Total
Block 2																	

## Explanations on how to fill the form:

Appendix 11

J. J	
umber	- identifiction number of the district
1 <sup>st</sup> quarter	- January, February, March
2 <sup>nd</sup> quarter	- April, May, June
3 <sup>rd</sup> quarter	- July, August, September
4 <sup>th</sup> quarter	- October, November, December
	2 <sup>nd</sup> quarter 3 <sup>rd</sup> quarter

Block 1: NEW CASES AND RELAPSES OF TUBERCULOSIS registered during ......quarter of (year)...... Fill in the quarter and the year.

Column (1): SMEAR POSITIVE NEW CASES	- patients with pulmonary tuberculosis, sputum-smear positive, who have never received anti-tuberculosis treatment.
Column (2): SMEAR POSITIVE RELAPSES	- patients with pulmonary tuberculosis, sputum-smear positive, who have been declared cured but have now got
	the disease again.
Column (3): SMEAR NEGATIVE CASES	- patients with pulmonary tuberculosis, with a negative sputum for AFB, in whom the diagnosis of TB was made
	by means other than sputum microscopy.
Column (4): EXTRA PULMONARY TB	- patients with tuberculosis of organs other than the lungs.
Column (5): TOTAL Males	Add all male patients in columns 1+2+3+4
Females	Add all female patients in columns 1+2+3+4
Total	Add all patients (males + females) in columns 1+2+3+4

#### Block 2: SMEAR POSITIVE NEW CASES; from Column (1) above

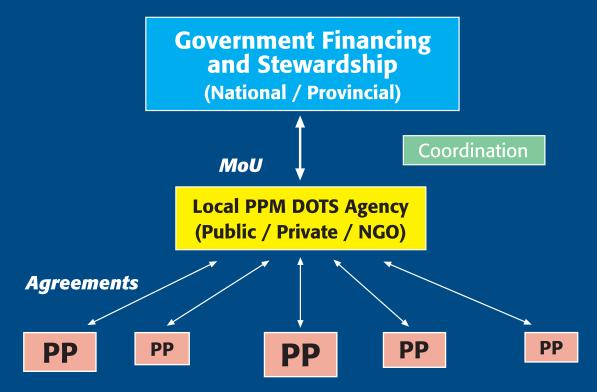
In this block enter the patients (already recorded in Block 1, Column 1) according to sex and age group. If the exact age of a patient is unknown at the time of his/her registration it should be estimated to the nearest 5 years (e.g. 15, 20, 25, etc.).

## Appendix 12 QUARTERLY REPORT ON THE RESULTS OF TREATMENT OF PULMONARY TUBERCULOSIS PATIENTS REGISTERED 12-15 MONTHS EARLIER

Name of District:District No.:					Patients registered during		uring	Date of completion of this form			
Name of District Tuberculosis Coordinator:							quarter of				
Total No. of pulmonary patients reported during the above quarter		ng	Regimen	(1) Cure	(2) Treatment completed	(3) Treatment failure	(4) t Died	(5) Default	(6) Transfer Out	Total number evaluated (Sum of columns 1 to 6)	
New cases			1. New cases								
			1.1 Smear positive								
			1.2 Smear	$\geq$							
N	New cas	es									
М	F	T*	2. Retreatment								
			2.1 Relapses								
			2.2 Others								
			2.3 Total (2.1+2.2)								

\* Of those, \_\_\_\_\_ (number) were excluded from evaluation of chemotherapy for the following reasons: \_\_\_\_\_

# A generic PPM structure emerging from PPM DOTS field projects



The national government formulates a PPM policy in consultation with the stakeholders. A co-ordination mechanism helps to bring the public and the private sectors together, agree on implementation schemes and maintain dialogue. A local 'franchisee' DOTS agency – public, private or voluntary – implements DOTS through a network of willing health care providers in an area. PP indicates 'private provider'.

## For further information, please contact

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