Ministry of Health
Department of Health
National Tuberculosis Programme

National Monitoring and Evaluation Plan for Tuberculosis Control

2011-2015
MYANMAR

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List of Abbreviations

Abbreviation	Meaning
3DF	Three Diseases Fund
AIDS	Acquired Immunodeficiency Syndrome
AHRN	Asian Harm Reduction Network
ARI	Annual Risk of Infection
BHS	Basic Health Staff
DQA	Data Quality Audit
EQA-LQAS	External Quality Assurance- Lot Quality Assurance System
FIND	Foundation for Innovative New Diagnostics
GFATM	Global Fund to Fight AIDS, TB and Malaria
GDF	Global Drug Facility
HRD	Human Resource Development
HA	Health Assistant
HIV	Human Immuno-deficiency Virus
HMIS	Health Management Information System
IOM	International Organization for Migration
INGOs	International Non Governmental Organizations
IUATLD	International Union against TB and Lung Diseases (UNION)
JATA	Japan Anti-TB Association
MHAA	Myanmar Health Assistant Association
MMA PPM DOTS	Myanmar Medical Association, Public Private Mix DOTS
MMCWA	Myanmar Maternal and Child Welfare Association
MRCS	Myanmar Red Cross Society
MWAF	Myanmar Women Affairs Association
MIDCP-JICA	Major Infectious Diseases Control Project - Japan International Cooperation Agency
MDGs	Millennium Development Goals
MDR TB	Multi-drug resistant Tuberculosis
M- CCM	Myanmar Country Coordinating Mechanism
MSF	Medecins Sans Frontieres
NTP	National Tuberculosis Programme
NGOs	Non Governmental Organizations
NHL	National Health Laboratory
PSI	Population Services International
PR	Principal Recipient
RHCs	Rural Health Centers
SR	Sub-recipient
STLS	Senior TB Laboratory Supervisor
TB	Tuberculosis
TMO	Township Medical Officer
TSG TB	Technical Strategic Group (Tuberculosis)
WHO	World Health Organization

National Monitoring and Evaluation Plan for tuberculosis control (2011-2015)

1. Background

Monitoring and evaluation provides the means to assess coverage, effectiveness, and quality of services delivered and promotes a culture of continual quality improvement within programmes.

Through effective monitoring and evaluation, programme results at all levels (input, process, output, outcome and impact) can be measured to provide the basis for accountability and decision making at both programme and policy level. The monitoring and evaluation system also ensures accountability for the resources allocated for activities at the different levels of the programme.

An analysis of input, process, output and outcome indicators is necessary to explain successes and gaps in programme implementation. One of the critical steps in designing and carrying out monitoring and evaluation of TB programme is the selection of appropriate quantitative and qualitative indicators. Establishing standard indicators and recording, reporting templates is therefore essential for streamlining and simplifying monitoring and evaluation processes.

The National TB Programme (NTP) is responsible for monitoring and evaluation of TB control activities implementing all over the country. The national TB reporting system is unified, in-line with the global reporting system, and is adhered to by all partners involved. All the data relevant for monitoring the performance of the TB programme are routinely reported, on a quarterly and annual basis.

2. TB monitoring and evaluation (M&E)

Monitoring and Evaluation (M&E) is an essential tool in the management process. While the terms “Monitoring” and “Evaluation” are often used together, there are important differences as well as similarities in between.

2.1. “**Monitoring”** is the observation of program performance to ascertain whether activities are accomplished according to guidelines and plans. Monitoring can be done by conducting to supervision, direct contact with the health staff at the services delivery units or by doing desk monitoring, examine the periodic reports at the office. It is called indirect supervision.

2.2. “**Evaluation**” is the overall assessment of technical and financial performance against the program plan whether the NTP met its objectives or not. The evaluation data have to be compared with the standard indicators of the NTP quarterly, bi-annually, annually, mid-term or end of the project.

2.3. Objectives M&E plan for TB control

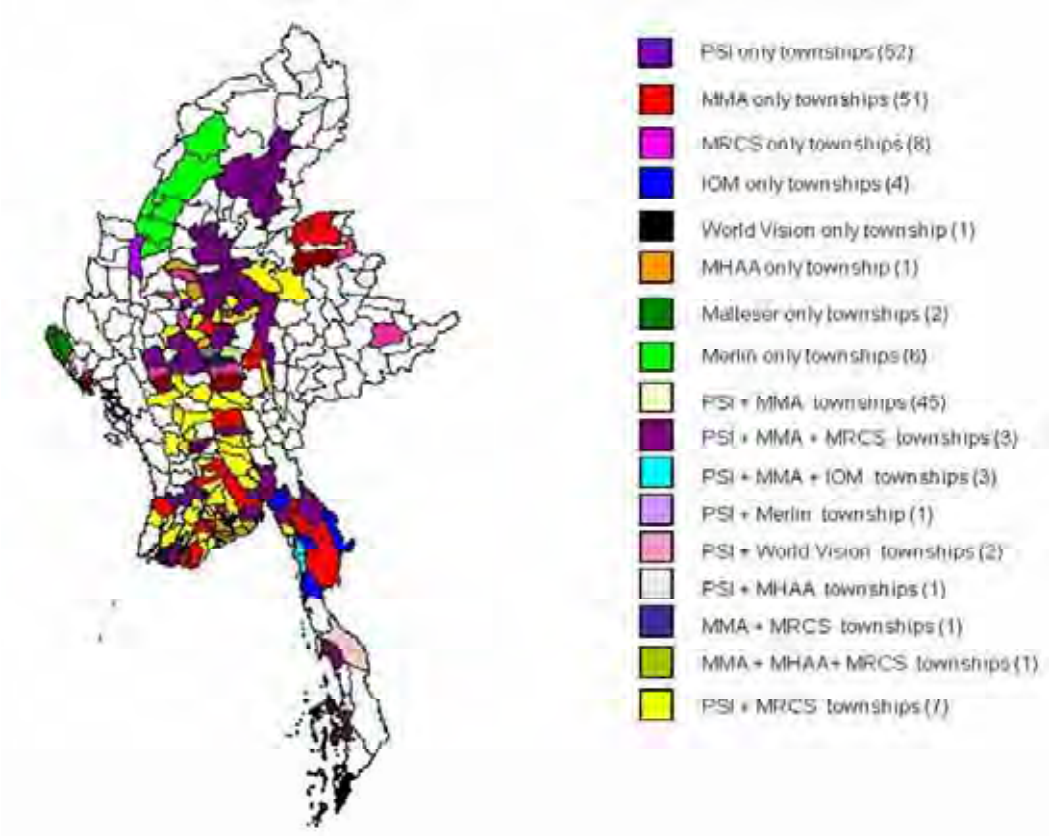
- **To develop and constitute a reference document to monitor the implementation of NTP in Myanmar with the support of any funding sources including 3DF, GF, JICA etc.**
- **To prepare for the GF round 9 grant negotiation process through development of a M&E plan responding to the Condition Precedents required by the GF.**
- **To prepare for the possible consolidation of grants in future.**

2.4. Rationale of M&E plan for TB control

In Myanmar, currently TB control activities have being implemented by various stakeholders. National TB Programme (NTP) under the Department of Health is responsible for the National response on TB and providing consistent guidance and stewardship for the implementing partners in different service delivery areas.

The implementing partners (IPs) involving in TB control are MWAF, MMCWA, MMA, MHAA, MRCS, 3DF, JICA, UNION, JATA, FIND, IOM, Merlin, Pact, PSI, Malteser, AZG, AHRN etc. If there is no systematic monitoring system, the areas of implementation and the approaches/activities sometimes overlap. As a result of multiplicity of IPs, NTP together with WHO, 2 principle recipients (PRs) of GF, round 9 grant and all IPs plan for the harmonization of both the strategy and resources for monitoring and evaluation process of TB control in Myanmar.

Figure 1. Map of Myanmar showing the implementation sites of partners



MWAF, MMCWA are implementing in all townships

As of 2010, there are 3DF grants is a main funding source for TB control in Myanmar and having many implementing partners involving in TB control activities through out the country, targeting to the different groups. IPs utilize various approaches and have some of their own indicators, targets, data collection and quality control systems.

NTP is practicing 3-1 principle: one technical strategic group (TSG) for TB, one 5- Year National TB Strategic Plan developed with all stakeholders and having one standardized and common M&E system. Therefore, this M&E plan is a national level effort to involve all TB control stakeholders especially GF supported ones to be able to work together under the NTP guidelines.

2.5. Main principles of the M&E plan

2.5.1. Alignment of the M&E plan and other health plans

NTP, Myanmar reviewed the previous national strategic plan (2006-2010) and developed the 5-year national strategic plan (NSP) (2011-2015) together with IPs and WHO to be in line with Stop TB strategy and National Health Plan.

2.5.2. Harmonization and integration of M&E activities

Harmonization could be addressed through regular meetings and activities conducted between NTP and other IPs. NTP will monitor all TB control activities in an aligned and harmonized manner. PRs and fund managers will monitor and evaluate their granted activities. Regular joint technical supportive supervisory visits are needed to be performed by NTP, WHO, 3DF, GF and sub recipients (SRs). All the routine supervision should be conducted according to the plan. For areas needing special attention, additional supervision and implementing visits are planned and identified to ensure the intended results and timely action against the problems.

Performance based grants implementation is very important and all IPs needs to monitor and evaluate their activities using the same indicators. NTP has to monitor and evaluate as a national response and its achievement. Moreover, M&E subgroup under TSG (TB) is to be established to ensure M&E capacity building among stakeholders to be able to implement all M&E activities.

Data Quality Audit (DQA) will complement on-site data verification during supervisory visits using DQA tools. NTP central will closely work with WHO, State/Regional TB Officers and responsible persons from district/township level and all IPs to improve quality of M&E and data management according to NTP guideline and M&E plan.

2.5.3. Process to develop the M&E plan for TB control

This M&E plan for TB control was developed through several meetings in TSG (TB) with the technical support of WHO. The MESST workshop was conducted in April, 2010 and M&E plan was revised according to the suggestions. It is expected that this will cover all aspects related to TB control and will promote harmonized and aligned M&E activities for all IPs and could be used as reference at the time of the GF supported activities implementation. This plan will be share with all IPs and will review and revise in yearly basis.

2.6. Current TB situation

Myanmar is one of the 22 TB high burden countries that account for 80% of all new TB cases arising each year, and the 27 countries that account for 85% of the global MDR-TB burden. Moreover, and due to a high and growing HIV prevalence, the country is included in the 41 global priority countries for TB/HIV.

The exact TB burden in Myanmar is unknown. The current estimates are based on the latest TB prevalence study conducted in 2009-2010. These data suggested that in 2009, the TB incidence rate was 404/100,000 populations, the prevalence of smear positive TB was 172/100,000 population and that the estimated incidence rate of new smear-positive cases was 105/100,000 populations. However, a TB prevalence survey carried out in Yangon Region in 2006 reported as smear positive TB incidence was 170/100,000 population. The new estimates suggested to revise the current national five-year strategic plan and intensify the current case finding activities using improved diagnostic methods and algorithm.

Over the last few years there has been an rapid increase in the number of notified TB cases. In 2010, 137,403 TB cases were notified (all new and previously treated cases) corresponding to a case notification rate of 279 cases per 100,000 population. In the same year,

42,318 new smear-positive cases or 86 cases per 100,000 population were reported. The proportion of smear-positive cases out of all pulmonary cases was approximately 46% and the proportion of extra-pulmonary cases out of all TB cases is just over 20.4%. Out of all new and re-treatment cases in 2010, 4.7% were re-treatment cases. Two-thirds of all TB cases occur in men, and the most affected age group is between 25-44 years which represents the most active productive socio-economic age group.

The second nationwide drug resistant TB survey carried out in 2007-2008 showed that the proportion of MDR-TB among new cases was 4.2% and among previously treated cases 10.0%, lower than the survey conducted in 2002-2003. These data indicate that while MDR-TB transmission is still ongoing, the emergence of drug resistant cases has leveled off, probably as a result of Myanmar's successful DOTS programme. During 2007 - 2008, second-line anti-TB drug susceptibility testing on isolates from 86 category II treatment failures showed that 85 had MDR-TB and one had XDR-TB.

Myanmar is one of the countries hardest hit by the HIV epidemic in Asia. The reported HIV prevalence among adults is 0.61% but much higher rates have been reported in risk groups such among commercial sex workers (11.3%) and intravenous drug users (34%). In 2009, it was estimated that 238,000 people in Myanmar were living with HIV/AIDS. Only 28% of PLHIV eligible for ART receive ARVs. The HIV prevalence among TB patients was 10.4% in 2010 for 20 sentinel sites. It is estimated that 60-80% of AIDS patients have TB and that TB is the leading opportunistic infection among people living with AIDS.

2.7. Status of TB control in Myanmar

The NTP and implementing partners have ensured high quality basic TB control services in 314 out of 325 townships (95% administrative DOTS coverage) since 2003. Case detection rates have continued to increase and the WHO case detection rate target of 70% has been surpassed since 2003 (however, the data should be interpreted with caution as mentioned above). A national TB prevalence survey was completed in April 2010 and the results ensure a better understanding on TB situation in Myanmar. Treatment success targets of 85% are being achieved in most townships. In 2009, the country-wide treatment success rate average was 85.1% with a 5.6% death rate, 2.8% failure rate, 4.7% default rate and 1.9% transferred out rate. Default rates are falling, particularly in the Yangon Region, due to intensified and innovative case management measures being taken, such as quarterly cohort peer reviews and treatment interruption prevention and tracing activities including initial home visits at the start of treatment. In 2009, the overall treatment success rate among re-treatment cases was 73.5%. For relapses the treatment success rate was 77%, for failure cases 62% and for patients treated after default the success rate was 70%.

Despite a rapid expansion of sound TB control with accompanying increases in case notification, and donor dependency on anti-TB drugs, reliable availability of quality-assured fixed-dose combination first-line anti-TB drugs has been achieved.

The quality of sputum smear microscopy is adequate and a national quality assurance mechanism is functioning. The national TB reference laboratory has been established and upgraded to perform culture and drug susceptibility testing to first-line anti-TB drugs and is linked to the supranational TB reference laboratory in Bangkok, Thailand, for external quality control. With the support of FIND, the National TB Reference Laboratory (NTRL) and Upper Myanmar TB Reference Laboratory, Mandalay were upgraded to Bio-safety Level -3 laboratories in 2010.

In collaboration with a number of national and international NGOs, PPM activities are carried out in specialist and TB hospitals as well as by private practitioners. Some of the private laboratories using by GPs have also been accredited under the PPM scheme. By end of 2010, 1,500 private practitioners out of 26,000 are collaborating with the NTP in 153 townships (PSI 183 townships and MMA 70 townships). The PPM DOTS contributed 25% of total new cases notified in the year 2010.

DOTS Plus pilot project (MDR-TB management) has been introduced at two sites in Yangon and Mandalay, following the approval by the Green Light Committee for two years duration. In Yangon the pilot project is jointly implemented with MSF, Holland. UNITAID has agreed to cover the costs of second-line anti-TB drugs until 2011. National guidelines for the programmatic management of MDR-TB have been finalized. By the end of June 2011, a total of 275 cases were registered for treatment.

The scale-up of TB/HIV collaborative activities are limited by the availability of ARVs in the country as well as the level of decentralization of HIV services. While TB control services are included in the primary health care network and provided at rural health centers and station hospitals, as well as in township hospitals, HIV services are currently limited to hospitals at state/Region level as well to STD clinics at district level. ART delivery is restricted to the majority of hospitals at state/Region level and district level except for activities geared towards prevention of mother to child transmission of HIV. These services are provided at lower levels of the health system at township hospitals. TB/HIV collaborative activities have begun, in collaboration with NGOs. However, only 11 townships (10 townships are implementing with UNION) are today offering voluntary counseling and testing. In 2010, NAP supported to expand Voluntary HIV Counseling and Testing center in 10 big cities. From 2005 to 2007, the proportion of TB patients screened for HIV has been low and stable with only 2.1% of TB patients tested for HIV. In 2008, 4,292 TB patients were tested for HIV and 997 were found to be HIV positive, of which 650 were started on ART. In 2011, UNIION expanded to 3 more sites as Integrated HIV Care (IHC) Plus project.

3. Goal and Objectives of the National Strategic Plan (2011-2015) for TB control in Myanmar

3.1 Goal

To reduce dramatically the TB morbidity, mortality and transmission, in line with the MDGs and the Stop TB Partnership targets, until it no longer a poses a public health threat in Myanmar.

3.2 Objectives

The objectives of NTP Myanmar are:

- To reach the interim targets of halving TB deaths and prevalence by 2015 from the 1990 situation (Millennium Development Goal 6, Target 6.c, Indicator, 6.9)
- To reach and there after sustain the targets-achieving at least 70% case detection and successfully treat at least 85% of detected TB cases under DOTS (Millennium Development Goal 6, Target 6.c, Indicator 6.10)

Targets

In line with the MDGs as well as the targets set by the Stop TB Partnership and the World Health Assembly, the targets of the NTP of Myanmar are:

- To halt and begin to reverse the incidence of TB by 2015
- To reduce the TB prevalence and death rates by 50% relative to 1990 levels by 2015 (MDG Goal 6, target 8, Indicator 23)
- To detect at least 70% of new sputum-smear positive TB patients and thereafter achieve universal case detection (MDG Goal 6, target 8, Indicator 24)
- To achieve and then surpass the 85% treatment success rate of new sputum smear positive TB patients under DOTS (MDG Goal 6, target 8, Indicator 24)
- To achieve and then surpass a 50% treatment success rate among MDR-TB cases

3.3 Strategies

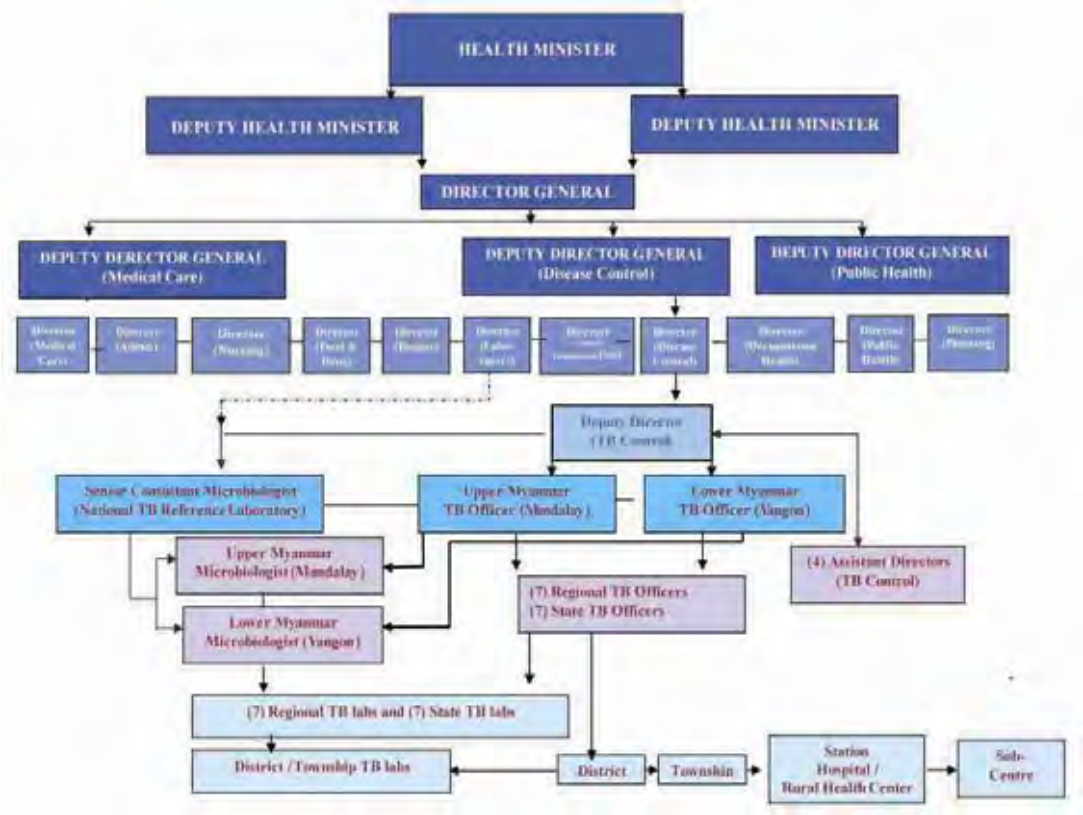
In 2007, the Government of Myanmar adopted the Stop TB Strategy. The following six strategies and implementation approaches form the basis for the national response to tuberculosis in the country:

- Pursuing high-quality DOTS expansion and enhancement
- Addressing TB/HIV, MDR-TB and other challenges
- Contributing to health system strengthening
- Engaging all care providers
- Empowering people with TB, and communities
- Enabling and promoting research

4. Structure and organization of the National TB Control Programme

The NTP is led by a Deputy Director (Programme Manager) under the Director-General of the Department of Health, Deputy Director-General of Disease Control and Director of Disease Control of DOH. NTP operates 14 state and Regional TB centers headed by state/Regional TB officers (out of 17 operational states/Regions). Under the 13 state and Regional TB centres, there are 47 TB teams in the 66 districts and 54 TB teams in 264 townships. The remaining townships have either a trained TB coordinator from the general health services or one dedicated TB staff. At the RHC level, TB control activities are implemented by BHS.

Figure 2. ORGANIZATION SET-UP OF NATIONAL TUBERCULOSIS PROGRAMME OF MYANMAR



Township hospitals function as DOTS diagnostic and treatment units. TB registers are maintained at this level. Township laboratories or TB laboratories at the township level perform sputum microscopy in 310 townships. Sputum microscopy is also conducted in all general hospitals at the state/Regional level and all specialist hospitals in Yangon and Mandalay. The National TB Reference Laboratory (NTRL) was established in 2001 and is headed by one senior consultant microbiologist and assisted by one microbiologist each assigned at Upper and Lower Myanmar TB laboratories.

5. Indicators and targets

Table 1. shows the impact and outcome targets as stated in the five-year national strategic plan for TB control 2011-2015.

Table 1. TB impact and outcome targets with baseline value and targets set for 2015

Impact indicators	Baseline			2015 Target
	Value	Year	Source	
Reduced TB prevalence per 100,000 population / year (all cases)	922	1990	WHO, Global TB report, 2010	461
Reduced TB mortality (all forms of TB) per 100,000 population / year	133	1990	WHO, Global TB report, 2010	66
Reduced TB incidence per 100,000 population / year	404	1990	WHO global TB report, 2010	To halt and reverse
Prevalence of MDR-TB among new smear positive TB patients	4.2%	2007	National drug resistant TB survey, 2007-08	<4.2%

Impact indicators	Baseline			2015 Target
	Value	Year	Source	
Reduced TB prevalence per 100,000 population / year	419	1990	WHO, Global TB report, 2005	210
Reduced TB mortality (all forms of TB) per 100,000 population / year	50	1990	WHO, Global TB report, 2005	25
Reduced TB incidence per 100,000 population / year	76	2006	WHO global TB report, 2008	<75
Prevalence of MDR-TB among new smear positive TB patients	4.2%	2007	National drug resistant TB survey, 2007-08	<4.2%

Outcome indicators	Baseline			2015 target
	Value	Year	Source	
Case detection rate	95%	2009	NTP, Myanmar	= 95%
Case notification rate (all forms) / 100,000 population / year	220	2009	NTP, Myanmar	< 220
Treatment success rate	85%	2009	NTP, Myanmar	= 85%
Treatment success rate among MDR-TB cases	N/A	N/A	N/A	= 50%

Table 2. shows the programmatic indicators and targets set for 2015, by the key strategic components, as stated in the five-year national strategic plan for TB control 2011-2015.

Table 2. Programmatic indicators for activities to be conducted 2011-2015 by the NTP and implementing partners

Stop TB Strategy Component	Indicator	Baseline	Year	Target (2015)
Pursue high-quality DOTS expansion and enhancement				
Ensure early case detection, and diagnosis through quality-assured bacteriology	Number of sputum collection centers	29	2009	331
	Number of microscopy laboratories monitored under the external quality control system (existing 415 + expansion 420 + 12 IOM)	50	2009	847
	Number of laboratories with fluorescence microscopes	4	2009	109
	Number of culture laboratories available	2	2009	17
	Number of laboratories conducting quality-assured DST to second-line drugs	0	2009	1
	Number of laboratories performing molecular line probe assays for the rapid detection of MDR-TB	2	2010	3
	Number of new TB patients (all forms) registered for treatment (Baseline not included)	134023	2009	796989

Stop TB Strategy Component	Indicator	Baseline	Year	Target (2015)
Provide standardized treatment with supervision, and patient support	Number of community health worker trained and actively involved in TB case finding and/or treatment activities at community level	NA	2009	13500
	Number of TB patients/ families receiving community support/ incentives	7696	2008	52790
Ensure effective drug supply and management	Number of treatment units reported no stock out of first line anti-TB drugs (adult and child formulations) at the last day of each quarter (Including PPM)	336	2009	361
Provide efficient programme management including monitoring and evaluation	Number of townships supervised and feed back provided by NTP during each quarter	175	2009	325
	Proportion of new smear positive TB patients successfully treated among all new smear positive TB patients detected	85%	2009	>85%
Ensure availability of trained and motivated human resources	Number of basic health staff trained on selected modules of management of TB for health facility staff	3059	2008	18059
	Number of laboratory technicians trained	618	2008	1218
	Number of community member trained	NA	2009	40110
	Number of private practitioners trained	1500	2009	8250
Address TB/HIV, MDR-TB, and the needs of poor and vulnerable populations	Number of TB patients tested for HIV (Base line not included)	4174	2009	360370
Scale-up collaborative TB/HIV activities	Diagnosed TB/HIV patients received CPT in areas where comprehensive TB/HIV services are in place (%)	97%	2009	> 97%
	Diagnosed TB/HIV patients eligible for ART received ART in area's where comprehensive TB/HIV services are in place (%)	65%	2009	>65%
Scale-up prevention and management of multi-drug resistant TB	Number of laboratory confirmed MDR-TB patients enrolled in the MDR-TB treatment programme (DOTS Plus)	64	2009	4000
	Number of TB/HIV, MDR-TB management units implementing infection control measures (Base line not included)	6	2009	41
Ensure treatment of tuberculosis in children	Number of <15 years childhood TB patients diagnosed and registered for treatment	27692	2007	164388

Stop TB Strategy Component	Indicator	Baseline	Year	Target (2015)
Address the needs of poor and vulnerable populations	National plan developed for scaling-up TB control interventions to the poor and vulnerable populations	0	2009	1
	Number of new smear positive TB patients registered in targeted border townships (Baseline not included)	243	2007	4105
Strengthen infection control in health services, other congregate settings and households	National Infection Control policy & plan for health facilities should have developed and implemented. (Cross cutting)	0	2010	1
Contribute to health system strengthening based on primary health care	TB control planning and budgeting integrated with national sector-wide planning frameworks	1	2009	1
Engage all care providers				
Involve all public, voluntary, corporate and private providers through Public-Private Mix approaches and promote the use of the International Standards for Tuberculosis Care	Number of private practitioner involved in DOTS	1500	2009	8250
	No. of TB patients (all type) registered for treatment in Public-Private Mix DOTS clinics (Scheme 3)	17123	2009	85615
Empower people with TB, and communities through partnership				
Pursue advocacy, communication and social mobilization	Population with correct knowledge about TB (Mode of transmission, symptoms, treatment and curability) (percentage). Based on KAP survey	To be available by end of 2010.	2010	Target set according to baseline to be available.
	Number of people who correctly identified "cough of 2 weeks or longer" as symptom of TB out of all surveyed	To be available by end of 2010.	2010	Target set according to baseline to be available.
Foster community participation in TB care, prevention and health promotion and promote use of the Patients' Charter for Tuberculosis Care	Proportion of new smear positive TB patients successfully treated among all new smear positive patients detected by community health workers	NA	2008	85%
Enable and promote research				
Conduct programme-based operational research	Operational research studies completed (as indicated in the national strategic plan) and results disseminated through national/global TB monitoring and evaluation systems. (Baseline not included)	2	2015	6

Overall strengths of the National M and E plan

One of the major strengths of the national M and E plan lies in the fact that all the indicators listed are clearly linked to the strategic objectives, and technically sound data sources have been established. There are indicators measuring disease trends in terms of TB prevalence and mortality and internationally recognized survey methodologies have been applied to establish the baselines and will be used to measure trends during the 5-year period. The baselines for the impact, outcome and most of the output indicators are available and targets have been set, at least for 2015. The impact and outcome indicators and most of the output indicators have operational definitions in line with international standards.

A system of quarterly reporting using the standard reporting formats of the national TB programme, which in turn are entirely based on the internationally recommended reporting formats for TB programmes globally, is already in place and using by all partners. Community base monitoring tools have been developed for current projects and include reporting formats for townships. These data is afterwards consolidated at state and Region level and then at central level. This system will be also followed to report on programme performance under the GF grant.

There are systems in place to ensure adherence to the treatment regimens administered under the programme. Client satisfaction is measured through exit interviews and interviews with patients in the field by both the NTP and partners serving as sub-recipients. Drug resistance associated with treatments administered will be measured through periodic drug resistance surveys and data should be disaggregated at higher levels.

Aggregate data are accessible though the reports of the national programme. National data are disseminated annually by the NTP and partners to health managers at district, state/Regional and national levels and to both national and international partners. The data is analyzed at the central level to inform and guide policies and strategies for TB control in the country.

Weaknesses

A few indicators, mainly relating to DR/MDR-TB treatment, community based activities are defined on the limited experiences. Some of the indicators are awaiting to have the final results of some surveys to be able to set the baselines and targets. While the quality of data is addressed by all stakeholders to some extent, it is recognized that this needs to be strengthened. There are no indicators included presently to measure behavior change. This is an important area given the new global directions towards ensuring early and complete case detection for all TB cases.

Planned measures to strengthen the national M and E plan

Operational definitions for all of the major indicators to be reported on and baseline values and targets for the few indicators where these are not presently available, will be included later. Some baseline figures and targets will be fixed after the surveys results available.
It is planned that WHO will recruit additional staff at state/Regional and central levels to strengthen the M&E capacity of NTP and the MMA. It is also proposed that the programme will be supported to develop an operational research agenda for research studies addressing behavior change in the context of early and higher case detection and improved outcomes for TB. As culture and drug susceptibility capacity is expanded, drug susceptibility testing will be extended to all patients to be treated with retreatment regimen.

6. National Monitoring and evaluation framework

6.1 Data Management Flow

6.1.1 Data recording and reporting
6.1.2 Data forwarding
6.1.3 Data compilation
6.1.4 Data flow
6.1.5 Data quality (Data quality Audit – DQA)
6.1.6 Data analysis, dissemination and utilization

6.2 Supervision

6.2.1 Supervision, monitoring and systems for feedback
6.2.2 Internal reviews and coordination with implementing partners
6.2.3 Joint monitoring missions / Biennial external programme reviews

6.3 Concurrent Monitoring Systems

6.3.1 Drug management monitoring / supervision
6.3.2 Laboratory quality assurance system
6.3.3 Monitoring of the quality of the training

6.4. Impact measurements

6.1 Data Management flow

6.1.1. Data recording and reporting

The National TB Control Programme utilizes the following standardized recording and reporting forms, booklets, registers in basic DOTS implementation all over the country:

1. Tuberculosis Treatment Card – TB 01
2. Patient Treatment Book – TB 02
3. Township TB Register – TB 03
4. Township TB Laboratory Register – TB 04
5. Request for Sputum Examination Form TB – 05
6. Quarterly Report on TB Case Registration TB – 07
7. Quarterly report on the results of TB patients registered 12-15 months earlier TB - 08
8. Quarterly Report on Drug Stock
9. Quarterly Report on laboratory supplies
10. Inventory and Order Form for Drugs and Supplies
11. Quarterly Assessment of TB Control Activities

12. Tuberculosis Referral / Transfer Form

13. Referral Form for private practitioners

14. Tuberculosis Suspect Register

15. Instruction form for health centres for DOTS Provision / Supervision

16. Township Tuberculosis Patient Transfer In / Out Register

17. Township TB Sub-register for Station Hospitals and RHCs

However, the forms, registers and report which were developed in uses for different strategies are also listed in page 40 and attached.

6.1.2 Data forwarding

The Township Health Department is the most peripheral reporting unit submitting data on a quarterly basis, to State / Region levels and thence to the Central level of the NTP. INGOs and NGOs will report to the Township Health Department. However, they can compile State and National level reports.

There are 14 State /Regional TB Centers and 101 TB teams at District and Townships level responsible for reporting. In the remaining townships, TMOs usually assign one senior health staff to work under supervision as TB coordinators responsible for township TB control activities and reporting. Township TB data are compiled and recorded in the township registers.

All Township Health Departments send quarterly reports to the District TB teams as well as to the State / Region TB Offices and Central NTP. Quarterly reporting at township level to the State / Regional level is linked with the quarterly collection of drugs and supplies from the State / Regional TB Offices.

The TB Offices at State / Region level compile the township reports and forward these as state/Region quarterly reports to the Central level of the NTP.

Implementing partners report on a quarterly basis directly to Central NTP, and provide copies of township TB quarterly reports to the concerned Township Medical Officers and State/Regional TB officers in which they are functioning. Public-Public and Public-Private Mix Hospitals also report to Central NTP and State/Regional TB officer every quarter. Data from the implementing partners and Public-Public and Public-Private Mix Hospitals are compiled only at Central NTP to prevent double reporting.

Reports from activities such as the TB/HIV collaborative activities and MDR- TB management presently limited to a few project sites are sent directly to Central level for compilation.

6.1.3 Data compilation

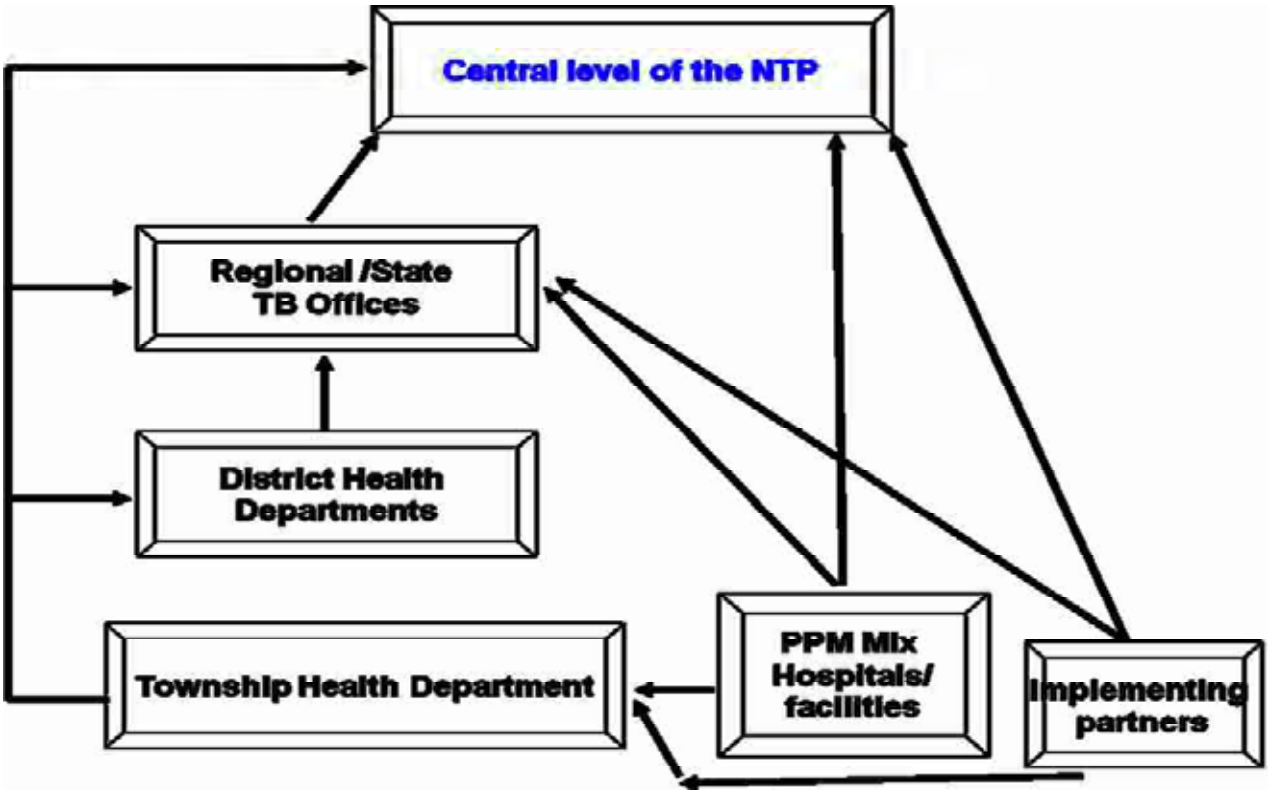
Data entry and compilation is carried out manually at township and district level.

A computerized data management system is in place at State / Region level. The District Health Information Software (DHIS) is used for data compilation and analysis. Data quality is

checked first at the township level and thereafter at the state and Regional levels and then again at central level. The practice of parallel data entry as a back up, in excel formats for all townships, is being continued. All reports on case notifications and treatment outcomes are available with the programme from 1999.

Data Management Training has been conducted for TB Officers and Statisticians in 2008 at Central and State / Regional Offices. 16 Data management assistants are planned to be recruited under GF support for data compilation, data screening and data analysis at State / Region and Central NTP. Data management capacity at district level will be strengthened in future.

6.1.4 Data flow using quarterly report



6.1.5 Data quality

All reports are to be obtained from the townships one week after the end of the quarter. Regional and State will compile the reports and submit to the National level before end of 6 weeks. At the Central level the consolidated report is to be ready by the end of the next Quarter.

Data records and reports are received and recorded from all townships. Data is verified at the state and Region levels, both manually and through in-built checks in the DHIS software. Data entry is also checked on-site during supervisory visits.

The reports are thoroughly checked at State / Regional and thereafter at central level, necessary clarifications sought and corrections effected as required, to ensure accuracy, completeness and timeliness of the reports from township levels. There are clearly defined processes for reconciling discrepancies in the NTP manual

Confidentiality: While aggregate on TB/HIV is available, individual patients' data is considered confidential

6.1.6 Data analysis, dissemination and utilization

Desk monitoring of case finding, sputum conversion and treatment outcomes reported through the quarterly reports is done at all levels. While some level of data analysis is done quarterly at all levels, data from the programme are presently only analyzed in a detailed way at Central NTP each quarter, every six months and annually. The central level of the NTP also analyses the outcomes from special projects/activities.

Translating data into information for action at central, intermediate and peripheral levels is recognized as a key element of effective monitoring and evaluation. In order to promote this process at the district and township level, the programme together with WHO ran two training programme on "managing information for action", training on basic data validation, analysis and formulation of corrective or progressive interventions to improve programme implementation at district and township level for medical officers at these levels during 2008 and 2009.

The implementing partners have their own data analysis systems and share their data Central NTP.

Annual reports are published and disseminated by the NTP to all stakeholders; the different implementing partners also publish and disseminate their annual reports.

Strengths of Data Management

The two PRs, NTP and sub-recipients have previous experience in utilizing grants from other donors including Global Fund, and in reporting to international partners (for existing similar grants) and have management units with designated staff responsible for reviewing the quality of data submitted by sub-recipients. The two PRs have already assessed all sub-recipients in the areas of finance, M&E, programme management, and procurement.

A major strength for data management is the full coverage by the NTP in terms of assigned data reporting units and systems throughout the country. The PRs have also an existing network of M&E personnel at central level who will travel to region and townships. All sub-recipients also have identified reporting units and systems for reporting from areas in which TB control activities are implemented. Standard recording and reporting systems are in place and all relevant staff including from partners serving as sub-recipients have received training on the data management processes and tools. There are good systems in place for reporting on TB suspects, cases notified and outcomes from treatment, drugs and commodities, and functioning service delivery points. The in-country drug management and storage systems have been consistently monitored by the Global Drug Facility and partners and are considered to be of a very high quality The district health information system (DHIS) used by NTP is working well from state and Region level upwards. Data is entered this system from the state and Region level upwards and back-up data-entry and data-processing is in place.

The two PRs and sub-recipients have management units (established for existing similar but smaller grants) with designated staff responsible for reviewing the quality of data submitted by sub-recipients and have developed programmatic and financial reporting tools as well as internal quality control measures. Data inconsistencies are systematically reviewed and resolved

through established processes. Feedback is provided to all reporting units/entities on the quality of reporting in terms of completeness, timeliness and accuracy, particularly to poorly performing areas/townships. The PRs and sub-recipients can demonstrate that site visits for data verification have taken place through supervisory reports and minutes of review meetings held at township, state and Regional levels, pre/post tests and evaluation of contents and training methodology for assessing quality of training.

A written policy exists that clearly states for how long source documents need to be retained (e.g., records, registers, training attendance sheets, summary reports) for both PRs, and most of the sub-recipients.

Weaknesses of Data Management

Delayed submission of quarterly reports is one of the major weaknesses identified. Delays in reporting are attributable to inadequate numbers of staff assigned for data management at state/Region level, sub-optimal capacity of some of these staff for data management compounded by frequent turn-over of statistical staff, and challenges in obtaining reports in time from the remote and border due to the difficult terrain and weak telecommunication connectivity with these townships. At community based setting, variable capacity of community health workers is an issue.

For the PRs, M and E teams have not yet been fully set up for managing the GF grant but these are expected to be in place later during the year. Current written M and E documentation and DQA still needs to be adapted for the Global Fund grant. Reporting formats for SRs to report to the PR have not yet been developed; written instructions for data reporting and timelines for the sub-recipients will need to be provided by the time the project begins. Written instructions are not available for many procedures, both for data management and ensuring quality.

While standard source documents are in use by all reporting levels for reporting programme data, formats for reporting on programme activities have not yet been developed particularly for all partners to report in a standardized manner on community based activities.

The PRs and SRs have identified data quality challenges (such as double counting in the areas where multiple partners are implementing TB treatment services such as PSI, MMA and Malteser) However clear decisions and instructions to data-management staff at all levels on how to address them are not in place.

While systems for feedback are in place within the national programme, this is not as yet systematically done at all levels by the programme-- the focus is mainly on “poorly” performing townships, and only in terms of data reported. Formats for the PRs to provide feedback to SRs are yet to be developed

It was also felt that the capacity and accountability of supervisory staff for good data management on account of multiple responsibilities was still weak. A culture of evidence-based programme management at State / Regional level was felt to be lacking.

While there back-up procedure for when data-entry or data-processing is computerized the instructions to do so have not been written into the manual of the national programme. Similarly while separate registers are being maintained at the TB/HIV project sites, there is no written instruction for maintaining confidentiality of sensitive data at all sites.

At the present time there are no mechanisms in place to assess staff competencies in the field, following trainings.

Plans for strengthening data management

Both PRs will establish and fully staff the M&E unit, develop written guidelines/ SOPs on data management and reporting for the SRs.All sub-recipients will be provided details on reporting requirements and deadlines. An induction workshop will be carried out for SRs not only for M&E but also for procurement and technical issues relating to the GF project.

An M and E capacity support plan with additional support through joint UN TA plan

A DQA manual and systems for implementation will be developed and all concerned staff trained on DQA Capacity-building measures as planned will be implemented to support all sub-recipients to reporting quality data (e.g., training, workshops, and technical assistance). Standardized feedback formats and mechanisms for systematically providing feedback to all levels will be developed. Quarterly meeting at township and state and Region levels will be structured to ensure better focus on data management, including analysis and use and to focus on providing constructive feed back from Central, State / Region, District to Township levels ; township medical officers will be trained on use of data and feedback for improving implementation

Measures to improve connectivity between all townships and state/Region levels and central level (communication costs at township level--fees for fax, phone, internet, etc) will be provided to ensure timely and complete reporting. Plans to expand computerized data management to District level will be followed up with the national HMIS department. Data triangulation with national HMIS under dept of Health Planning at MoH will be undertaken to strengthen reporting particularly on TB mortality at the national level.

The present mechanisms to assess trainings and staff competencies will be reviewed and strengthened through use of standardized tools, mentoring and on the job training sessions, The HRD plan for the NTP will be updated to meet staffing requirements at the various levels. As an immediate measure the recruiting of programme officers, assistant programme officers and senior laboratory technicians as planned in GF proposal will be accelerated.

The programme and partners will develop formats for reporting on programme activities, including harmonized reporting formats for reporting on community-based activities and conduct trainings on data management at district/township levels to oversee the epidemiological implications of data reported for the programme. It is also proposed to organize consultative meetings to review data management on a regular basis between all partners at the different levels.

6.2.1 Ensure quality of data

6.2.1.1. Data Quality Audit (DQA)

Data Quality Assurance (DQA) tool at district level – case notification Smear positive TB

Township preparing TB quarterly reports on registration	
New Smear-positive TB Cases Notified	
Name of Township level audited:	
Name of State/Regional aggregating data from this township	
Reporting Period (period verified): **FROM**	**TO:**
Note to Supervision Team: The purpose of the Supervision at the District level (Peripheral Aggregation Level) is to: a. calculate the accuracy rate by cross checking source of information between themselves (TB cases from the quarterly report on TB case registration compared with the Township TB register, compared with TB Treatment cards, compared with patients- spot check) b. calculate the availability, completeness and timeliness rate of some of these source documents c. calculate the Recording and Reporting quality rate at township level based on a and b	
1. ACCURACY- RELIABILITY cross-checks to ascertain the accuracy	
Notes for Supervisor: Recount numbers of TB treatment card, Township TB register and quarterly reports in TB case registration for the selected audited quarter, compare the verified numbers between different source documents and explain discrepancies. Cross check 1.1, 1.2 and 1.3 are essential to calculate the recording and reporting accuracy- reliability rate. Others cross checks are optional	**Answer** (Yes / no or % or number
CROSS-CHECK 1.1 (essential): From **Township TB Register to the quarterly report on TB case registration**	
Recounted number of cases recorded during the reporting period in the Township TB register (number of the quarterly report on TB cases registration accuracy- reliability rate below)	
Copy the number of cases reported by the site during the audited quarter in the quarterly report of TB case registration. (denominator of the quarterly report on TB case registration accuracy- reliability rate below)	
1.1 Calculate the quarterly report on TB case registration accuracy-reliability *(% difference in the recounted/ reported numbers)*	
CROSS-CHECK 1.2 (essential): From **TB Treatment Cards** to the **Township TB Register**	
If feasible, select 10 TB Treatment Cards (but for less than 4 consecutive quarters) who are currently on treatment. How many cards were selected? (numerator of the Township TB register accuracy-reliability rate below)	
How many of the patients selected were recorded in the Township TB Register? (denominator of the Township TB register accuracy-reliability rate below)	
1.2 Calculate the Township TB register accuracy-reliability rate	
CROSS-CHECK 1.3 (essential): From the **Township TB Register** to **TB Treatment Cards**	
If feasible, select 10 patients recorded in the District TB Register who is currently on treatment (but for less than 4 consecutive quarters). How many patients were selected? (numerator of the TB Treatment card accuracy-reliability rate below)	
How many of the patients selected had TB Treatment cards? (denominator of the TB Treatment card accuracy-reliability rate below)	
1.3 Calculate the TB Treatment card accuracy- reliability rate	
Notes for supervisor: The supervision team can add other relevant cross-checks as appropriate. For example in townships where community all diagnosed TB cases are treated in the same Township health facility, the TB Laboratory Register should be cross check with the Township TB Register. To the extent relevant, the cross-checks should be performed in both directions (for example, from TB Laboratory Register to the Township TB Register and from Township TB Register to TB Laboratory Register).Cross check between Township TB register and laboratory register is more feasible in rural township with limited or no reference than urban township where reference are more common and difficult to trace.	
CROSS-CHECK 1.4 (essential): From the **TB Laboratory Register** to the **Township TB Register**	
If feasible, select 10 smear positive TB cases from the TB Laboratory Register during the audited quarter (or a maximum of all smear positive TB cases of 4 consecutive quarters). How many were selected? (numerator of the Township TB Register accuracy-reliability rate below)	
How many of the patients selected were recorded in the Township TB Register (or referred to and received in another TB unit for starting treatment)? (denominator of the Township TB Register accuracy-reliability rate below)	
1.4 Calculate the Township **TB register accuracy- reliability rate**	
CROSS-CHECK 1.5 (optional): From the Township **TB Register to the Laboratory Register**	
If feasible, select 10 smear positive TB cases from the Township TB Register during the audited quarter	

excluding TB cases "transfer in" and TB cases referred ie, diagnosed in another Township laboratory (or a maximum of all smear positive TB cases of 4 consecutive quarters). How many were selected? (numerator of the Laboratory TB Register accuracy- reliability rate below)	
If feasible, select 10 smear positive TB cases from the Township TB Register during the audited quarter excluding TB cases "transfer in" and TB cases referred ie, diagnosed in another Township laboratory (or a maximum of all smear positive TB cases of 4 consecutive quarters). How many were selected? (numerator of the Laboratory TB Register accuracy- reliability rate below)	
1.5 Calculate the Laboratory TB register accuracy-reliability rate	
CROSS-CHECK 1.6 (optional): 4FDCs tablets R150/H75/Z400/E275 from **the quarterly order form for TB drugs to the quarterly report on TB case registration.**	
Multiply the number of new TB cases (sputum smear microscopy positive + sputum smear microscopy negative+ extra-pulmonary + smear microscopy not done) registered by the site during the audited quarter from the quarterly report of TB case registration by 168 tablets R150/H75/Z400/E275. Multiply the number of previously treated TB cases (relapse, after failure, after default and other previously treated) registered by the site during the audited quarter from the quarterly report of TB case registration by 252 tablets R150/H75/Z400/E275. Adding both operations, how many tablets R150/H75/Z400/E275 were prescribed during the quarterly reporting period audited? (numerator of the quarterly report on quarterly TB drugs order from accuracy- reliability rate below)	
Counted from the quarterly order form for TB drugs and other TB drug stock register, the number of 4 FDC tablets of R150/H75/Z400/E275 used during the quarterly reporting period audited from the stock at the last day of the previous quarter minus the stock at the last day of the audited quarter plus the quantity drug ordered and received during same period. How many 4-FDC tablets of R150/H75/Z400/E275 have been used during the quarterly reporting period audited? (denominator of the quarterly report on quarterly TB drugs order form accuracy-reliability rate below)	
1.6 Calculate the quarterly order form for TB drugs accuracy-reliability rate. Drug consumption factor being an average consumption per case, drug accuracy rate between 90 to 110% are considered excellent and graded as 100% accuracy. At 111% and above, accuracy rate is noted 89% and below. At 89% and below, accuracy rate is noted 89% and below.	
1.7. Calculate the TB Recording and Reporting accuracy-reliability rate on TB case registration at District/Township level (average of essential and optional accuracy rate indicators)	
2. COMPLETENESS (essential)	
Notes for supervisor: Review completeness of TB Treatment card, Township TB register and quarterly reports on TB case registration for the selected audited quarter (or selected period in facilities managing large number of TB cases). Missing information is acceptable if not relevant information	**Answer** (Yes/no or %or number)
2.1 Recounted number of TB patients recorded in the Township TB Register with completed information on (1) date of registration during the audited quarter? (numerator of the Township TB register completeness rate below)	
2.2 Recounted number of TB patients recorded in the Township TB Register with completed information on (2) site of disease, during the audited quarter? (Numerator of the Township TB register completeness rate below).	
2.3 Recounted number of TB patients recorded in the Township TB Register with completed information on (3) type of patient, during the audited quarter? (Numerator of the Township TB register completeness rate below).	
2.4 Recounted number of TB patients recorded in the Township TB Register with completed information on (4) sputum smear microscopy result before treatment start, during the audited quarter? (numerator of the Township TB register completeness rate below).	
2.5 Copy the number of cases recorded in the Township TB register during the audited quarter. (denominator of the Township TB register completeness rate below)	
2.6. Calculate the Township TB register completeness rate (2.1+2.2+2.3+2.4)/4/(2.5)	
3. TIMELINESS OF SOURCE DOCUMENTS (essential)	
Notes for supervisor: It is recommended that the Supervision Team ask staff to describe the process through which the sending dates of quarterly report on TB case registration, the Township TB register and TB Treatment card are filled in after diagnosis is made	**Answer** (Yes/no or % or number)
Timeliness 3.1: The quarterly report on **TB case registration**	
Check the dates the quarterly reports on TB case registration from last 4 quarters were sent to upper level. How many reports were sent on time? (i.e, on time means delay at the end of the quarter according to **national guidelines usually less than 1 week** after the end of the calendar quarter date). Grade 0 to 2. Grade 2 when all report respect the recommended delay; grade 1 if the delay exceeds the recommended delay for one of the report; grade as 0 if one of the quarterly reports on TB cases registration from last 4 quarters were	

not sent to upper level or copy of sent reports not kept at Township level (except if there was no new TB cases registered during the quarter without quarterly report).	
Timeliness 3.2: The Township TB register	
Count in the Township TB register the number of days between laboratory date before treatment and date treatment start for 10 consecutive smear microscopy positive TB cases registered during the audited quarter (going beyond the audited quarter if necessary to assess 10 smear positive TB cases) and grade it 0 to 2. Grade as 2 if the average delay is below 7 days; grade as 1 if the average delay is higher than 8 days; grade as 0 if dates are missing for more than 2 smear microscopy positive TB cases. Treatment started before result of smear microscopy should be grade as 0.	
Timeliness 3.3: The TB Treatment card	
Count the number of days between date of registration in the TB treatment card and date of registration in the Township TB register for 10 consecutive smear microscopy positive TB cases registered during the audited quarter (going beyond the audited quarter if necessary to assess 10 smear positive TB cases)and grade it 0 to 2. Grade as 2 if the average delay is below 7 days; grade as 1 if the average delay is higher than 8 days; grade as 0 if dates are missing for more than 2 sputum positive TB cases. Treatment started before result of smear microscopy should be grade as 0.	
3.4. Calculate the timeliness rate (based on scoring rate): % (3.1+3.2+3.3/max. of 6)	
4. AVAILABILITY OF SOURCE DOCUMENTS(essential)	
Note for supervisor: Availability measures the existence of data source documents and information without assessing (if the information is filled in). Completeness measures whether the required questions are answered.	**Answer** (Yes/no or % or number)
Availability 4.1: The TB sources document	
Review availability of the Township TB register, Laboratory TB register, quarterly reports on TB case registration, quarterly report on TB drug order for the reporting period. Grade 0 to 4 according to availability of these 4 sources document for the audited quarter (i.e incomplete filling and archiving, computerization without print out is considered as missing document).	
Availability 4.2: Transfer document	
Is there a written procedure or source document to ensure that smear positive TB cases transferred out to another Township have been registered as transfer in the new Township (counter reference document sent from Township receiving the patient to Township sending the patient)? (if Yes grade1; No grade 0) (Receiving part C : for receiving transferred TB patients and part B: for sending patient treatment outcome)	
4.3. Calculate the availability rate (based on scoring rate), % (4.1+4.2/max. of 5)	
5.SPOT CHECKS to verify that the patient entered in the Township TB register have received TB services (optional)	
Notes for supervisor: A sample of smear positive patients entered in the Township TB register from the audited site may be visited, conducted by phone or invited to meet the supervision team. The purpose of spot-checks is to confirm case registered in the Township TB register (or/ and TB Treatment form) have received TB services. Spot-checks can be performed in three ways: (1) either the Supervision Team obtains the names and addresses of people and goes to find them in the community ; or (2) the Supervision Team asks representatives of the site to contact these people and ask them to come to the health facility (for example the next day or day of the visit if arrange prior to the visit through TB register random sampling); or (3) the Supervision Team call by phone the selected patients if they have access to a phone.	**Answer** (Yes/no or % or number)
5.1. How many patients were visited/ called by phone/ met at the health center? (numerator of the spot check rate below)	
5.2. How many of the patients contacted had actually received the service? (denominator of the spot check rate below)	
5.3. Calculate % difference between beneficiaries recorded as having received the service and those having actually received the service.	
Calculate the TB Recording and Reporting quality rate for registration at township level (1.7+2.6+3.4+4.3+5.3). Note that the weight for accuracy (1.7) equals the combined weight for completeness (2.6) + timeliness (3.4) + availability (4.3) + spot check (5.3)	
Additional Comments (if any)	

Data Quality Audit tool at State/Regional level – case notification Smear positive TB

Intermediate Level Health Facility aggregating TB quarterly reports on TB case registration (State/Regional or equivalent	
New Smear- positive TB Cases Notified	
Name of Health Facility (site) audited at State/Regional level:	
Name and number of Health Facility (site) at peripheral level (Township) sending quarterly report on TB case registration to this facility	
Reporting Period (this is the period that is being verified) **From:**	**To:**
Note to Supervision team: The purpose of the Supervision at the State/Regional level (Intermediate Aggregation Level) is to: a. calculate the accuracy rate by counting the re- aggregate numbers of TB cases reported from all quarterly from all quarterly report on TB case registration and compare it with the total submitted to the upper level (central level most often); and b. calculate the availability, completeness and timeliness rate of these quarterly reports on TB case registration received from all Districts/Townships (Health Facility sending quarterly report on TB case registration) c. calculate the Recording and Reporting quality rate at State/Regional level based on a and b	
1.ACCCURACY-RELIABILITY cross-checks to ascertain in the accuracy	
Note of Supervisor: Reported number of smear positive TB cases for audited quarter from all townships of the area (State/Regional) sending quarterly report on TB registration should be re-aggregated and the total compared to the number contained in the summary report prepared by the intermediate Aggregation Site and sent to upper level	**Answer** (Yes/no or % or number)
1.1 CROSS-CHECK: From township quarterly reports on TB case registration	
What is the aggregated number of smear positive TB cases for the audited quarter sent to the upper level (numerator of the Intermediate Level accuracy- reliability rate below)	
Recount the number of smear positive TB cases from the quarterly reports on TB registration received from all Township Health facilities of the State/Regional sending quarterly report for the audited quarter. (denominator of the Intermediate Level accuracy – reliability rate below)	
1.1. Accuracy – reliability rate (Intermediate Level) (% difference in the reported – aggregated numbers)	
2. COMPLETENESS of quarterly reports on TB case registration (essential)	
Notes for Supervisor: Missing information from all township quarterly reports on TB case registration for the audited quarter should be checked. Missing report and boxes left blank (rather than with 0 number) are acceptable if not relevant of if we consider there is 0 case.	**Answer** (Yes/no or % or number)
2.1. Recounted number of quarterly report on TB case registration in the State/Regional with completed information on (1) new pulmonary sputum smear microscopy positive, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below)	
2.2. Recounted number of quarterly report on TB case registration in the State/Regional with completed information on (2) new pulmonary sputum smear microscopy negative, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below)	
2.3. Recounted number of quarterly report on TB case registration in the State/Regional with completed information on (3) Pulmonary sputum smear microscopy not done/ not available, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below)	
2.4. Recounted number of quarterly report on TB case registration in the State/Regional with completed information on (4) sputum smear positive TB cases tested for HIV before or during TB treatment, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below)	
2.5. Copy the number of township facility sending quarterly report on TB case registration. (denominator of the quarterly report on TB case registration completeness rate below)	
2.6. Calculate the quarterly report in TB case registration completeness rate (2.1+2.2+2.3+2.4) / 4/ (2.5)	
3. TIMELINESS of reports received from all Health Facilities sending quarterly reports on TB case registration (essential)	
Notes for Supervisor: It is recommended that the Supervision Team ask staff to describe the process through which the sending dates or quarterly report on TB case registration are filled in	**Answer** (Yes/no or % or number)
Timeliness 3.1: The quarterly report on **TB case registration**	
Check the dates the aggregated quarterly reports on TB case registration from last 4 quarterly audited at State/Regional level and sent to upper level (central level). How many aggregated reports were sent on	

time?(i.e., on time means delay at the end of the quarter according to **national guidelines usually at one month** after the end of the calendar quarter date). Grade 0 to 3 for each quarterly report. Grade 3 when aggregated report respect the recommended delay; grade 2 if the delay exceeds the recommended delay for one of the aggregated report; grade as 1 if one or more township quarterly report is missing in the aggregated quarterly reports on TB case registration from last 4 quarters (district report without case is not considered as missing report): grade as 0 if one of the aggregated quarterly reports on TB case registration from last 4 quarters were not sent to upper level (central) or copy of sent reports not kept at State/Regional level.	
3.1. Calculate timeliness rate % On time Reports, % (grade 0 to 3/max. of 3)	
4. AVAILABILITY of quarterly report on TB case registration and treatment outcome (essential)	
Notes for Supervisors: This step involves all of the reports that the Intermediate Aggregation Site should have received from all townships sending quarterly report on TB case registration.	**Answer** (Yes/no or % or number)
Availability 4.1: The quarterly report on TB case registration	
4.1. How many township quarterly reports on TB case registration for the audited quarter are available at intermediate level for the audited period? (denominator of the quarterly report on TB case registration availability rate)	
4.2. How many reports should there have been from all townships sending quarterly report on TB case registration? (denominator of the quarterly report on TB case registration availability rate)	
4.3. Calculate % Availability rate for quarterly report on TB case registration %	
Calculate the TB Recording and Reporting quality rate at State/Regional **level (1.1+2.6+3.1+4.3). (Note that the weight for accuracy (1.1) equals the combined weight for completeness (2.6) + timeliness (3.1) + availability (4.3))**	
Additional Comments (if any)	

Data Quality Audit tool at central level – case notification Smear positive TB

Central Level M & E central unit aggregating TB quarterly reports on TB case registration	
New Smear Positive TB Cases Notified	
Name of Central M & E unit audited at Central level:	
Number of Health Facility (site) at peripheral level (Townships) sending quarterly report on TB registration to upper level (Intermediate and directly to central level)	
Number of Health Facility (site) at Intermediate level (State/Regional sending aggregated quarterly report on TB case registration to central level	
Reporting Period (this is the period that is being verified) **FROM:**	**TO:**
Note to Supervision Team: The purpose of the Supervision at the Central level is to: a. calculate the accuracy rate by counting the re-aggregate numbers of TB cases reported from all quarterly report on TB case registration sent by intermediate level and compare it with the total; and b. calculate the availability, completeness and timeliness rate of these quarterly reports on TB case registration received from all Provinces (Health Facility sending aggregated quarterly report on TB registration) c. calculate the Recording and Reporting quality rate at Central level based on a and b	
1. ACCURACY-RELIABILITY cross-checks to ascertain the accuracy	
Notes for Supervisor: Reported number of smear positive TB cases for audited quarter from all Township Health Facility of the country sending quarterly report on TB case registration should be re-aggregated and the total compared to the number contained in the summary report prepared by the central level.	**Answer** (Yes / no or % or number)
1.1 CROSS – CHECK: From aggregated **State/Regional quarterly reports on TB case registration**	
What is the aggregated number of smear positive TB cases for the audited quarter sent from State/Regional to the central level (numerator of the Central Level accuracy – reliability rate below)	
Recount the number of smear positive TB cases from the aggregated State/Regional quarterly reports on TB case registration received from all State/Regional of the country sending quarterly report for the audited quarter. (denominator of the central Level accuracy –reliability rate below)	
1.1 Accuracy – reliability rate for aggregated report (at central level) (% difference in the reported / re-aggregated numbers)	
1.2 CROSS-CHECK: From **Township the quarterly reports on TB case registration.**(optional)	
What is the aggregated number of smear positive TB cases for the audited quarter sent from townships to the central level through the State/Regional (numerator of the Central Level accuracy-reliability rate below)	
Recount the number of smear positive TB cases from the quarterly reports on TB case registration received from all Township Health Facility of the country sending quarterly report for the audited quarter. (denominator of the central Level accuracy – reliability rate below)	
1.2 Accuracy – reliability rate for district report (at central Level) (% difference in the reported/ re-aggregated numbers)	
1.3. Calculate the TB Recording and Reporting accuracy – reliability rate on TB case registration at Central level (average of essential and optional accuracy rate cells 1.1 and 1.2)	
2. COMPLETENESS of quarterly reports on TB case registration (essential)	
Notes for Supervisor: Missing information from Provincial quarterly reports on TB case registration for the audited quarter should be checked. Missing report and boxes left blank (rather than with 0 number) are acceptable if not relevant or if there is no case.	**Answer** (Yes / no or % or number)
2.1. Recounted number of aggregated quarterly report on TB case registration sent by intermediate level with completed information on (1) new pulmonary sputum smear microscopy positive , during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below).	
2.2. Recounted number of aggregated quarterly report on TB case registration sent by intermediate level with completed information on (2) new pulmonary sputum smear microscopy negative, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below).	
2.3. Recounted number of aggregated quarterly report on TB case registration sent by intermediate level with completed information on (3) Pulmonary sputum smear microscopy not done/ not available, during	

the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below).	
2.4. Recounted number of aggregated quarterly report on TB case registration sent by intermediate level with completed information on (4) sputum smear positive TB cases tested for HIV before or during TB treatment, during the audited quarter? (numerator of the quarterly report on TB case registration completeness rate below).	
2.5. Copy the number of provincial aggregated quarterly report on TB case registration (denominator of the quarterly report on TB case registration completeness rate below)	
2.6. Calculate the quarterly report in TB case registration completeness rate(2.1+2.2+2.3+2.4) /4/(2.5)	
3.TIMELINESS of aggregated quarterly reports on TB case registration (essential)	
Notes for supervisor : It is recommended that the Supervision Team ask staff to describe the process through which the sending dates of aggregated quarterly report on TB case registration are filled in.	**Answer** (Yes / no or % or number)
TIMELINESS 3.1: The quarterly report on TB case registration	
Check the dates the aggregated quarterly reports on TB case registration from last 4 quarters audited were received at central level and aggregated at central level. How many aggregated State/Regional reports were sent on time? (i.e., on time means delay at the end of the quarter according to **national guidelines usually less than 45 days** after the end of the calendar quarter date). Grade 0 to 3 for each aggregated national quarterly report. Grade 3 when all State/Regional aggregated report respect the recommended delay ; grade 2 if the delay exceeds the recommended delay for one of the aggregated State/Regional reports; grade as 1 if one of the State/Regional aggregated quarterly reports on TB case registration from last 4 quarters were not sent to central level or copy of sent reports not kept at central level; grade as 0 if one of the country aggregated quarterly reports on TB case registration from last 4 quarters were made or copy not kept at central level	
3. Calculate timeliness rate for On time Reports, % (grade 0 to 3/ max. of 3)	
4.AVAILABILITY of quarterly report on TB case registration (essential)	
Notes for supervisors: This step involves all of the reports the central level should have received from all Intermediate Aggregation Site sending aggregated quarterly report on TB case registration	**Answer** (Yes / no or % or number)
Availability 4.1: The quarterly report on TB case registration	
4.1. How many aggregated State/Regional quarterly report on TB case registration for the audited quarter are there? (denominator of the quarterly report on TB case registration availability rate)	
4.2. How many reports should there have been from all State/Regional sending aggregated quarterly report on TB case registration and aggregated country quarterly report on TB case registration? (denominator of the quarterly report on TB case registration availability rate)	
4.3.Calculate % Availability rate for quarterly report on TB case registration	
Calculate the Central Recording and Reporting quality rate (1.3+2.6+3.1+4.3). (Note that the weight for accuracy 1.3 equals the combined weight of completeness 2.6 + timeliness 3.1 + availability 4.3.)	
Calculate the Central Recording and Reporting quality rate (average of the audited township + intermediate + central rates)	
Additional Comments (if any)	

Data Quality Audit tool at Township level – on treatment outcome

Township Level M & E central unit aggregating TB quarterly reports on TB treatment outcome	
New Smear Positive TB Cases Notified	
Name of Township level audited:	
Name of State/Regional aggregating data from this township	
Reporting Period (period verified): **FROM** **TO:**	
Note to Supervision Team: The purpose of the Supervision at the Central level is to: a. calculate the accuracy – reliability rate by cross-checking sources of information among themselves (TB cases from the quarterly report on TB treatment outcome compared with the district TB register, compared with TB treatment cards); b. calculate the availability, completeness and timeliness rate of some of these source documents: c. calculate the recording and reporting quality rate at district level based on a and b.	
1. ACCURACY-RELIABILITY cross-checks to ascertain the accuracy	
Notes for Supervisor: recount the number of TB cases recorded in the township TB register and quarterly report on TB treatment outcome for the audited quarter. Compare the verified numbers among different source documents, and explain discrepancies. Cross-checks 1.1, 1.2 and 1.3 are essential to calculate the recording and reporting accuracy-reliability rate. The other cross-checks are optional.	**Answer** (Yes / no or % or number)
Cross-check 1.1. (essential): From Township TB register to the quarterly report on TB treatment outcome. Was this cross-check performed?	
What is the recounted number of new smear positive TB cases recorded during the audited reporting period in the Township TB register (for numerator in cell 1.1 below)	
Copy the number of new smear positive cases reported by the site during the audited quarter as total number evaluated for outcome in the quarterly report of TB treatment outcome (for denominator in cell 1.1 below)	
1.1. Calculate the quarterly report on TB treatment outcome accuracy-reliability (% difference in the recounted/reported numbers)	
What are the reasons for the discrepancy (if any) observed by the supervision team (i.e. any data entry errors, arithmetic errors, missing source documents, other reason?)	
Cross-check 1.2 (essential): From TB treatment cards to the Township TB register. Was this cross-check performed?	
If feasible, select 10 TB treatment cards (but for a maximum of 4 consecutive quarters) for patients who have started their treatment during the audited period (more than 9 months ago). How many cards were selected? (for numerator in cell 1.2 below)	
How many of the patients selected have an outcome recorded in the Township TB register? (for denominator in cell 1.2 below)	
1.2. Calculate the Township TB register accuracy – reliability rate (% difference)	
Cross-check 1.3 (essential): From the Township TB register to TB treatment cards. Was this cross-check performed?	
If feasible, select 10 patients recorded in the Township TB register (but for a maximum of 4 consecutive quarters) who have started their treatment during the audited period (more than 9 months ago). How many patients were selected? (for numerator in cell 1.3 below)	
How many of the patients selected had their treatment outcome recorded in the TB treatment card? (for denominator in cell 1.3 below)	
1.3. Calculate the TB treatment card accuracy-reliability rate (% difference)	
What are the reasons for the discrepancy (if any) observed by the supervision team (i.e. any data entry errors, arithmetic errors, missing source documents, other reasons)?	
Note for supervisor: The supervision team can add other relevant cross-checks as appropriate. For example in townships where defined support is provided during treatment by the community, the TB quarterly report on treatment outcome should be cross-checked with the township TB register (or treatment card). To the extent relevant, the cross-checks should be performed in both directions (for example, from quarterly report on treatment outcome to the township TB register and from the township TB register to the quarterly report on treatment outcome).	
Cross-check 1.4 (optional): Treatment support by the community from the quarterly report on treatment outcome to the township TB register. Was this cross-check performed?	
What is the recounted number of cases supported by the community during treatment and recorded during the audited reporting period in the district TB register? (for numerator in cell 1.4. below).	
Copy the number of cases supported by the community during treatment and reported by the site during the audited quarter in the quarterly report of TB treatment outcome (for denominator in cell 1.4 below)	

1.4. Calculate the township TB register accuracy-reliability rate for community involvement during treatment (% difference)	
What are the reasons for the discrepancy (if any) observed by the supervision team (i.e. any data entry errors, arithmetic errors, missing source documents, other reason)?	
Cross-check 1.5 (optional): Treatment supported by private providers from the quarterly report on treatment outcome to the Township TB register. Was this cross-check performed?	
What is the recounted number of cases supported by private providers during treatment and recorded during the audited reporting period in the township TB register? (for numerator in cell 1.5 below)	
Copy the number of cases supported by private providers during treatment and reported by the site during the audited quarter in the quarterly report of TB treatment outcome (for denominator in cell 1.5 below)	
1.5. Calculate the township TB register accuracy-reliability rate for private providers involvement during treatment (% difference)	
What are the reasons for the discrepancy (if any) observed by the supervision team (i.e. any data entry errors, arithmetic errors, missing source documents, other reasons)?	
Cross-check 1.6 (optional): TB/HIV patients on ART from the quarterly report on treatment outcome to the township TB register. Was this cross-check performed?	
What is the recounted number of TB/HIV patients started on ART during TB treatment and recorded during the audited reporting period in the district TB register? (for numerator in cell 1.6 below)	
Copy the number of TB/HIV patients on ART during treatment and reported by the site during the audited quarter in the quarterly report of TB treatment outcome (for denominator in cell 1.6 below)	
1.6. Calculate the district TB register accuracy-reliability rate for TB/HIV patients on ART during TB treatment (% difference)	
What are the reasons for the discrepancy (if any) observed by the supervision team (i.e. any data entry errors, arithmetic errors, missing source documents, other reasons)?	
1.7. Calculate the TB recording and reporting accuracy-reliability rate on treatment outcome at township level (average of essential and optional accuracy rate indicators cells 1.1 to 1.6)	
2. Completeness	
Note for supervisor: Recount the number of cases in the Township TB register and quarterly reports on TB treatment outcome for the audited quarter (or selected period in facilities managing large number of TB cases).	
2.1. Completeness of the quarterly report on treatment outcome to the quarterly report on TB registration. Was this cross-check performed?	
Copy number of smear positive TB cases reported as evaluated for outcome during the audited reporting period in the quarterly report on TB treatment outcome (for number of cell 2.1 below)	
Copy the number of cases registered and reported one year earlier in the quarterly report of TB cases registration by the site (for denominator of cell 2.1 below)	
2.1. Calculate the quarterly report on treatment outcome completeness rate for new smear positive TB cases.	
2.2. Completeness of the TB register. Was this cross-check performed?	
What is the recounted number of TB patients recorded in the township TB register with completed information on: **2.3**. Outcome status (cure, treatment complete, treatment failure, died, default, transfer), during the audited quarter? (For numerator of cell 2.8 below).	
2.4. Sputum smears microscopy result at month 5, during the audited quarter? (For numerator of cell 2, 8 below).	
2.5. Treatment support provided by community/ private provider or health facility, during the audited quarter? (For numerator of cell 2.8 below).	
2.6. ART status for TB/HIV patients, during the audited quarter? (For numerator of cell 2.8 below).	
2.7. Copy the number of cases recorded in the township TB register during the audited quarter (for denominator of cell 2.8 below).	
2.8. Calculate the township TB register completeness rate (2.3+2.4+2.5+2.6)/4/(2.7)	
2.9. Calculate completeness rate (2.1+2.8)/2	
3. Timeliness of source documents	
Note for supervisor: It is recommended that the supervision team ask staff to describe the timeline for each recording and reporting step for the quarterly report on TB treatment outcome, the township TB register and TB treatment card.	
The quarterly report on TB treatment outcome. Was this timeliness measured?	
Check the dates on which the quarterly reports on TB treatment outcome from the last four quarters were sent to upper level. How many reports were sent on time? (On time refers to the delay at quarter-end according to national guidelines, usually less than one week after the delay at quarter-end according to national guidelines, usually less than 15 days after the end of the quarter). Grade form 2 to 0. Grade as 2	

when all reports follow the recommended delay; grade as 1 if the delay exceeds the recommended delay for one of the reports; grade as 0 if one of the quarterly reports on TB treatment outcome from the last 4 quarters were not sent to upper level or a copy of sent reports not kept at township level (unless no new TB cases were registered during the quarter).	
3.1. Input timeliness rate (grade 0 to 2 / max. of 2)	
4. Availability of source documents	
	Answer (Yes/no or % or number)
4.1: TB source document. Was this availability measured?	
Review availability of the township TB register, and quarterly reports on TB treatment outcome for the audited reporting period. Grade from 2 to 0 according to availability of these 2 source documents for the audited quarter (incomplete filing and archiving, or missing printout for computerized records, is considered missing).	
4.2: Transfer document. Was this availability measured?	
Is there a written procedure or source document to ensure that smear positive TB cases transferred out to another township have their treatment outcome result updated in the TB township register (counterparty document/ information sent from township receiving the patient to township sending the patient on treatment outcome)? (If yes, grade 1; if no, grade 0)	
4.3. Calculate availability rate (4.1+4.2 / max. of 3)	
Township rate. Calculate the TB recording and reporting quality rate at township level for treatment outcome (1.7 + 2.9 + 3.1 + 4.3). Note that the weight for accuracy (1.7) equals the combined weight for completeness (2.9) + timeliness (3.1) + availability (4.3).	
Additional comments (if any)	

Data Quality Audit tool at State/Regional level – on treatment outcome

State/Regional level preparing TB quarterly reports on registration		
New Smear-positive TB Cases Notified		
Name of intermediate (State/Regional) health facility audited:		
Names and number of townships (peripheral) health facilities sending quarterly reports on TB case registration to this facility		
Period audited:	**FROM:** **TO:**	
Note to supervision (audit) team: The purpose of the supervision at this level is to: a. calculate the accuracy- reliability rate by counting the re-aggregate numbers of TB cases reported from all quarterly report on TB treatment outcome and compare it with the total submitted to the upper level (central level most often): b. calculate availability, completeness and timeliness rate of these quarterly reports on TB treatment outcome received from all townships: and c. calculate the recording and reporting quality rate at State/Regional level based on a and b.		
1. ACCURACY-RELABILITY cross checks		
Note for supervisor: The reports number of smear-positive TB cases for the audited quarter from all health facilities of the area (State/Regional) sending quarterly reports on TB treatment outcome should be re- aggregated and the total compared to the number contained in the summary report prepared by the intermediated aggregation site and sent to the upper level.		**Answer** (Yes/ no or % or number)
1.1 CROSS-CHECK: From township the quarterly reports on TB treatment outcome. Was this cross-check performed?		
What is the reported number of smear-positive TB cases for the audited quarter sent to the upper level? (for numerator of cell 1.1 below)		
Recount the number of smear-positive TB cases from the quarterly reports on TB treatment outcome received from all township health facilities of the State/Regional sending quarterly reports for the audited quarter (for denominator of cell 1.1 below)		
1.1 Accuracy- reliability rate (intermediate level) (% difference in the reported/ recounted numbers)		
2. COMPLETENESS of quarterly reports on TB case registration		
Note for supervisor: Missing information from all township quarterly reports on TB treatment outcome for the audited quarter should be checked. For missing reports, check that no TB cases have been enrolled during the period.		**Answer** (Yes/ no or % or number)
What is the recounted number of quarterly report on TB treatment outcome in the State/ Regional with completed information on: **2.1** new pulmonary sputum smear microscopy positive, during the audited quarter? (for numerator of cell 2.6)		
2.2 new pulmonary sputum smear microscopy negative, during the audited quarter? (for numerator of the quarterly report on TB treatment outcome completeness rate below)		
2.3 pulmonary sputum smear microscopy not done/ not available, during the audited quarter? (for numerator of the quarterly report on TB treatment outcome completeness rate below)		
2.4 sputum smear-positive TB cases tested for HIV before or during TB treatment, during the audited quarter? (for numerator of cell 2.6 below)		
2.5 Copy the number of township facilities sending quarterly report on TB treatment outcome.(for denominator of cell 2.6 below)		
2.6 Calculated the quarterly report in TB treatment outcome completeness rate (2.1+2.2+2.3+2.4)/4/(2.5)		
3. **TIMELINESS of reports received from all health facilities sending quarterly reports on TB treatment outcome**		
Note for supervisor : It is recommended that the supervision team ask staff to describe the timeline for each recording and reporting step for the quarterly report on TB treatment outcome		**Answer** (Yes/ no or % or number)
The quarterly report on TB treatment outcome. Was this timeline measured?		
Check the dates on which the quarterly reports on TB treatment outcome from the last 4 audited quarters were received at State/Regional level and sent to upper level (central level). How many reports were sent on time? (On time refers to the delay at quarter-end according to national guidelines, **usually less than one month** after the end of the quarter). Grade from 3 to 0 for each quarterly report. Grade as 3 when report the respect the recommending delay: grade as 2 if the		

delay exceeds the recommending delay for one of the reports: grade as 1 if one or more district quarterly reports is missing in the aggregated quarterly reports on TB treatment outcome from the last four quarters (a township report without a case is not considered missing): grade as 0 if one of the aggregated quarterly reports on TB treatment outcome from the last four quarters were not sent to State/Regional level and to upper level (central) or copy of sent reports not kept at State/Regional level.	
3.1 Input timeliness rate for on-time reports, % (grade 0 to 3/max. of 3)	
4. AVAILABILITY of quarterly report on TB treatment outcome	
Note for supervisor: This involves all of the reports that the intermediate aggregation site should have received from all townships sending quarterly reports on TB treatment outcome.	**Answer** (Yes/ no or % or number)
Quarterly report on TB treatment outcome. Was this availability measure?	
4.1 How many quarterly report on TB treatment outcome for the audited quarter are there?(for numerator of cell 4.3 below)	
4.2 How many reports should there have been from all townships sending quarterly report on TB treatment outcome and aggregated State/Regional quarterly report on TB treatment outcome? (for denominator of cell 4.3 below)	
4.3 Calculate availability rate for quarterly reports on TB treatment outcome,%	
Intermediate rate. Calculate the TB recording and reporting quality rate at State/Regional **level (1.1+2.6+3.1+4.3).** (Note that the weight for accuracy (1.1) equals the combined weight of completeness (2.6) + timeliness (3.1) + availability (4.3).	
Additional Comments(if any)	

Data Quality Audit tool at State/Regional level – on treatment outcome

For central M&E unit aggregating TB quarterly reports on treatment outcome		
New Smear-positive TB Cases Outcome		
Name of central M&E unit audited:		
Number of township (peripheral) health facilities sending quarterly reports on TB case registration to upper (intermediate) level and directly to central level		
Number of intermediate (State/ Regional or equivalent) health facilities sending aggregated quarterly reports on TB case registration to central level:		
Period audited:	**FROM:** **TO:**	
Note to supervision (audit) team: The purpose of the supervision at this level is to: a. calculate the accuracy-reliability rate by recounting (re-aggregating) the number of TB cases reported from all quarterly reports on TB treatment outcome sent by the intermediate level and comparing it with the central-level total; b. calculate the availability , completeness and timeliness rate of these quarterly reports on TB treatment outcome received from all State/Regional; and c. calculate the recording and reporting quality rate at central level based on a and b		
1. ACCURACY- RELIABILITY cross-checks		
Note for supervisor: Reported number of smear-positive TB cases for the audited quarter from all township health facilities sending quarterly reports on TB treatment outcome should be re-aggregated and the total compared to the number contained in the summary report prepared by the central level.		**Answer** (Yes/no or % or number)
1.1 CROSS-CHECK: From district quarterly reports on TB treatment outcome. Was this cross-check performed?		
What is the reported number of smear-positive TB cases for the audited quarter sent from State/Regional to central level (for numerator of cell 1.1 below)		
What is the recounted number of smear-positive TB cases from the quarterly reports on TB treatment outcome received by the central level from township health facilities for the audited quarter (for denominator of cell 1.1 below)		
1.1 Accuracy- reliability rate (central level) (% difference in the reported/recounted numbers)		
2. COMPLETENESS of quarterly reports on TB treatment outcome		
Note for supervisor: Missing information from State/Regional quarterly reports on TB treatment outcome for the audited quarter should be checked. For missing reports, check that no TB cases have been enrolled during the period.		**Answer** (Yes/no or % or number)
What is the recounted number of aggregated quarterly report on TB treatment outcome sent by intermediate level with completed information on: **2.1** new pulmonary sputum smear microscopy positive, during the audited quarter? (For numerator of cell 2.6 below).		
2.2 new pulmonary sputum smear microscopy negative, during the audited quarter? (For numerator of cell 2.6 below).		
2.3 pulmonary sputum smear microscopy not done/ not available, during the audited quarter? (For numerator of cell 2.6 below).		
2.4 sputum smear-positive TB cases tested for HIV before or during TB treatment, during the audited quarter? (For numerator of cell 2.6 below).		
2.5 Copy the number of State/Regional aggregated quarterly report on TB treatment outcome (for denominator of cell 2.6 below)		
2.6 Calculate the quarterly report in TB treatment outcome completeness rate (2.1+2.2+2.3+2.4)/4/(2.5)		
3. TIMELESS of aggregated quarterly reports on TB case registration		
Note for supervisor; It is recommended that the supervision team ask staff to describe the timeline for each recording and reporting step for the aggregated quarterly report on TB case registration		**Answer** (Yes/no or % or number)
The quarterly report on TB case registration. Was this timeliness measured?		
Check the dates the aggregated quarterly reports on TB case registration from the last 4 audited		

quarters were received at central level and aggregated at central level. How many reports were sent on time? (On time refers to the delay at quarter-end according to national guidelines, **usually less than 45 days after** the end of the quarter). Grade from 3 to 0 for each aggregated quarterly report and country report. Grade as 3 when all reports followed the recommended delay; grade as 2 if the delay exceeded the recommended delay for one of the reports; grade as 1 if one or more State/Regional quarterly report is missing in the country aggregated quarterly reports on TB treatment outcome from the last four quarters (a township report without cases is not considered as missing); grade as 0 if one of the country aggregated quarterly reports on TB case registration from the last four quarters were not made or a copy not kept at central level.	
3.1 Input timeliness rate for on-time reports, % (grade 0 to 3/max. of 3)	
4. AVAILABILITY of quarterly reports on TB treatment outcome	
Note for supervisor: This step involves all of the reports that the central level should have received from all intermediate aggregation sites sending aggregated quarterly reports on TB treatment outcome.	**Answer** (Yes/no or % or number)
Quarterly reports on TB treatment outcome. Was the availability measured?	
4.1 How many aggregated quarterly report on TB treatment outcome for the audited quarter are there? (for numerator of cell 4.3 below)	
4.2 How many reports should there have been from all State/Regional sending aggregated quarterly report on TB treatment outcome and aggregated country quarterly report on TB treatment outcome? (for denominator of cell 4.3 below)	
4.3 Calculate availability rate for quarterly reports on TB treatment outcome, %	
***CENTRAL RATE.* Calculate the central TB recording and reporting quality rate (1.1+2.6+3.1+4.3).** (Note that the weight for accuracy-reliability (1.1) equals the combined weight of completeness (2.6)+ timeliness (3.1) + availability (4.3)	
NATIONAL RATE. Calculate the country TB recording and reporting quality rate (average of the audited district + intermediate + central rates).	
Additional Comments (if any)	

6.2.1.2. Supervision, monitoring and systems for feedback

Regular monitoring of progress through supervision is carried out for every township. The NTP has developed standardized supervisory check lists for all levels. Supervisory visit plans are developed every year. State/Region TB Officers provide technical support to district and township level officers, on-the-job training during supervisory visits and feed back to improve implementation.

The NTP is also closely supervised by Central Supervisory Committee for prevention and control of TB chaired by Minister for Health. Laboratory supervision is strengthened by recruiting STLS from general health services.

On – site supervision

The NTP has set the following targets for supervisory activities on an annual basis:

- at least one supervisory visit per year to State / Region level by central NTP staff
- at least one supervisory visit per year to State / Region by central NTP Microbiologist
- two supervisory visits per year to districts by State / Region level staff
- two supervisory visits per year to townships by District and State / Region level staff

- four supervisory visit per year to Station hospitals and RHCs by TMOs
- four supervisory visits per month to sub-centers by HAs / LHVs
- two supervisory visits per year to TB/HIV implementing sites by central NTP staff
- at least one supervisory visit to border townships by central NTP staff
- at least one supervisory visit to PPM implementing townships by central NTP staff
- at least one joint supervision to project sites jointly implementing with implementing partners especially for community based TB control

6.2.2 Internal reviews and coordination with implementing partners

Monthly meeting at township level focuses on issues and challenges of TB control activities while the quarterly meetings focus on activity outcomes and achievements including data on cohorts of cases notified and treated. The Township TB Officer/District team leader or coordinator initiates the discussion on achievements, issues, challenges and constraints related to TB control at monthly meetings. Quarterly cohort review meeting will continue to be attended by central level staff in 30 low performance townships. Bi-annual review meetings are also held at State / Region levels. These meetings are also used to provide feedback—however there is no standardized format for feedback to townships.

Implementing partners have their own systems for reviewing programme implementation and share these with the NTP at central coordination meetings.

The NTP also conducts annual evaluation meeting yearly. All State / Region Health Directors, TB Officers, implementing partners attend these meetings. Separate annual meetings on PPM, TB/HIV and MDR-TB pilot activities are held. NTP also participates at the annual evaluation meeting of the partners.

The NTP plans to conduct mid term internal assessment in 2013 during the National 5 year strategic plan cycle to oversee the impact of MDGs.

6.2.3 Joint monitoring missions / Biennial external programme reviews

Missions to review the TB programme are undertaken every two years, jointly with independent external technical agencies including the UNION and WHO, which have proved very useful, since 2002.

Strengths of Supervision, monitoring and feedback

Standardized supervisory checklists have been developed for all levels and internal and external programme reviews established. Implementing partners have independent supervision and monitoring mechanisms.

Weakness of Supervision, monitoring and feedback

Limitation of financial resources and insufficient staffing has hampered supervisory activities till date. Supervisory check-lists do not at present have sections to report on progress and constraints relating to programme activities, staff competencies and actions taken on issues encountered during supervision. There are no standardized formats to report on action taken on the discussions at monthly/quarterly evaluation meetings at Township/ Regional/ State levels to

the central level. For supervision, the supervisory record book is kept in all health units to follow-up on the recommendations of previous supervisory visits and action taken.

Plans to strengthen supervision, monitoring and feedback

Standardized performance checklists for supervision including for monitoring programme activities, and formats for feedback at all levels will be developed for use by NTP and all the partners to monitor progress. Joint supervision plans will be developed and joint supervisory visits organized in collaboration with implementing partners, while the practice of annual internal reviews and biennial external reviews of the programme will be continued. Transport facilities like motorcycles and bicycles for States/Regions, districts and townships and actual travel costs for supervision have been included in the GF work plan and budget.

6.3 Concurrent Monitoring Mechanisms

6.3.1 Drug management monitoring

Standard operational procedures on drug and logistics management have been developed and staff from all townships trained in 2008. Drug monitoring and supervision is undertaken regularly by the central level of the NTP on a quarterly basis to States/ Regions/ and to townships.

Key aspects of drug management are covered in the standard supervisory checklist of the NTP. The TB software system (District Health Information Software) includes a component on the drug management. Quarterly and annual evaluations at all levels also focus on supply and drug management. NTP supplies all anti-TB drugs to implementing partners, some of whom regularly report back to the NTP on their drugs stocks.

In addition, the Global Drug Facility undertakes external missions annually to monitor progress of the NTP's activities and the drug management and to check adherence to the GDF terms and conditions. Post-distribution sampling and analysis to determine the quality of drugs is undertaken by the national FDA once a year.

6.3.2 Laboratory Quality Assurance

Laboratory technicians or medical technologists from state / Region hospitals are responsible for QC on sputum microscopy at township level. The NTP has a protocol for quality assessment activities for each quarter for each designated microscopy centre at the township level. The INGO (PSI, AZG) laboratories performing smear microscopy send slides for QC to the central level of the NTP.

The National Guideline on EQA-LQAS for AFB Microscopy were developed in October 2007 and trainings conducted for TB Officers, Laboratory Officers and Senior TB Laboratory Supervisors from State / Regional Level for proper selection and blind rechecking of the slides in 2008. Standardized supervisory reporting forms and QA forms are in use, and 20 Senior TB Laboratory Supervisors (STLS) have been assigned by the Ministry of Health to reinforce this work.

Strengths of Laboratory Quality Assurance

National TB Reference Laboratories have been established in Yangon and Mandalay. Senior Laboratory Technicians from General Health Services (National Health Laboratory)

reinforce the supervisory function of laboratory services. EQA-LQAS system has been established with the support of JICA Major Infectious Diseases Control Project.

Weaknesses of Laboratory Quality Assurance

Mechanisms for including private laboratories in the quality control system are not well established as yet. The work load of laboratory technicians performing laboratory QC remains high.

Plans to strengthen laboratory quality assurance mechanism

Update the HRD plan for laboratory services; trains newly recruited STLS and undertake refresher training for existing STLS. Sustain the integration of QC within General Health Services (NHL) by providing logistics support and develop a strategic plan and mechanisms for effectively including private laboratories within the national quality control system.

6.3.3 Monitoring the quality of training

Training is one of the essential elements of Health System Strengthening in National TB Control Programme. A ToT manual for facilitators had been developed and Training of trainers courses were conducted for Central and State / Regional Officers.

Strengths

All training materials are based on WHO internationally recommended training materials. A process of cascade training is followed preceded by training of trainers at the central and state and Regional levels, followed by trainings at the township level. Pre- and post-evaluations are undertaken regularly.

Weaknesses

A comprehensive HR plan is not yet in place. Staffs are not in place at all levels. Job descriptions of programme staff in the field do not specifically include data reporting on the different program areas (also since these formats have not yet been developed for the different programme areas). Training content, methodology and evaluation are not yet in place for new interventions (MDR-TB, infection control, TB/HIV) there is little follow up on trainings presently in the form of on-the –job reviews of competencies gained and sustained by staff in the field.

Plans to strengthen the quality of training

The HRD plan of the national programme will be updated and finalized. measures to assess training and assess competencies of community based care providers will be developed. The quality of all trainings will be more systematically assessed through continuing the practice of evaluating trainings held, through reporting on pre and post-test evaluations, training content and methodology evaluation reports and overall training course reports. Performance evaluation through supervisory reports on staff competencies in the filed will also be undertaken. Staffs need to be recruited as planned and job descriptions reviewed and updated to include responsibilities for reporting on the different program areas. The training content, methodology and systems for

evaluation of staff skills and competencies need to be developed for new interventions (MDR-TB, infection control, TB/HIV)

6.4. Impact assessments

NTP uses the WHO standardized recording and reporting formats for case notifications and reporting on treatment outcomes throughout the country on a quarterly basis. NTP publishes the annual report which also reflects in Global TB report published annually by WHO. The first representative prevalence survey in Yangon Region was completed in 2007 that required repeating to determined trends in prevalence of disease.

Nationwide drug resistance surveys for first-line drugs were undertaken during 2002-3 and 2007-8 and will be repeated in 2011. A second-line drug resistance study among Cat 2 failures was completed in 2008.

TB/HIV surveillance is limited to 20 sentinel sites. Under Global Fund proposal it is planned for expansion into 40 surveillance sites in next 5 years.

Data collection for a nation-wide TB prevalence survey and a KAP survey were carried out in 2009 and the results are expected to be published in 2011. The epidemiological surveys planned during the reporting period are as listed under the workplan of activities for 2011-2015.

7. Coordination and partnership oversight mechanisms

The Myanmar Country Coordinating Mechanism (M-CCM) comprises 29 members to oversee and coordinate the national response with all stakeholders. The Technical Strategic Group on TB formed comprising of the NTP and representatives from all implementing partners under M-CCM, provided technical support in developing the GF proposal, and will support programme planning, implementation and monitoring. However coordination between partners at all levels was felt to be sub-optimal.

Plans to strengthen coordination and oversight

It was agreed that that it would be essential to ensure that all partners report through a single unified system starting at the township level to avoid the double counting and develop mechanisms for better coordination to address double reporting of patients receiving support across organizations. Formats for monitoring community-level activities between different implementing partners will be harmonized. Coordination between partners at all levels will be improved though regular coordination meetings which have been planned. The NTP and all partners will report and disseminate issues and decision points emerging from quarterly evaluation meetings at township, state/Region to the central level, in order to inform and harmonize implementation of the programme by all partners. Regular quarterly meetings of the TSG will be held to improve overall coordination and oversight of activities and performance monitoring of all partners.

8. Work plan and Budget

Three-Year (pre-signature and Years 1 & 2) Action Plan for M&E Strengthening

Provide clear and specific formulation of ALL M&E activities to be carried out this year - this includes strengthening measures identified in the M&E Systems Strengthening Assessment and other routine M&E activities. Avoid using general terms such as "st	Q1	Q2	Q3	Q4						
		X			NTP	WHO				

			X	X	TSG	N/A				
Ensure written instructions are in place for all procedures to be followed for M&E				X		N/A		GF		

9. Materials and tools

The guidelines, data verification tool, records/registers, reports, feedback forms, and checklists are listed below.

9.1. Guidelines

- NTP manual
- TB Control Manual for Basic Health Staff
- SOP for drugs and supplies management
- Patient Kit management guide
- SOP for sputum for AFB microscopy
- SOP for solid culture and DST
- SOP for laboratory external quality control system
- Minimum package for TB/HIV collaborative activities at district level
- National Framework for the Management of drug resistant TB
- SOP for MDR-TB management for Category II failure cases (Pilot project)
- Management of childhood TB guideline
- Training module to training methodology
- Training module for “Management of TB at district level”
- Training module for “Management of TB at health facility level”
- Counseling guide
- Public Private Mix for DOTS
- Training module for PPM
- Guideline for cohort review meeting
- Data management training module
- DHIS guide
- Guide for community TB care
- TB/HIV manual

9.2. Data verification tool

- Laboratory EQA forms

9.3. Record and report form

Annex 1 - Reporting forms and registers

1.1. Tuberculosis Treatment Card – TB 01

1.2. Patient Treatment Book – TB 02

1.3. Township TB Register – TB 03

1.4. Township TB Laboratory Register – TB 04
1.5. Request for Sputum Examination Form TB – 05
1.6. Quarterly Report on TB Case Registration TB – 07
1.7. Quarterly report on the results of TB patients registered 12-15 months earlier TB – 08 (a)
1.8. Quarterly report on the results of TB-HIV patients registered 12-15 months earlier TB - 08 (b)
1.9. Quarterly Report on Drug Stock
1.10. Quarterly Report on laboratory supplies and equipment
1.11. Qualification template for required reagent
1.12. Inventory card for drugs and supplies
1.13. Order Form for drugs supplies
1.14. Unpacking and checking from
1.15. Issue voucher
1.16. Main stock / sub stock format
1.17. Supply delivery form
1.18. Tuberculosis Referral / Transfer Form
1.19. Inform letter to health centres from TMO for DOTS Provision/Supervision
1.20. Township Tuberculosis Patient Transfer In / Out Register
1.21. Township TB Sub-register for Station Hospitals and RHCs
1.22. Monthly Initial Home Visits and Contact Tracing Report from township
1.23. Initial Home Visit and contact tracing monthly report of BHS
1.24. Reporting format for BHS on home visit at the end of initial intensive phase for smear positive TB patients
1.25. Report for advocacy meeting at township level
1.26. Monthly report for health education activities at township level
1.27. Referral Form for private practitioners / Feed – back Form to private practitioners
1.28. Feed-back Form to private practitioners from TB Centre
1.29. Quarterly Report on TB case registration (Option-3)
1.30. Quarterly Drug Balance Report Form (Option-3)
1.31. Drug Order form (Option-3)
1.32. Quarterly Drug Balance Report Form (Option-4)
1.33. Drug Order form (Option-4)

1.34. National TB Programme, EQA Form

1.35. Smear Slide Preparation by Microscopy Center, Form (2)

1.36. Smear Slide Reading, Form (3)

1.37. Smear Slide Preparation, Form (4)

1.38. Quality Control Work Sheet for Sputum Smear Examination *(Form A-1)*

1.39. Quality Control Work Sheet for Sputum Smear Examination *(Form A -2)*

1.40. Feed back sheet *(Form B)*

1.41. Requisition form for Culture and Drug Susceptibility Testing of TB (Form 1)

1.42. Community based DOTS activities (••• •

•

1.43. Township Community Volunteer Registry

1.44.

1.45.

1.46.

1.47.

1.48. Record and report for TB patients involvement in TB control, Record for TB patient self help group

1.49. MDR-TB Treatment Card

1.50. MDR-TB Register

1.51. Patient Identity Card, (Form 03)

1.52. Lab. Requisition form for culture and DST (Form 04)

1.53. Laboratory Register for Culture and DST (Form 05)

1.54. Drug Resistant Testing

1.55. DR-TB Suspect Register (Form 06)

1.56. Quarterly report on MDR-TB case detection (Form 07)

1.57. Six-month interim outcome assessment (Form 08)

1.58. MDR-TB treatment 12 month culture conversion Report (Form 09)

1.59. Annual Report Of Treatment Outcome Of MDR-TB Regimens (Form 10)

1.60. Quarterly Laboratory MDR-TB Report (Form 11)

1.61. Register For Missed Dose Tracing (Form 12)

1.62. List Of MDR-TB Directly Observed Treatment (Form 13)

1.63. Patient's Informed Consent For Treatment Form (Form 14)

1.64. MDR-TB Referral Form (Form 15)

1.65. Quarterly Drug Report for MDR-TB management (Form-16)

1.66. TB/HIV cross referral form

1.67. Quarterly report for TB/HIV collaborative activity

1.68. Monthly VCT Report

1.69. Monthly IPT report from Clinic/Township to Region/State & Central NAP/NTP

1.70. Daily OPD and TB screening register

1.71. IPT Register

1.72. Monthly / Quarterly Report for Sputum Collection Center

1.73. Sputum Collection Center Register

1.74. TB sputum samples dispatch list

Annex 2 - Check lists for Supervision

2.1 Check list for supervisory visit to township level

2.2 Detailed Supervisory check list for township health facility

2.3 Supervisory check list for Rural Health Center

2.4 Supervision Check List for NTP Drug and Supply

2.5 Supervision report form

Annex 3 - Feedback forms

3.1 Feedback for townships of _____ State/Region

3.2 Quarterly Assessment of TB Control Activities

3.3 Quarterly Evaluation format of TB Control activities

3.4 Monthly/Quarterly TB Meeting and reporting format

3.5 Cohort review meeting report for township

3.6 Annual Evaluation on National Tuberculosis Programme

3.7 NTP Training Activities List

Annex 4 – Key Indicators: Operational definitions

Annex 1 - Reporting forms and registers

Annex 1.1

TUBERCULOSIS TREATMENT CARD (TB-01)

Township TB No. _____
Health facility _____

Name _____
Complete address (Permanent) _____
(Temporary)_____
Sex M☐ F☐ Age _____
Name and address of 1. DOT Provider_ _____
2. DOT Supervisor _____
3. Contact Person _____

Disease site
Pulmonary☐ Extra Pulmonary ☐
(Specify)_____

Referred by
☐ Self referral
☐ Community member
☐ Public facility
☐ Private practitioner
☐ Other (specify)

Types of TB patient
New ☐ Treatment after failure ☐
Relapse ☐ Treatment after default ☐
Transfer in ☐ Other (specify) ☐
_____

INITIAL PHASE - Prescribed regimen and dosages
Tick frequency: Daily ☐
Tick category and indicate number of tablets per dose and Dosage of S (grams):

CAT I
New case ☐
(Smear-positive, or seriously Ill smear-negative or EP)

(HRZE) (HR) Z S(E)

CAT II
Re-treatment ☐

(HRZE) (HR) Z E S

CAT III
New Case ☐
(Smear-negative or EP)

(HRZE) (HR) Z S(E)

(HR) = isoniazid and rifampicin Z = pyrazinamide E= ethambutol
S = streptomycin (HRZE) = 4FDC

Month	Results of Sputum Examination			Result of Culture and DST							Weight (kg)
	Date	Smear	Lab: No.	Date	Lab: No.	C result	DST result				
							H	R	E	S	
0											

C = Culture result (+ = positive, Neg. = Negative, Con + Contaminated)
DST result: S = Sensitive, R = Resistant

Tick appropriate box after the drugs have been administered

Month \ Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number doses this month	Total doses given	Drugs given Date	Doses

Please turn over for continuation phase

II. CONTINUATION PHASE - Prescribed regimen and dosages

Tick frequency: Daily ☐

Tick category: CAT I CAT II CAT III

Indicate number ☐ (4 months) ☐☐☐ (5 months) ☐ (4 months)

(HR) (HRE)(HR) E (HR)

Day / Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number doses this month	Total number doses given

Enter (•) on day of directly observed treatment. For a self-administered regimen, enter (X) on day when drugs are collected. Any time drugs are given for self-administration, draw a horizontal line (--------) through the number of days•supply given.

Observations: eg. CXR findings, side effect, any action by BHS, other co-morbidities, etc.:

_____

_____

_____

Treatment outcome

Date of decision _____

Cure ☐

Treatment completed ☐

Treatment failure ☐

Died ☐

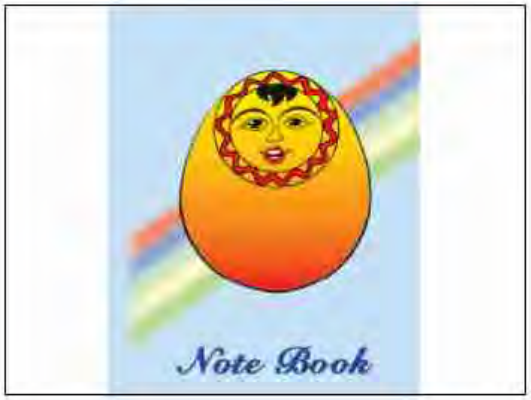
Default ☐

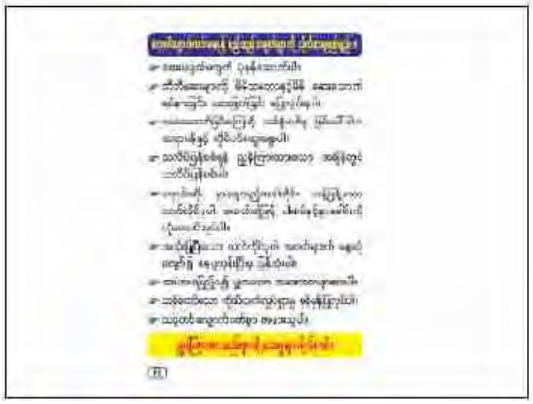
Transfer out☐

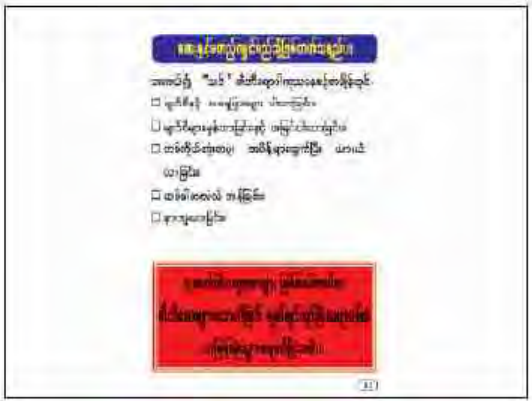
Retro status	Date	Result
VCCT		
CPT start		
ART start		
Result: 1 = Positive, 2 = Negative, 3 =Indeterminate, 4 = not done / unknown		

Annex 1.2

Patient Treatment Book-TB 02







Annex 1.3

Township TB Register-TB-03

Date of Registra-tion	Township TB No	Name (In Full)	Age	Sex M/F	Address (In Full)	Name of Treatment Unit, Referred from	Date Start Treatment and Regimen	Disease Classifi-cation P/EP and CXR finding	Type of Patient					
									New (N)	Relapse (R)	Failure (F)	Treatment After Default (D)	Transfe r In (T)	Other (O)
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								

Sputum Examination (M. Indicate Months Of Treatment Upper Space – Result, Lower Space - Lab: No)				Culture DST (Result Date, Lab. No)	HIV care		Date Treatment Stopped						Remarks (cause of death, transferred township, community support)
Pre: Treatment Smear	End of 2nd M (New) 3rd (Retr) Smear	5th M Smear	6th.M (New) 8th M (Retr) Smear		VCCT result and Date	CPT ART	1 Cured	2 Treatment Completed	3 Died	4 Failure	5 Defaulted	6 Transfer-red Out	

Annex 1.4

Township TB Laboratory Register-TB-04

DAILY TUBERCULOSIS LABORATORY REGISTER (TB-04)

----------Township Year ……

Date	Lab. Serial No.	Name	Patient Reg. No.	Age	Sex	Name of treatment Unit and referral	Address (for Dx cases)	Reason for Examin:		Result of Specimen			Remarks (TB. No. after reg.)
								Dx (Tick)	F/U (Month)	1	2	3	

Annex 1.5

Age _____ **Sex (M/F)** _____

Address (precise) _____

Laboratory Serial No _____

Date							

The completed form (with results) should be sent promptly to the treatment unit

Annex 1.6

National Tuberculosis Programme, Myanmar
Quarterly Report on TB Case Registration TB – 07

Name of townships/ code no._____ State/Region _____ Name of Township TB coordinator_____	Patients registered during ___ _____quarter of _____ _____	Date of completion of this form:_____

Area population _____

CDR (New Smear Positive) = Block(1), Column (1) x 100
(Percent) Population x 105/100,000

CNR (New Smear Positive) = Block (1), Column (1) x 100,000
Per 100,000 pop. Population

Quarter	CDR (%)	CNR /100,000
1st Q		
2nd Q		
3rd Q		
4th Q		
Total		

Block 1. All patients registered in the quarter except Transfer-in patients

Pulmonary Tuberculosis													Extra-pulmonary Tuberculosis		Other		Total		
Smear Positive									Smear Negative		Primary complex								
New Cases			Previously treated cases																
			Relapse		Trt after D/F		Trt after failure												
(1)			(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		
M	F	T	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T

Block 2. New pulmonary smear positive TB cases (Block 1, column 1) by sex and age group

Age group in years														Total		
0-14		15-24		25-34		35-44		45-54		55-64		65 or more				
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T

Sputum smear negative pulmonary TB patients and extra-pulmonary TB patients by age group

Primary Complex (PTB)			All EP (Including TBM and HL)			TBM			HL -Hilar lymphadenopathy		
0-4	5-14	=15	0-4	5-14	=15	0-4	5-14	=15	0-4	5-14	=15

Block 3. Enrollment during quarter on treatment regimens including Transfer-in patients

CAT I				CAT II					CAT III			Grand Total
Sputum smear positive	Severe form		Total	Relapse	Treatment after default	Treatment after failure	Other	Total	Less severe form		Total	
	Smear negative	EP							Smear negative	EP		

Remarks - ----------

Quarters: 1st quarter = January, February, March 3rd quarter = July, August, September
2nd quarter = April, May, June 4th quarter = October, November, December

PC = Primary Complex, **TBM** = TB meningitis, **Trt after default** = treatment after interruption
Trt after failure = Treatment after failure **EP** = Extra-pulmonary Tuberculosis patients

Other (type of patient) = All cases that do not meet the definitions of new, relapse, treatment after failure, treatment after default and transfer in. But these patients may be smear negative as well as EP and they must be treated with Category II regimen.

Block 4. Case Finding and Follow-up sputum examination

	No. of patients	No. of slides
a. Number of suspects (Dx) examined by microscopy for case finding		
b. Number of smear positive patients detected out of suspects (Dx)		
c. Number of patients examined by microscopy for follow-up		
d. Number of smear positive out of follow-up patients		

Block 5. Sputum conversion at 2 (3) months in new smear positive patients registered in Township TB register one quarter previously (3 months ago)

New smear positive cases registered in previous quarter (1)	Smear not done at either 2 or 3 months\ (end of Initial phase) (2)	Sputum conversion at (3) (4)				Remaining positive at 3 months (5)	Total (2+3+4+5)
		2 months		3 months			
		No.	%	No.	%	No	

Sputum conversion rate = Percentage of Column 3 + Percentage of Column 4 = %

Countersigned by _____ Signature _____

Designation _____ Designation _____

Note: Known HIV co-infected TB patients are to be reported using quarterly report on TB case registration (TB-07)

Annex 1.7

Quarterly report on the results of TB patients registered 12-15 months earlier -TB 08 (a)

Name of township _____ Township code no._____ Name of Township TB coordinator_____	Patients registered during ___ _____quarter of _____ _____	Date of completion of this form:_____ signature _____

Regimen	(1) Cured	(2) Completed	(3) Died	(4) Failure	(5) Defaulted	(6) Transferred to another Township	(7) Total No. evaluated (Sum of column 1 to 6)
1. New cases							
1.1. Smear positive							
1.2. Smear negative							
1.3 Primary complex <15 yr							
1.4 Hilar lymphadenopathy <15 yr							
1.5 TB meningitis <15 yr							
1.6 Extra-pulmonary <15 yr							
1.7 Extra-pulmonary =15 yr							
2. Re-treatment							
2.1 Relapses							
2.2 Treatment after default							
2.3 Treatment after failure							
2.4 Other							

Of those _____(number) were excluded from evaluation of chemotherapy for the following reasons: _____

Cure Rate (CR) of new smear positive cases = 1.1 New smear positive column (1) / 1.1 New smear positive column (7) x 100 = (%)

Treatment Success Rate (TSR) of new smear positive cases = 1.1 New smear positive column (1) + (2) / 1.1 New smear positive column (7) x 100 = (%)

Qr.	Total Evaluated	Cured		Completed		TSR	
		No	%	No	%	No	%
1st Q							
2nd Q							
3rd Q							
4th Q							
Total							

Annex 1.8

Quarterly report on the results of TB-HIV patients registered 12-15 months earlier -TB 08 (b)

(Same quarter of previous year)

Name of township _____ Township code no._____ Name of Township TB coordinator_____	Patients registered during ___ _____quarter of _____ _____	Date of completion of this form:_____ signature _____

Regimen	(1) Cured	(2) Completed	(3) Died	(4) Failure	(5) Defaulted	(6) Transferred to another Township	(7) Total No. evaluated (Sum of column 1 to 6)
1. New cases							
1.1 Smear positive							
1.2 Smear negative							
1.3 Primary complex							
1.4 TB meningitis							
1.5 Extra-pulmonary							
2. Re-treatment							
2.1 Relapses							
2.2 Treatment after default							
2.3 Treatment after failure							
2.4 Other							

Of those _____(number) were excluded from evaluation of chemotherapy for the following reasons: _____

Cure Rate (CR) = 1.1 New smear positive column (1) x 100 = (%)
Of new smear positive cases 1.1 New smear positive column (7)

Treatment Success Rate (TSR) = 1.1 New smear positive column (1) + (2) x 100 = (%)
of new smear positive cases 1.1 New smear positive column (7)

	CPT	ART
No. of TB patients		

Qr.	Total Evaluated	Cured		Completed		TSR	
		No	%	No	%	No	%
1st Q							
2nd Q							
3rd Q							
4th Q							
Total							

Annex 1.9

Quarterly Report on Drug Stock

Name of townships/ code no. _____ State/Region _____ Name of Township TB coordinator_____	_____ quarter of_____	Date of completion of this form:_____

Drug Stock (In tab or cap or vial) (Main stock + sub stock)

Item	Inj.S (1G)	H 100 mg	H 300 mg	R 300 mg	Z 400 mg	E 400 mg	HR (2 FDC)	HRZE (4FDC)	Cat I Kit	Cat II Kit	HRE	Paed. (HRZ)	Paed. (HR)	Water	Syringes/ needles
1. Opening balance															
2. Received during quarter															
3. Issued during quarter															
4. Closing balance															
Expiry Date															
1 month needs															
Month in hand															

Supply box balance – HRZE _____, Inj. S _____, HR _____, HRE _____

Countersigned by _____ Signature _____
Name _____ Name _____
Designation _____ Designation _____

Annex 1.10

Quarterly Report on laboratory supplies and equipment stock for State/Region and central level

Name of townships/ code no. _____ State/Region _____ Name of Township TB coordinator_____	_____ quarter of_____	Date of completion of this form:_____

Stock balance (Main stock + sub stock)

Item	Sputum container	Slide	Slide box	Carbol fuchsin (ml)	Sulphuric acid (ml)	Methylene blue (ml)	Spirit	Immersion oil (ml)	Phenol (ml)	Methanol	HIV rapid test kit	HIV confirmation test kit
1. Opening balance												
2. Received during quarter												
3. Issued during quarter												
4. Closing balance												
Expirary date												

Countersigned by_____ Signature _____
Name _____ Name _____
Designation _____ Designation _____

Annex 1. 11

Quantification Template for required Reagents

Quarterly Supply Requirements for a Microscopy Centre

State/Region	Quarter
Township	Year
Centre	

Total smears examined in previous quarter (**A**) = 500

Items	Quantity needed per smear **B**	Calculated requirements for one quarter **C = A * B**	Reserve quantity for one quarter **D = C**	Stock in hand **E***	Calculated request **F =C+D**	Actual request (Rounded **)	Ordering unit
Carbol fuchsin	3.0 ml						Bottle (1 Liter)
Sulphuric acid	6.0 ml						Bottle (1 Liter)
Methylene blue	3.0 ml						Bottle (1 Liter)
Immersion oil	0.05 ml						Bottle (50 ml)
Burning spirit	1 ml						Bottle (1 Liter)
Phenol							
Methanol							
Slides							
Sputum container							
HIV test kit #							
HIV confirmation test kit #							

*** Stock in hand (E) is not allowed to continue using. It has to be discarded.**

****Round up to the next indent digit.**

\# **HIV test kids are to be indented to STI team. It's to be filled up to know the needs.**

Countersigned by_____ Signature _____
Name _____ Name _____
Designation _____ Designation _____

Annex 1.12

Inventory card for Drugs and Supplies

Description _____ Strength _____
Stock No: _____ Packing Size _____ Accounting Unit _____ Location _____

Sr. No	Date	IV NO: (Received)	Source of Supply	Batch No:	Expiry Date	Quantity Received	IV No: (Issued)	Issue to	Quantity Issued	Balance	Remarks	Signature

Annex 1-13

Order Form for Drug Supplies

Fixed Dose Combination and patient kits, daily course

_____ State / Region _____ Townships

_____ Quarter _____ Year

Enter the number of cases enrolled in the previous three months (Quarter) (from the Quarterly Report on Case-finding)

Item	Category I 2HRZE / 4HR A			Category II 2HRZES / HRZE/ 5HRE B			Category III C			Total A + B+ C = D
	Case	Factor	Total	Case	Factor	Total	Case	Factor	Total	
HRZE (FDC)		x 168 =			x 252 =			x 168 =		
RH (FDC)		x 336 =			x 420 =			x 336=		
Z 400 mg										
E 400 mg					x 280 =					
S 0.75 gm/ 1gm					x 56 =					
Syringe					x 56 =					
Needles					x 56 =					
Water for Inj: (5ml)					x 56 =					
Kit		x 1 =						x 1 =		A+C
Cat 2 Kit					x 1 =					B
Paed. HRZ								x 168 =		
Paed. HR								x 336 =		

Item	Running Requirement E(= D from above)	Reserve Requirement F (= E) S/D only *	Currently in Stock G	Expiry Date	Total Order E + F - G
HRZE (FDC)					
RH (FDC)					
Z 400 mg					
E 400 mg					
S 0.75 gm/ 1gm					
Syringe					
Needles					
Water for Inj: (5ml)					
Cat I Kit					
Cat II Kit					
Paed. HRZ					
Paed. HR					

N.B - Factors are calculated for 40-54 kg and above patients.

Checked by - Signature ……..

Designation ……

Annex 1-14

Unpacking and Checking Form

Received date ----------

Consignee (Name of Health Unit) ---------- Unpacking/ Checking Date -----

Consignor ----------

Issue Voucher No./ Date ----------

Total No. of Packages ----------

Sr. No.	Package No.	Packing Condition/ Weight of Package	Content (Commodity with Specification)	A/U	Invoice/ Packing List Qty	Actual Received Qty	Surplus Qty	Shortage Qty	Damage	Remark

Annex 1-15

Issue Voucher

Original I.V No. ----------

Issuing Department ----------

Date ----------

Issued to ----------

Sr. No.	Nomenclature	A/U	Issued Quantity	Expiry Date	Remarks

Signature of ---------- Signature of Officer ----------

Store Officer ordering issue of Stores

Annex 1-16

Main stock book

Drug _____ packing size _____ accounting unit _____

Date	From whom received To issued	Received quantity	Issued quantity	Balance	Expiry date	Signature	Remarks

Sub stock book

Drug _____ Packing size _____ Accounting unit _____

Date	From whom received To issued (IV No.)	Received quantity	Issued quantity	Balance	Expiry date	Signature	Remarks

Annex 1-17

Supply Delivery Form

Delivered to ----------

Carrier's Name ---------- Date----------

Sr. No.	I.V No.	Description	Packages	Remarks
Total				

Checked and found complete and correct.

Signature of Officer

Designation ----------

Department ---------- Handed over by ----------Received by ---------

Name ---------- Name----------

Designation ---------- Designation ----------

Received by ---------- Department ----------

Driver's Name ---------- Truck No. ----------

Annex 1-18

Tuberculosis Referral/Transfer Form

Part (A)

Name of Referring / Transferring Unit: ____________________
Referral Unit to which patient is referred: ____________________
Name of patient: ____________________ Age: ________ Sex: ________
Address (in full): ____________________

____

In patient No: / Out patient No: / Township TB No: ____________________

Disease classification	Investigations	Sputum results		X'ray finding and date
☐ **Pulmonary**	Sputum exam: Pos ☐ Neg: ☐	0 month		
		1st month		
☐ **Extra-pulmonary** **Site:**	**Biopsy finding**	2nd month		
		3rd month		
	Culture result Pos ☐ Neg: ☐			
Treatment given:				
Dosage and started date:				

(Sputum result and X'ray film should be attached with this form)

Signature: ____________________ Date referred/transferred: ____________________
Designation: ____________________

✂ -

Part (B) **Send this back to the Referring Unit as soon as patient has completed the treatment.**

Name of patient: ____________________ Age: ________ Sex: ________
Township from which patient was transferred out: ____________________
Previous Township TB No.: ____________________
Treatment outcome: cured ☐ completed ☐ died ☐
defaulted ☐ failure ☐ transferred out ☐
Date of treatment stopped ____________________
Signature: ____________________ Date : ____________________
Designation: ____________________ Township ____________________

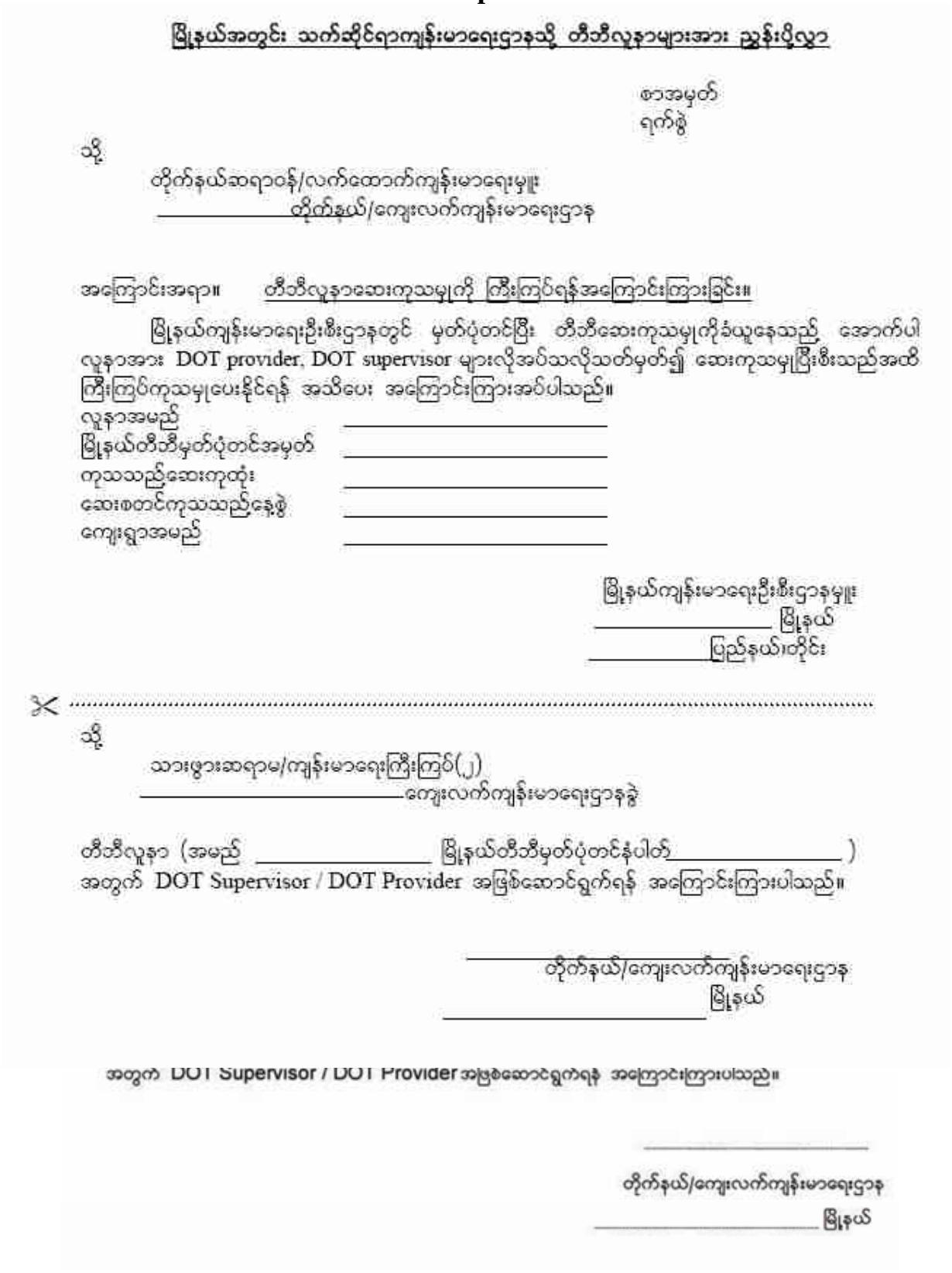
✂ -

Part (C) **Send this back to the Referring Unit as soon as patient has reported and been registered.**

Name of patient: ____________________ Age: ________ Sex: ________
In patient No: / Out patient No: / Township TB No: of referred patient: ____________________
Date referred/transferred: ____________________
Township TB No. given: ____________________
Signature: ____________________ Date: ____________________
Designation: ____________________ Township ____________________

Annex 1.19

Inform letter to health centres from TMO for DOTS Provision/Supervision



မြို့နယ်အတွင်း သက်ဆိုင်ရာကျန်းမာရေးဌာနသို့ တီဘီလူနာများအား ညွှန်းပို့လွှာ

စာအမှတ်
ရက်စွဲ

သို့
တိုက်နယ်ဆရာဝန်/လက်ထောက်ကျန်းမာရေးမှူး
_____တိုက်နယ်/ကျေးလက်ကျန်းမာရေးဌာန

အကြောင်းအရာ။ တီဘီလူနာဆေးကုသမှုကို ကြီးကြပ်ရန်အကြောင်းကြားခြင်း။

မြို့နယ်ကျန်းမာရေးဦးစီးဌာနတွင် မှတ်ပုံတင်ပြီး တီဘီဆေးကုသမှုကိုခံယူနေသည့် အောက်ပါ လူနာအား DOT provider, DOT supervisor များလိုအပ်သလိုသတ်မှတ်၍ ဆေးကုသမှုပြီးစီးသည်အထိ ကြီးကြပ်ကုသမှုပေးနိုင်ရန် အသိပေး အကြောင်းကြားအပ်ပါသည်။

လူနာအမည် _____
မြို့နယ်တီဘီမှတ်ပုံတင်အမှတ် _____
ကုသသည့်ဆေးကုထုံး _____
ဆေးစတင်ကုသသည့်နေ့စွဲ _____
ကျေးရွာအမည် _____

မြို့နယ်ကျန်းမာရေးဦးစီးဌာနမှူး
_____ မြို့နယ်
_____ပြည်နယ်/တိုင်း

✂ .....

သို့
သားဖွားဆရာမ/ကျန်းမာရေးကြီးကြပ်(၂)
_____ကျေးလက်ကျန်းမာရေးဌာနခွဲ

တီဘီလူနာ (အမည် _____ မြို့နယ်တီဘီမှတ်ပုံတင်နံပါတ်_____)
အတွက် DOT Supervisor / DOT Provider အဖြစ်ဆောင်ရွက်ရန် အကြောင်းကြားပါသည်။

_____
တိုက်နယ်/ကျေးလက်ကျန်းမာရေးဌာန
_____ မြို့နယ်

အတွက် DOT Supervisor / DOT Provider အဖြစ်ဆောင်ရွက်ရန် အကြောင်းကြားပါသည်။

_____
တိုက်နယ်/ကျေးလက်ကျန်းမာရေးဌာန
_____ မြို့နယ်

Annex 1.20

Township Tuberculosis Patient Transfer in / Out Register

Transferred out TB patient register

S.No.	Date	Name	Township TB registration no.	Transferred out township and address	Receiving of Part C and township TB registration no. in the new township	Receiving of Part B and final treatment outcome

Transferred in TB patients register

S.No.	Date	Name	Transferred township and township TB registration no.	Township TB registration no.	Sent Part C	Date of sending Part C	Treatment outcome, Part B send /not

Annex 1.21

Township TB Sub-register for Station Hospitals and RHCs

Date of Registra -tion	Township TB No	Name (In Full)	Age	Sex M/F	Address (In Full)	Name of Treatment Unit, Referred from	Date Start Treatment and Regimen	Disease Classifi- cation P/EP and CXR finding	Type of Patient					
									New (N)	Relapse (R)	Failure (F)	Treatment After Default (D)	Transfe r In (T)	Other (O)
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								
						HS PP C								

Sputum Examination (M. Indicate Months Of Treatment Upper Space – Result, Lower Space - Lab: No)				Culture DST (Result Date, Lab. No)	HIV care		Date Treatment Stopped						Remarks (cause of death, transferred township, community support)
Pre: Treatment Smear	End of 2nd M (New) 3rd (Retr) Smear	5th M Smear	6th.M (New) 8th M (Retr) Smear		VCCT result and Date	CPT ART	1 Cured	2 Treatment Completed	3 Died	4 Failure	5 Defaulted	6 Transfer-red Out	

Annex 1.22

Monthly Initial Home Visits and Contact Tracing Report from township

_____ Township, _____ State/Region, _____ Month, _____ Year

S. N.	Items	No.
1	Total No. of registered TB patients for the reporting month	
2	Total No. of DOT supervisor conducted home visit	
3	Total No. of TB patients had been visited	
	3.1. Pulmonary sputum smear positive	
	3.2. Pulmonary sputum smear negative	
	3.3. Extra-pulmonary	
	3.4. Primary complex	
4	Total No. of contacts identified (Household members)	
5	Total No. of contacts evaluated (asked cough > 2 weeks)	
6	Total No. of TB suspects	
7	Total No. of TB suspects examined for sputum for AFB	
8.	Total No. of contacts put on anti-TB treatment (Sum of below)	
	8.1. Pulmonary sputum smear positive	
	8.2. Pulmonary sputum smear negative	
	8.3. Extra-pulmonary TB	
	8.4. Primary complex	

Signature of TMO _____

Date _____

Annex 1.23

Initial Home Visit and contact tracing monthly report of BHS

Date: ----------

BHS Name ---------- Designation ---------- UHC/SHC/RHC/MCH ---------- Sub-centre ----------

Sr. No	Date of visit	Tsp TB reg. No (Yes/No)	Name of patients	Address of patients	Type of TB (P) (EP) (PC)	Sputum result (+/Neg)	No of contacts identified (household member)	No of contacts evaluated (ask cough > 2 wk)	No of TB suspect	No of TB suspect examined sputum for AFB	No of contacts put on anti-TB treatment			
											S(+)	S (neg)	EP	PC
Total														

Signature ----------

Annex 1.24

Reporting format for BHS on home visit at the end of initial intensive phase for smear positive TB patients

• ••••• ••••••••• •••••• • ••••••• •home visit at the end of initial intensive phase

• ••• ••••••

• ••••• ••••••••• ••• • •• •••••••••••••• ••••••••••••••

• ••••••••••••••••••• ••••••••••••••••••••••••••••••

•••	• • • • ••••• • •• • •• •••• • • • •• ••	••••• • • • ••• •	• •• • ••• •	• •••	•• ••• •• • • • •• ••	**Sputum conversion •••**

• • •• ••••••••••••••

Monthly report on home visit at the end of initial intensive phase for smear positive TB patients to send to Region/ State levels

_____ Region / State, _____ Township, Month/Year _____

SN	Items	Number
1	Total number of **home visit** at the end of initial phase for positive patients for the reporting month	
2	Total number of sputum converted patients among above patients	

Signature of TMO _____

Annex 1.25

Report for advocacy meeting at township level

Region / State_____ **Township** _____

For Year _____**, Month** _____

S.N.	Date	Place	Target group	No. of attendees

Signature _____

TMO _____

Township _____

Date _____

Annex 1.26

Monthly report for health education activities at township level

Region / State_____ Township _____

For Year _____, Month _____

S.N.	Date of activity conducted	Name of educator	At which Health Center (SHU, RHC)	Name of Ward/ Village	No. of attendees	Signature of Educator

Signature _____

TMO _____

Township _____

Date _____

Annex 1.27

Referral Form for private practitioners / Feed – back Form to private practitioners

Referral form for private practitioners to TB Centre

Date ____/____/_____

Name of patient _____ Age _____Sex _____

Address of patient (Temporary) _____

(Permanent)_____

Referred private practitioner's Name _____Sama _____ Signature_____

Name of clinic _____

Address of clinic _____

Telephone No: _____

Annex 1.28

Feed-back Form to private practitioners from TB Centre

Feed-back to private practitioner

To

Thank you for your referral, _____, age _____, referred on ____/____/_____. Sputum for AFB of that patient was positive / negative and CXR revealed _____, diagnosed as -

(1) Chest infection / COPD / Ca lung / _____, referred back to you for further needful management.

(2) Pulmonary TB/Extra pulmonary TB. NTP will take care for anti TB treatment. ☐

You will take care of anti TB treatment. ☐

The following regimen

Cat I ☐ (2HRZE/4HR)

Cat II ☐ (2HRZES/HRZE/5HRE)

Cat III ☐ (2HRZE/4HR)

Cat III ☐ (2HRZ/4HR) paediatric formula will be given.

Seal

TB Coordinator _____

Township _____

Telephone No: _____

Date ____/____/_____

Annex 1.29

Quarterly Report on TB case registration
Public- Public Mix DOTS (Option 3)

Name of hospital---------- State/Region ---------- Name of TB coordinator ----------	Patients registered during ---------- quarter of ----------	Date of completion of this form : ----------

All registered patients in the quarter

Total No. of TB patients registered for treatment (Option 3)	Total No. of TB patients referred to township TB center after discharge	Total No. of hospital in-patients on TB treatment (Still in hospital)	Total No. of referral drop out to township TB centre	Remarks

Enrollment according to the treatment regimen

Cat I				Cat II					Cat III			Grand total
Severe form									Less severe form			
Sputum smear positive	Smear negative	EP	Total	Relapse	Treat - ment after default	Treat - ment after failure	Other	Total	Smear negative	EP	Total	

Case Finding and follow up sputum examination

	No of patients	No. of slides
a. No. of suspects (Dx) examined by microscopy for case finding		
b. No. of smear positive patients detected out of suspects (Dx)		

Annex 1.30

Quarterly Drug Balance Report Form (Option-3)

Name of hospital ---------- State/Region ---------- Name of TB coordinator ----------	Patients registered during ----- quarter of ----------	Date of completion of this form : ----------

Drug Stock (In tab or cap or vial) (Main stock & sub stock)

Item		4 FDC	2 FDC	ETB 400mg	Injection streptomycin 1 G	Distilled Water	Disposable syringe	Paediatric HRZ	Paediatric HR
1. Opening balance									
2. Received during quarter									
3. Issued during quarter									
4. Closing balance									
Expiry Date									
One month issued									
Drugs in hand (in month)									

Countersigned by ----------
Name ----------
Designation ----------

Signature ----------
Name ----------
Designation ----------

Annex 1.31

Option (3)

Drug Order form of ---------- for -------Quarter

Fix dose combination, daily course **Date: ----------**

Enter the number of case enrolled in the previous three months (Quarter) (From the Quarterly Report on case finding)

Item	Category I			Category II			Category III			Total
	Case	Factor	Total (A)	Case	Factor	Total(B)	Case	Factor	Total(C)	A+B+C=D
HRZE (4FDC)		84			84			84		
HR (2FDC)		84			84			84		
Ethambutol 400mg					56					
Inj: streptomycin					28					
Syringe & Needle					28					
Water for injection					28					
Paediatric HRZ								84		
Paediatric HR								84		

	A/U Running Requirement	Reserve requirement	Currently in Stock G	Expiry date	Total order
Item	E (= D from above)	F (= E * 20%)			E + F – G = ( )
HRZE (4FDC)					
HR (2FDC)					
Ethambutol 400mg					
Inj: streptomycin					
Syringe & Needle					
Water for injection					
Paediatric HRZ					
Paediatric HR					

NB. Factors are calculated for 40-54 kgm and above patient and for (28) days.

Checked by Signature ----------

Designation ----------

Annex 1.32

Quarterly Drug Balance Report Form (Option-4)

Name of hospital ---------- State/Region ---------- Name of TB coordinator ----------	Patients registered during ----- quarter of ----------	Date of completion of this form : ----------

Drug Stock (In tab or cap or vial) (Main stock & sub stock)

Item		4 FDC	2 FDC	ETB 400mg	Inj: streptomycin 1 G	Distilled Water	Disposable syringe	Paediatric HRZ	Paediatric HR
1. Opening balance									
2. Received during quarter									
3.Issued during quarter									
4. Closing balance									
Expiry Date									
One month issued									
Drugs in hand (in month)									

Countersigned by ----------
Name ----------

Signature ----------
Name ----------

Annex 1.33

Option (4)

Drug Order form of ---------- for -------Quarter

Fix dose combination, daily course **Date: ----------**

Enter the number of case enrolled in the previous three months (Quarter) (From the Quarterly Report on case finding)

Item	Category I			Category II			Category III			Total
	Case	Factor	Total(A)	Case	Factor	Total(B)	Case	Factor	Total(C)	A+B+C=D
HRZE (4FDC)		168			252					
HR (2FDC)		336			420					
Ethambutol 400mg					280					
Inj: streptomycin					56					
Syringe & Needle					56					
Water for injection					56					
Paediatric HRZ								168		
Paediatric HR								336		

	A/U Running Requirement	Reserve requirement	Currently in Stock G	Expiry date	Total order
Item	E (= D from above)	F (= E * 20%)			E + F – G = ( )
HRZE (4FDC)					
HR (2FDC)					
Ethambutol 400mg					
Inj: streptomycin					
Syringe & Needle					
Water for injection					
Paediatric HRZ					
Paediatric HR					

NB. Factors are calculated for 40-54 kgm and above patient and for (28) days.

Countersigned by ---------- Signature ----------

Designation ---------- Designation ----------

Annex 1.34

National TB Programme, EQA Form

Smear Slide Reading by microscopy Center Form (1)

Microscopy Center : _____ Year : _____

Month	1	2	3	1st Qtr	4	5	6	2nd Qtr	7	8	9	3rd Qtr	10	11	12	4th Qtr	Annual
Slide no. for QA																	
(-) by Mx																	
(+) by Mx																	
Correct																	
HF (+)																	
HF (-)																	
LF (+)																	
LF (-)																	
QE																	
Total * n **Error** %																	

HF (+) = High False Positive = Major Error

HF (-) = High False Negative = Major Error

LF (+) = Low False Positive = Minor Error

LF (-) = Low False Negative = Minor Error

QE = Quantification Error = Minor Error

* Total error = Major error + Minor error

Annex 1.35

Smear Slide Preparation by Microscopy Center

Form (2)

Microscopy Center :

Year

Month			1	2	3	1st Qtr	4	5	6	2nd Qtr	7	8	9	3rd Qtr	10	11	12	4th Qtr	Annual
Slide no. for QA		n																	
		%																	
Specimen Quality	**Good**	**n**																	
		%																	
	Poor																		
Staining	**Good**	**n**																	
		%																	
	O																		
	U																		
Cleanness	**Good**	**n**																	
		%																	
	Poor																		
Thickness	**Good**	**n**																	
		%																	
	Tk																		
	Tn																		
Size	**Good**	**n**																	
		%																	
	S																		
	B																		
Evenness	**Good**	**n**																	
		%																	
	Poor																		

O : Over decolourization
U : Under decolourization

Tk : too thick
Tn : too thin

S : too small
B : too big

Annex 1.36

Smear Slide Reading

Form (3)

National Tuberculosis Programme, NTRL

State/ Region : **Month/ Quarter/ Year :**

	Microscopy Center	Slide for QA	Major Error		Minor Error			Major error		No. of Slides discussed
			HF(+)	HF(-)	LF(+)	LF(-)	QE	(n)	(%)	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
	Total									

HF (+) = High False Positive = Major Error LF (+) = Low False Positive = Minor Error
HF (-) = High False Negative = Major Error LF (-) = Low False Negative = Minor Error
QE = Quantification Error = Minor Error

Annex 1.37

National Tuberculosis Programme NTRL

Form (4)

Smear Slide Preparation

State/ Region **Month/ Quarter/ Year :**

Microscopy Center		Slide for QA		Specimen Qty		Staining			Cleanness		Thickness			Size			Evenness	
				Good	Poor	Good	O	U	Good	Poor	Good	Tk	Tn	Good	S	B	Good	Poor
1			n															
			%															
2			n															
			%															
3			n															
			%															
4			n															
			%															
5			n															
			%															
6			n															
			%															
7			n															
			%															
8			n															
			%															
9			n															
			%															
10			n															
			%															
	Total		n															
			%															

O : Over decolourization
U : Under decolourization

Tk : too thick
Tn : too thin

S : too small
B : too big

Annex 1.38

Form A-1

Quality Control Work Sheet for Sputum Smear Examination
National Tuberculosis Programme, Myanmar

Microscopy Center: ---------- District: ----------
Month: ---------- Year : ----------

Sr. No.	Slide No.	AFB result by		Specimen Quality		Staining		Cleanliness		Smear Size		Thickness		Evenness	
		Msp	Con	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															
13.															
14.															
15.															
16.															
17.															
18.															
19.															
20.															

(note)
Msp = Microscopist Con = Controller Gd = Good Pr = Poor B = Too big S = Too small
Tk =Too thick Tn = Too thin O = Over decolourization U = Under decolourization

Date:_____ Analyzed by (with signature):_____

Annex 1.39

Form A -2

Quality Control Work Sheet for Sputum Smear Examination
National Tuberculosis Programme, Myanmar

Microscopy Center: _____ District:_____
Month:_____ Year :_____

Sr. No.	Slide No.	AFB result by		Specimen Quality		Staining		Cleanliness		Smear Size		Thickness		Evenness	
		Msp	Con	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr	Gd	Pr
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															
13.															
14.															
15.															
16.															
17.															
18.															
19.															
20.															

(note) Msp = Microscopist Con=Controller Gd=Good Pr=Poor B= Too big S= Too small
Tk= Too thick Tn= Too thin O=Over decolourization U= Under decolourization

Comments / Suggestions by controller

Date:_____ Analyzed by(with signature):_____

Annex 1.40

Form B

National Tuberculosis Programme, Myanmar
Feed back sheet

Microscopy Center: _____ Month/Quarter/Year: _____

Smear Reading

Result by Controller	Result by Microscopist					Total
	Neg	1-9 AFB/100f	1+	2+	3+	
Neg		LF (+)	HF (+)	HF (+)	HF (+)	
1-9 AFB/100f	LF (-)			QE	QE	
1+	HF (-)				QE	
2+	HF (-)	QE				
3+	HF (-)	QE	QE			
Total						

Classification of errors		Number	No. of slide discussed
Major Error	HF (+)		
	HF (-)		
Minor Error	LF (-)		
	LF (+)		
	QE		
Total No. of errors			

Smear Preparation (Total number of slides rechecked =)

	Good		**Poor**		
	no.	%	no.	%	
Specimen Quality					
Staining					O (%) U (%)
Cleanliness					
Thickness					Tk (%) Tn (%)
Size					S (%) B (%)
Evenness					

Good = acceptable, O = Over decolourisation U = Under decolourisation
Tk = too thick Tn = too thin S = too small B = too big

Comments for improvement:

Date report submitted Report by

Annex 1.41

National TB Reference Laboratory **Form 1**
National TB Control Programme
Requisition form for Culture and Drug Susceptibility Testing of TB

Referring Unit _____ Date_____

Name of patient_____ Age_____ (years) Sex; M ☐ F ☐

Complete patient's address _____

Test requested; ☐ Sputum Microscopy ☐ Culture ☐ Drug Susceptibility Testing (DST)

Reason for Sputum Microscopy ☐ Diagnosis ☐ Follow up at _____ month of treatment

TB registration No for Follow up patient _____

Type of patient for culture and DST ☐ New ☐ Previously treated

Name and signature of person requesting examination_____

Laboratory Results (to be completed in laboratory)

Lab serial No:_____ Date received _____ Date processed_____

Microscopy results

Lab serial No.	Specimen	Result (mark one)				
		Negative	1-9 AFB	1+	2+	3+
	1					
	2					

Culture results*

Lab serial No.	Specimen	Result (mark one)				
		Negative	1-9 AFB	1+	2+	3+

***Positive** = Culture for TB is positive, ***Negative** = Culture for TB is negative ***Contamination** = Culture got contaminated and can not be deduced

Line Probe Assay

Lab serial No	.Drug	Result (mark one)	
		Mutation (Resistant)	No Mutation (Susceptible)
	Isoniazid		
	Rifampicin		

Drug Susceptibility Test

Method	Lab serial No.	Streptomycin	Isoniazid	Rifampicin	Ethambutol
MGIT					
L J					

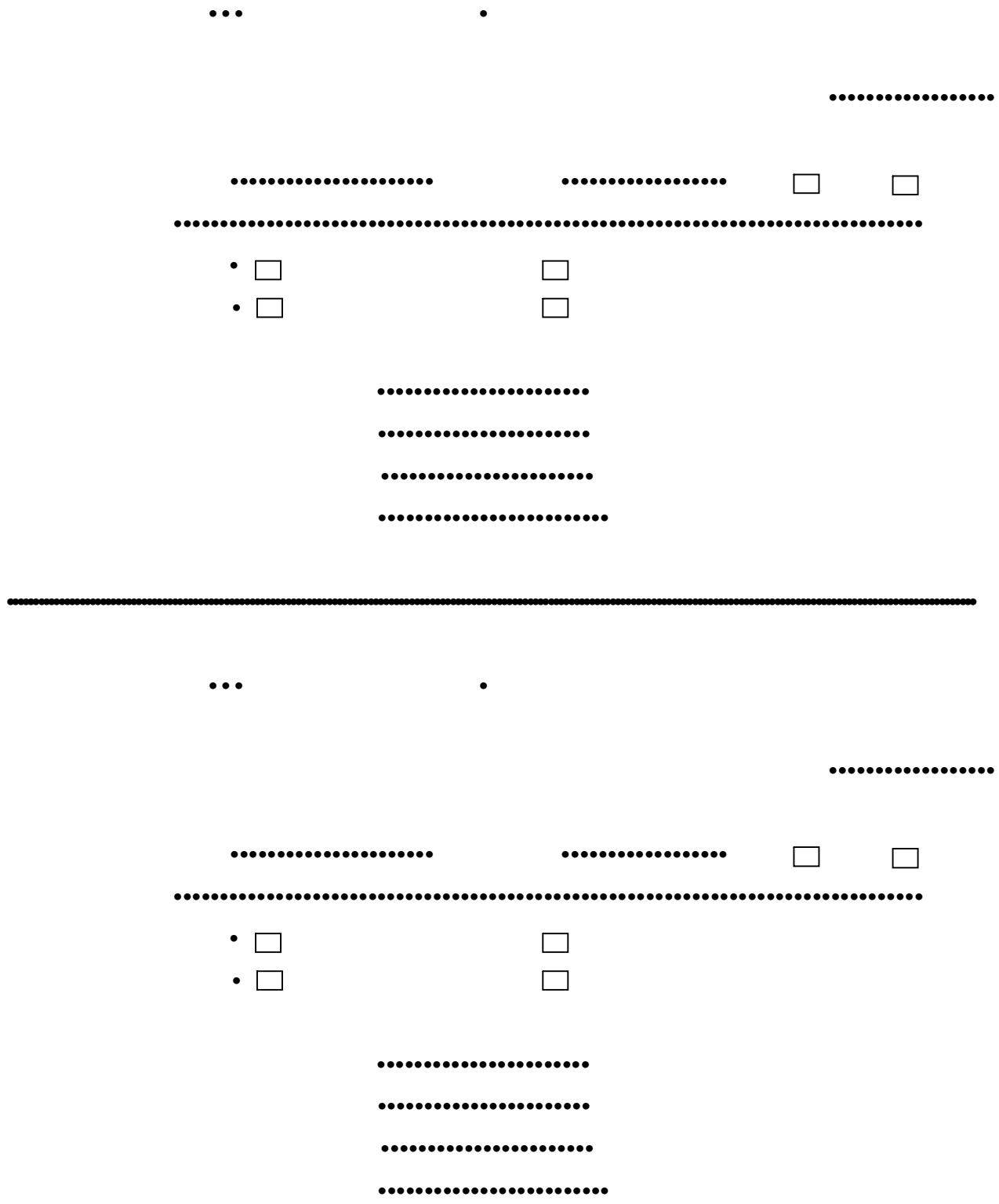
S= susceptible, R= resistant

Conclusion ☐ **MDR** ☐ **Non MDR**

Lab In-charge **Date reported**

Annex 1.42

Community based DOTS activities



Annex 1.43

Community based DOTS activities

Township Community Volunteer Registry

Name of the Township:

Name of TB coordinator/ Focal person:

Name of the Health Center: MCH or SHU or RHC	Name of the Ward/ village	Popula-tion	Name of BHS responsible	Name of the trained community TB volunteers	Name of the NGO	Active, ie. Reporting monthly	Remarks

Annex 1.44

Annex 1.45

Annex 1.46

Annex 1.47

				J	F	M	A	M	J	J	A	S	O	N	D								

	•			J	F	M	A	M	J	J	A	S	O	N	D	
			• ••													

Annex 1.48

…….	…….
……	……
……	……
……	……
……	……
……	……

Annex 1.49

NATIONAL TUBERCULOSIS PROGRAMME

MDR-TB Treatment Card

Name: ----------

Sex: ☐ M ☐ F

Age: ---------- Date of birth: ------/--------/----------

Initial weight (kg):---------- Height (cm): ----------

Site: ☐ Pulmonary ☐ Extra-pulmonary ☐ both

If extra-pulmonary, specific site: ----------

Review panel meetings: specific site: ----------

MDR TB registration number: ----------

Date of registration: --------/--------/--------

Township TB number:

Date of township TB registration: ------/--------/---------

Address: ---------- ART= antiretroviral therapy; CPT = co-trimoxazole preventive therapy

District: ----------

Treatment centre: ----------

Name of DOT Provider----------

DOTS-PLUS Supervisor: ----------

Registration group	Select one only
Cat I	
Cat II TAD	
Cat II Relapse	
Cat II TAF	
Cat II F	
Other (previously treated without known outcome status)	

HIV information	
HIV testing done: ☐ Y ☐ N ☐ unknown	
Date of test ------/-------/-------	Results:
Started on ART: ☐ Y ☐ N	Date -----/-----/------
Started on CPT: ☐ Y ☐ N	Date -----/-----/------

Previous tuberculosis treatment episodes

Previous Township TB No./township	Start date (if unknown, put year)	Regimen (in drug abbreviations)	Outcome

Used second-line drugs previously? ☐ Yes ☐ No

If yes, specify: ----------

Drug abbreviations

First-line drugs

H= Isoniazid
R= Rifampicin
E= Ethambutol
Z= Pyrazinamide
S= Streptomycin
(Th= Thioacetazone)

Second-line drugs

Am= amikacin
Km= Kanamycin
Cm= Capreomycin
Cfx= Ciprofloxacin
Ofx= Ofloxacin
Lfx= Levofloxacin
Mfx= Moxifloxacin
Gfx= Gatifloxacin
Pto= Protionamide
Eto= Ethionamide
Cs= Cycloserine
PAS= P-aminosalicylic acid

Date	Decision	Next date

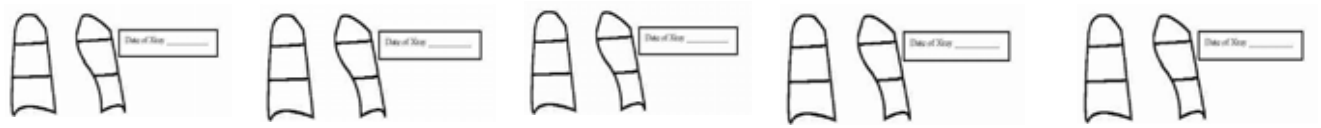
Month #	Sputum Smear Microscopy			Culture			Urea & electro lytes	Serum Creati nine	LFT	CP	Serum Uric Acid	TSH	ECG		
	Date	Sample No.	Grading	Date	Sample No.	Grading									
Diagnosis															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															

Drug susceptibility testing (DST) results

Date	S	H	R	E

R = resistant S= susceptible C = contaminated

CXR results



MDR TB REGIMEN (date treatment started and dosage (mg), frequency of dose, change of dosage, and cessation of drugs):

Date	H	R	Z	E	S	Km	Am	Cm	FQ	Pto/Eto	Cs	PAS	Other	Comments

(od = Once a day, bd = 12 hourly: morning and evening doses)

ADMINISTRATION OF DRUGS (one line per month):

	Days																													
Month	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**Weight (kg)**

Mark in the boxes: • = directly observed
x = not supervised
0 = drugs not taken

ADMINSTRATION OF DRUGS (continued):

Days

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Weight (kg)

Mark in the boxes: 0 = directly observed
N = not supervised
Ø = drugs not taken

Outcome	Mark one	Date
Cured		
Completed		
Died		
Defaulted		
Transferred out		
Failed: Bacteriologically positive		
Failed: Treatment stop due to adverse reaction		
Failed: Treatment stop due to other reasons		

Comments -- ----------

Annex 1.50

MDR-TB Register

(FORM 02)

Serial No	Name (in full)	Sex M or F	Age Date of birth d / m / y	Address	Previous Township TB No. ---------- Type of TB	MDR-TB Register Number --------- Date of registration	Registration group*	**Result of drug susceptibility testing (DST) (Enter the DST that resulted in the patient being registered as a DR TB patient. If the DST is pending it should be filled in when the results are known. See treatment card for full history of DST data) R = resistant S = susceptible C = contaminated**										Date sample taken for DST
								R	H	E	S	Km	Cm	Fq	pto/Eto	Other	Other	Other	
1																			
			/ /																
2																			
			/ /																
3																			
			/ /																
4																			
			/ /																
5																			
			/ /																
6																			
			/ /																
7																			
			/ /																
8																			
			/ /																
9																			
			/ /																
10																			
			/ /																

MDR-TB treatment	Start of treatment month 0		Month 1		Month 2		Month 3		Month 6		Month 7		Month 8		Month 9		Month 10		Month 11		Month 12		Month 13		Month 14	
Regimen (in drug initials) Date starteD	S	C	S	C	S	C	S	C	S	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S
	D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y	
Date																										
Date																										
Date																										
Date																										
Date																										
Date																										
Date																										
Date																										
Date																										
Date																										

Smear (S) and culture (C) results during treatment (If more than one smear or culture done in a month, enter the most recent positive result)																																							
Month 15		Month 16		Month 17		Month 18		Month 19		Month 20		Month 21		Month 22		Month 23		Month 24		Month 25		Month 26		Month 27		Month 28		Month 29		Month 30		Month 31		Month 32		Month 33		Month 34	
S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	C	S	S	C	S	C	C
D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y		D/M/Y	

Outcome Cured, Completed Failed, Died,Defaulted Transferred out	TB/HIV activities					Comments
	HIV Testing					
Date outcome given	Test done (Y/N/Unknown)	Date of test	Result	ART Y/N start Date	CPT Y/N start Date	

Drug abbreviations

First-line drugs

H= Isoniazid
R= Rifampicin
E= Ethambutol
Z= Pyrazinamide
S= Streptomycin
(Th= Thioacetazone)

Second-line drugs

Am= amikacin
Km= Kanamycin
Cm= Capreomycin
Cfx= Ciprofloxacin
Ofx= Ofloxacin
Lfx= Levofloxacin
Mfx= Moxifloxacin

Gfx= Gatifloxacin
Pto= Protionamide
Eto= Ethionamide
Cs= Cycloserine
PAS= P- aminosalicylic acid

Annex 1.51

NATIONAL TUBERCULOSIS PROGRAMME

Patient Identity Card (Form 03)

MDR-TB Reg. No. _____

MDR-TB Treatment into _____

Name : _____

Address : _____

Sex: M ☐ F ☐ Age: _____ Date of birth : / /

Township TB unit: _____

Health unit : _____

Disease classification

Pulmonary ☐ Ex-pulmonary ☐ Both ☐

Site: _____

Date treatment started

_____

Registration groups

Cat II Relapse	☐	Cat II F	☐
Cat II TAD	☐	Cat I	☐
Cat II TAF	☐	Other (Specify)	☐

Treatment	Intensive Phase	Continuation Phase

Change in treatment	Intensive Phase	Continuation Phase

Allergies: _____

Severe adverse reactions: _____

Remarks _____

Appointment dates

_____

_____

_____

_____

_____

_____

_____

_____

REMEMBER

1. Take care of your card.
2. You can be cured if you follow your treatment regimen by taking your prescribed drugs regularly.
3. Tuberculosis can spread to other people if you do not take your medication.
4. Report any side effects to your DOT provider at once.
5. Remember to report to the health facility on appointment date given to you.

Annex 1.52

NATIONAL TUBERCULOSIS PROGRAMME
Lab. Requisition form for culture and DST (Form 04)

Request for the Lab. requisition form for culture and DST (to be filled by treatment center)
Treatment unit _____ Date _____
Patient name: _____
Type of patient ☐ Cat II Relapse ☐ Cat II TAD ☐ Cat II TAF ☐ Cat II F ☐ Other (Specify)
☐ Cat I
Age : _____ Date of birth: _____ Sex M ☐ F ☐
Address (in full) _____

Reason for examination (Mark one): Diagnosis ☐ follow-up examination ☐

month of treatment taken _____

Test request : Smear ☐ Culture ☐ DST ☐ S ☐ R ☐ H ☐ E ☐ Other _____ ☐

Signature of the person requesting examination: _____

Results (to be completed in laboratory)

Smear results

Date collected	Specimen	Lab. specimen No.	Appearance*	Result (Mark one) Neg.	1-9	+	++	+++

*Visual appearance of sputum (blood stained, mucopurulent, saliva)

AFB	0
AFB per 100 HPF	nty (and report number of AFB)
99 AFB per 100 HPF	+
) AFB per HPF	++
AFB per HPF	+++

Examined by (signature) _____ Date _____

Culture results

Date collected	Specimen	Lab. specimen No.	Result (Mark one) Neg.	1-9	+	++	+++	Contaminated

growth reported	0
er than 10 colonies	ort number of colonies
00 colonies	+
e than 100 colonies	++
merable or confluent growth	+++

Examined by (signature) _____ Date _____

DST results

Date taken	Lab. specimen no.	S	H	R	E
	1				
	2				

R = resistant, S = susceptible, C = contaminated
Examined by (signature) _____ Date _____

Annex 1.53

NATIONAL TUBERCULOSIS PROGRAMME
Laboratory Register for Culture and DST **(Form 05)**

S. N.	Date	Name	Age/ Sex	Township TB No.	Type of patients	Smear result	Type of speci-men	Culture No.	Culture result (Week)									Date recorded	Remark
									1	2	3	4	5	6	7	8	Final result		

Annex 1.54

Drug Resistant Testing

Dilution	Control	S	I	R	E	Result				Report given	Remarks
						S	I	R	E		
S1											
S2											
S3											
S4											
S1											
S2											
S3											
S4											
S1											
S2											
S3											
S4											
S1											
S2											
S3											
S4											
S1											
S2											
S3											
S4											
S1											
S2											
S3											
S4											

Annex 1.55

DR-TB Suspect Register (Form 06)

Sr. No.	Name	Sex / Age	Address	Township TB No.	Name of treatment center	Date specimen collected	Culture result*	DST results for culture + specimens				Remarks**
								S	H	R	E	

* Outcome of culture reported as follows:

No growth reported	0
Fewer than 10 colonies	Report number of colonies
10-100 colonies	+
More than 100 colonies	++
Innumerable or confluent growth	+++

** Specify if the patient is enrolled in the DOTS-PLUS pilot project

Annex 1.56

National TB Programme **Quarterly report on MDR-TB case detection (To be filled out 1 quarter after)** **(Form 07)**

MDR TB treatment Unit ----------
MDR TB Reg. No ----------
Name of MDR-TB treatment site ----------

Patient registered in the MDR TB Register during ---------- quarter of year ----------
Date of completing this form: ----------

Signature: ----------

Block 1: registered in MDR TB Register and started on MDR-TB treatment

Patients	Confirmed MDR-TB	Other
Registered in MDR TB diagnostic group		
Started on MDR TB treatment during the quarter		

Block 2: Confirmed MDR-TB registered during the quarter

Pulmonary					Other*	Total
New	Previously treated					
	Cat II TAR	Cat II TAD	Cat II TAF	Cat II F		

***** Other cases include previously treated pulmonary patients without known outcome status, and all previously treated extra-pulmonary TB patients.

Annex 1.57

National TB Programme **Six-month interim outcome assessment** **(Form 08)**

(to be filled out 9 months after treatment initiation)

MDR TB treatment Unit ----------
MDR TB Reg. No ----------
Name of MDR TB treatment site ----------

Patient registered in MDR TB Register
during ---------- quarter of year ----------
Date of completing this form: ----------

Signature: ----------

	Number started on treatment in the quarter	Smear and culture results at 6 months of treatment (of patient still on treatment)									No longer on treatment			
		Smear negative			Smear positive			Smear unknown			Died	Defaulted	Transferred out	Treatment stopped due to adverse reaction
		Culture negative	Culture positive	Culture unknown	Culture negative	Culture positive	Culture unknown	Culture negative	Culture positive	Culture unknown				
MDR-TB cases														

Annex 1.58

NATIONAL TUBERCULOSIS PROGRAMME

(Form 09)

MDR-TB treatment 12 month culture conversion Report
(To be filled out 15 months later)

Name of MDR-TB treatment site and state: _____

Patients registered in the MDR-TB register during Quarter _____ of Year _____

Date of completion of the report: _____

MDR-TB treatment site coordinator: _____

Signature: _____

	Number started on treatment	Smear and culture results at 6 months of treatment (of patient still on treatment)									No longer on treatment			
		Smear negative			Smear positive			Smear unknown			Died	Defaulted	Transferred out	Treatment stopped due to adverse reaction
		Culture negative	Culture positive	Culture unknown	Culture negative	Culture positive	Culture unknown	Culture negative	Culture positive	Culture unknown				
MDR-TB cases														

Annex 1.59

NATIONAL TUBERCULOSIS PROGRAMME
ANNUAL REPORT OF TREATMENT OUTCOME OF MDR-TB REGIMENS (Form 10)
(To be filled in 24 and 36 months after the closing date of year of treatment)

Name of MDR-TB treatment site and state: _____ Date of completion of the report: _____

Patients registered in the MDR-TB register during Quarter _____ of Year _____

MDR-TB treatment site coordinator: _____Signature: _____

Block 1 and 2 are for all patients who enter MDR-TB register

Block 1: Patients by smear and culture result at initiation of MDR-TB treatment (all patients)

	Cured	Treatment completed	Failed	Defaulted	Died	Transferred out	Still on treatment	Total
S+C+								
S-C+								
Total								

S= smear, C= culture

Block 2: Patients by registration category (for all patients entering MDR-TB register)

Registration group	Cured	Treatment completed	Failed	Defaulted	Died	Transferred out	Still on treatment	Total
Cat I								
Cat II TAD								
Cat II Relapse								
Cat II TAF								
Cat II F								
Other								
Total								

Year of cohort of treatment: _____

Block 3 and 4 are for MDR-TB patients only

Block 3: Patients by smear and culture result at initiation of MDR-TB treatment (for patients with documented MDR-TB)

	Cured	Treatment completed	Failed	Defaulted	Died	Transferred out	Still on treatment	Total
S+C+								
S-C+								
Total								

S= smear, C= culture

Block 4: Patients by registration category (for patients with documented MDR-TB)

Registration group	Cured	Treatment completed	Failed	Defaulted	Died	Transferred out	Still on treatment	Total
Cat I								
Cat II TAD								
Cat II Relapse								
Cat II TAF								
Cat II F								
Other								
Total								

Annex 1.60

NATIONAL TUBERCULOSIS PROGRAMME
Quarterly Laboratory MDR-TB Report **(Form 11)**

Date of reporting: _____ Quarter reported: _____ of year _____
Laboratory name: _____
Laboratory technician name _____
No. of DR-TB suspect investigated with culture _____
No. of DR-TB suspects with culture positive investigated with DST _____

DR patterns reported:

No. DR-TB suspects investigated with DST		**Mono resistant**				**Poly resistant**	**MDR**
		H	**S**	**R**	**E**	**Specify the type of resistance**	
Cat I sputum non converter after initial treatment							
Cat I failure							
Cat II TAD							
Cat II TAF							
Cat II Relapse							
Cat II F							
Other (Specify)							
Total							

Annex 1.61

NATIONAL TUBERCULOSIS PROGRAMME

Patients name_____
MDR TB number_____

from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						
from..../.... to..../....						

Annex 1.62

[illegible] [illegible]

Patients name____________________ Register number____________________

month_____year____

#	drugs	dose/form	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		300/inj.																															
		750/tab.																															

month_____year____

#	drugs	dose/form	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		300/inj.																															
		750/tab.																															

month_____year____

#	drugs	dose/form	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		300/inj.																															
		750/tab.																															

Annex 1.63

NATIONAL TUBERCULOSIS PROGRAMME

PATIENT'S INFORMED CONSENT FOR TREATMENT FORM (Form 14)

Patient:

I (Name of patient) _____ fully understand that treatment of this form of Tuberculosis require me to take the medicines provided daily for the next 24 months without interruption. If I do not take these medicines daily I am putting my own health at risk and I may spread this form of TB to my family and neighbors. I am committed to take these drugs for the full period at this Regimen_____/_____ for the next 24 months. If I default from this treatment I understand that I will not be able to get further treatment. I also understand that the MDR-TB treatment has some serious side effect.

(If patient is pregnant this treatment has some serious side effect on pregnancy)

Signature ----------
Name ----------
Date ---------- Age ----------
Address ----------

MS/DTO/TMO:

I (Name of MS/DTO/TMO) _____ have explained the importance and difficulties of taking these medicines to (DOTS-Plus Provider)_____ and I will do my best to support (Patient) _____ in completing a full course of treatment and getting cured.

Signature ----------
Name ----------
Date ---------- Designation ----------

DOT-Plus Provider:

I (Name of DOT-Plus Provider) _____ am committed to support (Name of patient) _____ in taking his/her full course of treatment for 24 months. I will do my best to encourage him/ her to return for treatment if late, and committed to inform the Township TB Center as soon as he is failing to take treatment. I am committed to help looking for solutions to problems which might turn up during treatment.

Signature ----------
Name ----------
Date ---------- Address ----------

Annex 1.64

DOTS-PLUS PROJECT

(Form 15)

MDR-TB Referral Form

(Fill in duplicate. Send one copy to the respective facility receiving the patient, and keep the duplicate copy on file)
Name and address of referring health facility _____
_____
Name of health facility to which the patient is referred_____
_____
Name of patient_____ Age _____ Sex M ☐ F ☐
Complete Address _____
_____

Disease Classification

☐ Pulmonary
☐ Extra pulmonary Site_____
☐ Both

Detail of Treatment

Township and TB Number:
Date of starting treatment

Type of TB Patient

☐ Cat I
☐ Cat II TAD
☐ Cat II Relapse
☐ Cat II TAF
☐ Cat II F
☐ Other

Sputum Culture and DST details

Date of culture collection:
Date of culture result:
Date of DST result
DST result (resistance pattern only)

Details of MDR-TB treatment

MDR- TB number:
Name of DOTS-Plus hospital:
Date of MDR-TB treatment started:
Number of doses taken:

Refer for side effect

- Psychosis ☐
- Depression ☐
- Seizures ☐
- Others _____

Date of referral for MDR-TB treatment Day _____ Month _____ Year 20 _____
Referred for ☐ in- door treatment ☐ Ambulatory treatment ☐ Transfer

Remarks_____
Signature _____ Designation _____

Reminder for the health facility where the patient has been referred: Please send an email to the referring unit, informing the referring doctor of the data that the above-named patient reported at the receiving health facility.

Annex 1.65

Form-16

Quarterly Drug Report for MDR-TB management

Hospital/Township----------

Region----------

Quarter---------- Year----------

Signature----------

Designation----------
Countersigned----------

Designation----------

Annex 1.66

TB-HIV Cross Referral Form

Patient's Name …… Age …… Township ……. Sex ……

Referred from NAP/NTP to NAP/NTP Referral No: ……

Registration No: …….. Date of referral ……..

Reasons for Referral

☐	Diagnosis and Treatment of TB	☐	Cotri prophylaxis
☐	HIV Testing and Counselling (HTC)	☐	IPT intiation
☐	Assessment & Enrollment for ART	☐	CoC
☐	Treatment for Ols	☐	others

Remarks:

Signature
Name
Designation

✂==========

TB-HIV Cross Referral Feedback Form

Patient's Name …….. Age …… Township ……. Sex ……..

Feedback from NAP/NTP to NAP/NTP Referral No: ……

Registration No: …… Date of received …….

Action(s) taken for Referred case

Diagnosis of TB: sputum ex:	☐	CXR	☐	Provide anti TB Started date:	☐
HTC: Testing	☐	Counselling	☐		
Enrolled for ART	☐	started ART	☐	started date:	
Treatment for Ols	☐				
Provide Cotri prophylaxis	☐				
Provide IPT	☐				
others (specify)	☐	Started date:			
others (specify)	☐				

Signature
Name
Designation

Remarks:

Annex 1.67

Quarterly report for TB/HIV collaborative activity

AIDS/STD team **TB team** **Township/District**_____		**Quarter**_____ **Year** _____

Block A: Reporting for AIDS/STD team			
	Number		**Data Source**
Number of PLHIV attended for HIV care during the reporting period	New	Old	HIV Clinic register
Number of PLHIV screened for TB			HIV Clinic register
Number of PLHIV referred for TB diagnostic evaluation			HIV Clinic register or cross referral form
Number of PLHIV diagnosed and registered for TB treatment			Cross referral form feed back from TB clinic
Number of PLHIV who were given IPT in reporting period*			IPT register

Block B: Reporting for TB team					
	Number				**Data Source**
	0-14		= 15		
	M	F	M	F	
Number of TB patients registered during the reporting period					Township TB register
Number of TB patients offered or referred to AIDS/STD team for VCCT					Referral register or cross referral form/ VCCT register used in TBC
Of these patients, number of HIV tested TB patients					Cross referral form feed back from HIV clinic/ VCCT register used in TBC
Of these patients, number of HIV-positive TB patients					Cross referral form feed back from HIV clinic/ VCCT register used in TBC
Number of known HIV-positive before being diagnosed with TB					Patient record book, previous testing result
Number of known HIV-negative before being diagnosed with TB					Patient record book, previous testing result
Cumulative number of HIV-positive TB patients started (or continued) CPT within the TB treatment period(For the targeted year)					Township TB Register
Cumulative number of HIV-positive TB patients started (or continued) ART within the TB treatment period (For the targeted year)					Township TB Register

*only IPT pilot sites

Date_____ Name and Designation _____ Signature_____

Annex 1.68

Monthly VCT Report

Sr	Target group	Sex	< 25 yr			> 25 yr			Referral				Testing only	
			Tested	Post test	(+)ve	Tested	Post test	(+)ve	Self	NGOs	PE	Public sector	Tested	(+) ve
1	Sex worker	M												
		F												
2	MSM													
3	Clients	M												
		F												
4	IDU	M												
		F												
5	Regular partners	M												
		F												
6	Children born from HIV positive mother	M												
		F												
7	Occupational exposure/ blood transfusion	M												
		F												
8	Others; Specify ***(Not more than 10% of Total)***	M												
		F												
TOTAL		M												
		F												
A	TB	M												
		F												
B	Institutionalized	M												
		F												
C	Uniform service	M												
		F												
D	Mobile/Migrant	M												
		F												
E	Young People	M												
		F												

Test kit	Previous month balance	Received this month	Total (in hand)	used	Balance
	(A)	(B)	C= A+B	(D)	E= C-D
Determine					
Stat-Pak					

Annex 1.69

Monthly IPT report from Clinic/Township to Region/State & Central NAP/NTP

Clinic/Township _____ **Region/State _____**		**Month_____** **Year _____**
Block A: TB Screening		
TB SCREENING	**Number**	**Data Source**
Number of PLHA receiving services at clinic over reporting period		Daily OPD and TB screening register
Number of patients referred for TB diagnostic evaluation		Daily OPD and TB screening register [Count number with "Refer for TB Diagnosis" checked.]
Number of patients referred for IPT evaluation		Daily OPD and TB screening register [Count number with "Refer for IPT Evaluation" checked.]
Block B: IPT registration		
IPT REGISTRATION	**Number**	**Data Source**
Number of IPT registrations of Adults – In Township		IPT registers
Number of IPT registrations of Adults – Out of Township		IPT registers
Number of IPT registrations of Children – In Township		IPT registers
Number of IPT registrations of Children – Out of Township		IPT registers

Block C: IPT outcome reporting for patients registered on IPT during the same month, one-year earlier					**Patients registered during: Month_____ Year_____**		
[Data Source: IPT registers]	Total number registered during same month, one-year earlier	Completed ≥ 6 months	D/C Side effects	D/C Moved	D/C by Patient	Developed TB	Died
Patients residing In-Township							
Patients residing Out-of-Township							

Block D: IPT drug stock and supply request						
Item	Unit of measurement	(A) Stock on first day of month	(B) Stock received in month	(C) Consumption during month	(D) Closing stock on last day (D=(A+B)-C)	(E) Quantity requested (E=(C*1.3)-D)
Isoniazid 300 mg tab						
Isoniazid 100 mg tab						
Vitamin B6 (pyridoxine) 40 mg tab						

Date_____ Name and Designation _____ Signature_____

Annex 1.70

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annex 1.71

Annex 1.72

Monthly / Quarterly Report for Sputum Collection Center

Place of Sputum Collection Center: ……..…….. Population covered …….
Reported period: …..... Estimated TB suspects (1% of Population/ Year) …….
Date reported: …..... Estimated new sputum smear positive cases for year
(Population covered x 105 / 100,000) …….

Age and Gender distribution of TB suspects and detected sputum smear positive cases.

	AGE GROUP (YEAR)																TOTAL		
	0 -4		5 -14		15 - 24		25 - 34		35 - 44		45 - 54		55 - 64		65 or more				
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T
TB suspects																			
SS(+) among TB suspects																			

Follow up sputum examination.

	2 month	3 month	5 month	6 month	8 month	M	F	Total
Follow-ups examined								
SS (+) among Follow-ups								

Patients put on anti-TB treatment

TB patients put on Treatment					Total
Cat I (+)	Cat I (Neg:)	Cat II	Cat III	other	

Sputum specimen transportation.

Sr No:	Date	No: of TB suspect	No: of Follow up	Total	Sputum cups for TB suspect	Sputum cups for Follow up	Total Sputum cups used
1.							
2.							
3.							
Total							

Reported by…….

Annex 1.73

Sputum Collection Center Register

Name of Sputum Collection Center _____, Township _____ Year _____

Date	Sr. No	Name	Age		Complete address	Date of sputum sent to lab	Date of results received	Dx	FU	Results of sputum Examinations			TB treatment card opened? (Record date/ TB No.)
			M	F						1	2	3	

Annex 1.74

TB sputum samples dispatch list

Sputum collection center_____

TB laboratory for sputum examination: _____

Total number of sputum containers:_____

Sample sending date:_____

Transport charge:_____

Vehicle used:_____

SN	Name	Sex	Age	No of sputum cup		Serial number of Sputum collection center register	Laboratory number
				Dx	FU		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Specimen packed and transported by (signature)_____

Specimen received by lab technician (signature)_____

Certified by TMO (signature)_____

Annex 2 - Check lists for Supervision

Annex 2.1

Check list for supervisory visit to township level

Brief Supervisory check-list for District/Township level supervision

	Items
A. Work environment	
1. 2.	Seperate room for TB control activities including counseling IEC material
B. Laboratory	
1. 2. 3. 4.	Lab register Microscope Microscopist QC
C. Patient Treatment card	
	Up dated correct and complete data entry (Categories, treatment regimens and follow up sputum...)
D. Township TB register	
	Up dated. Correct and complete data entry (Categories, treatment regimens, follow up sputum and outcome....)
E. Quarterly report	
1. 2.	Timely reporting system Correctness and completeness
F. Drug stock	
1. 2. 3. 4. 5.	Drug stock register(main, sub and daily) Balance Buffer First Expired drug First Out system (FEFO) Storage
G. 1. Interview with TB coordinator	
	1.1 Township DOTS Micro-plan 1.2 Assigning of DOT supervisor 1.2 Decentralization of drugs to BHS 1.3 Counseling to patient at the time of registration and health education 1.4 HE to patient at follow up visits 1.5 Mapping of patients in area wise 1.6 List of patient with missing dose 1.7 Action taken for Missing dose patient 1.8 List of defaulter patients 1.9 Defaulter tracing and action taken 1.10 Transfer out patient systematically done 1.11 Keep record of part B of transfer form 1.12 Keep record of outcomes of transfer patient 1.13 Early referral of chest symptomatic patients from GP/NGO 1.14 Timely reporting of Quarterly Report form

	Items
G.2. Interview with BHS	
	2.1 Area-wise DOTS Micro-plan 2.2 Assigning of DOT provider 2.3 Supply of drugs to DOT provider 2.4 Mapping of patients in area-wise 2.5 Frequency of supervisory visits to DOT provider and patient 2.6 Missing dose patient list received from DOT provider 2.7 Action taken for Missing dose patient 2.8 Health talk at community 2.9 Action taken for side effect of drugs 2.10 Follow up sputum examinations
G.3. Interview with DOT provider	
	3.1 Daily watching of swallowing of the drugs 3.2 Regular drug supply from BHS 3.3 HE given 3.4 Training about TB received 3.5 Action taken for patient with missing dose. 3.6 Referring of patients with major side-effects. 3.7 Follow up sputum examinations
G.4. Interview with Patient	
	4.1 Symptoms and Spread of TB 4.2 Duration of treatment 4.3 Importance of treatment completion 4.4 Follow up sputum examination 4.5 Swallowing of the drugs in front of the DOT provider 4.6 Name of the DOT supervisor/ provider
G.5. Interview with Local Authority / Local NGOs	
	5.1 Advocacy 5.2 Symptoms of TB 5.3 Spread of TB 5.4 Participation in TB case finding and case holding 5.5 Free of charge TB treatment
G.6. Interview with GPs	
	6.1 Advocacy 6.2 Suspect referral 6.3 DOT provider 6.4 Health education 6.5 Free of charge TB treatment 6.6 Follow NTP treatment Guideline

Annex 2.2

Detailed Supervisory check list for township health facility

Name of township _____ Date of visit _____

Name of TMO_____TB coordinator _____

Name of Supervisors_____

Please write 'Yes' or 'No' in the column 'Observation' and write brief explanations if necessary.

<table>
<tr><th>A.</th><th>Township TB center</th><th>Observation</th></tr>
<tr><td>1</td><td>Does TB clinic have good lighting, ventilation and adequate counseling space?</td><td></td></tr>
<tr><td>2</td><td>Do they have township health profile including standardized TB indicators?</td><td></td></tr>
<tr><td>3</td><td>Do they have micro plan for Township TB control activities for this year?</td><td></td></tr>
<tr><td>4</td><td>Is there any area wise TB situation mapping?</td><td></td></tr>
<tr><td>5</td><td>Have they trained on TB control strategy or not, when was the last training?
TB coordinator
_____
BHS
_____</td><td></td></tr>
<tr><td>6</td><td>Are there IEC materials easily available for patients?</td><td></td></tr>
<tr><td>7</td><td>Do they have up to date standing orders from NTP?</td><td></td></tr>
<tr><td>8</td><td>Are there any figures and diagrams on TB control achievement?</td><td></td></tr>
<tr><td>9</td><td>Are there any action taken on recommendations of previous supervisory visits?
If not, why?</td><td></td></tr>
<tr><th>B.</th><th>Laboratory</th><th>Observation</th></tr>
<tr><td>1</td><td>Is there a good working environment,
running water,
electricity?</td><td></td></tr>
<tr><td>2</td><td>Is there a Standard Operating Procedure (SOP) for sputum microscopy available?</td><td></td></tr>
<tr><td>3</td><td>Microscope status
<table>
<tr><td></td><td>Functioning</td><td>Not Functioning</td></tr>
<tr><td>Monocular</td><td></td><td></td></tr>
<tr><td>Binocular</td><td></td><td></td></tr>
</table></td><td></td></tr>
<tr><td>4</td><td>Are the lab. Requisition forms of NTP
used,
filled correctly?</td><td></td></tr>
<tr><td>5</td><td>Is the lab. register filled correctly ?
up to date?</td><td></td></tr>
<tr><td>6</td><td>Do they give grading on sputum microscopy results?</td><td></td></tr>
<tr><td>7</td><td>Is the lab. under Quality control (QC) system?</td><td></td></tr>
</table>

8	Logistics: Are there sufficient amount (approximately one quarter) of Sputum cups Slides Slide boxes Staining reagents	
9	How is the waste being disposed? burning burial boiling	
10.	Does the technician use anti septic solution before disposed?	
C.	**Review TB treatment cards**	**Observation**
1	Are treatment cards kept in order and up to date? (according to TB numbers, yearly)	
2	Are there duplicate treatment cards?	
3	Is township TB number filled up correctly? (ie. Year/Number written in red ink)	
4	Are patients' information filled up correctly in the treatment cards?	
5	Are TB patients on the correct category and treatment regimen?	
6	Are sputum results and body weight recorded correctly and updated?	
7	Is there intensive phase of treatment prolonged for one month for category I and category II patients who have positive sputum smear results at the end of the intensive phase? If no, number _____)	
8	The information on the TB treatment card sufficient to determine the treatment outcome such as cured/completed/treatment failure?	
9	Are follow-up sputum requisition forms attached to the TB treatment cards?	
10	Is the treatment outcome and special situations filled up in the remarks space?	
D.	**Review Township TB Register**	**Observation**
1	Is it up to date?	
2	Is there any discrepancies, when you check correctness, completeness and consistency with treatment cards : _____ with lab. register: _____	
3	Did TB patients who were still smear positive at the end of intensive phase receive another one month treatment?	
4	Are all new smear positive patients who are smear positive at the end of 5th month or more categorized as 'Failure' and re-registered in category II as 'Failure' cases?(check with treatment card)	
5	Is there any report on treatment outcome of transferred out patients? Elaborate	

E.	Quarterly report	Observation
1	Is quarterly report timely reported to Central NTP, State/Region and District TB centre?	
2	Is there any discrepancy between previous quarterly report and township TB register?	
3	Check correctness and completeness.	
4	Calculate and compare with previous 2 yrs CDR, CR, TSR, Defaulter rate Failure rate	
F.	**Drug store (AS IT IS)**	**Observation**
1	Are anti-TB drugs kept under lock and key in main store?	
2	Do they have main, sub and daily stock books?	
3	Are they filled up to date in main store?	
4	Do they have buffer stock in main store?	
5	Is a FEFO (First Expiry First Out) system used?	
6	Are inventory cards kept up to date, check with the ground balance?	
7	Remaining anti-TB drugs in the stock will last _____ months	

Drug situation

Drugs	Remaining amount	Expiry dates	If expired, amount of drugs
4-FDC			
2-FDC			
Pyrazinamide			
Ethambutol			
Inj. Streptomycin			
Isoniazid (100mg)			
Isoniazid (300mg)			
Pre-packed patient kit Cat I			
Pre-packed patient kit Cat II			
Paediatric HRZ			
Paediatric HR			

G	Interview with TB coordinator	Observation
1	Does the TB coordinator have the training from NTP? If yes, when _____ and type of training _____	
2	Does the TB coordinator have TB manual?	
3	Does the TB coordinator counsel TB patients at the time of registration?	
4	Does TB coordinator have a list of patients with missing doses? Any action and when does it start?	
5	Is there a list of defaulters? Any action and when does it start?	
6	How many defaulters return and place back on treatment? _____	
7	Does TB coordinator assign DOT providers to all TB patients?	
8	Does TB coordinator regularly go for supervision according to plan?	
9	Does GPs/ NGOs refer chest symptomatic patients to health center for early diagnosis and treatment? If yes, from GPs _____ Is this recorded? from NGOs _____ Is this recorded?	
10	Are anti-TB drugs supplied to BHS? How frequent? _____	
11	Is there any separate register for TB/HIV co-infection	
12	Does TB coordinator timely report quarterly report form	
13	Are there any problems?	
14	Do you have a system for initial home visit and contact tracing just after a new TB patient has registered?	
15	Any problem?	
H.	**Interview with BHS**	**Observation**
1	Have BHS received training from NTP? If yes, when _____ and type of training _____	
2	Does BHS have NTP guidelines for BHS?	
3	Does BHS have sub-centre wise TB sub-register?	
4	Does BHS make initial visit to TB patient's home for contact tracing?	
5	Does BHS assign a suitable DOT provider for each TB patient?	
6	Does BHS supervise the DOT providers? If yes, how frequent? _____ What does BHS usually check during the supervision? _____	
7	Is there any DOT by BHS? No. of patients _____	
8	Does BHS supply anti-TB drugs to the DOT providers? If yes, how frequent? _____	
9	Does BHS give health education to their TB patients?	
10	Does BHS check any patients with miss doses? How does BHS take action?	
11	Does BHS know what action to take for side effects of anti-TB drugs?	

12	When was the last supervision make by State/Region _____ District _____ Township _____					
13	Do BHS know the schedule for follow-up sputum examination and important of this?					
14	Any problem?					
I.	**Interview with TB patients**	**Observation**				
		P1	**P2**	**P3**	**P4**	**P5**
1	Is the patient aware that he/she is undergoing treatment for TB?					
2	Does the patient know how TB spread? How to prevent spread?					
3	Does the patient know the duration of treatment?					
4	How many tablets are taking every day? When do you take these medicines?					
5	Did the treatment start within 7 days of sputum microscopy?					
6	Does any one observe you when taking these medicines?					
7	Do you take these medicines in divided dose or single dose?					
8	Do you know when to do sputum follow-up examinations?					
9	Are drugs given you in advance for treatment? How many doses? _____					
10	Do you have to pay for the drugs?					
11	Do you know the name of your DOT supervisor/DOT provider?					
12	Do you have any problem with treatment? (time, travel cost, clinic hours, suffering side effects)					
13	Do you know what to do for getting continuous anti-TB drugs when you move out of the area?					
14	Any problem?					
J.	**Interview with DOT provider/ Community TB treatment supporter**	**Observation**				
1	Did you get any training for your task? If yes, when _____ where _____					
2	How many TB patients are you currently responsible for DOT? Cat I _____, Cat II _____, Cat III _____					
3	Do you receive anti-TB drugs regularly from BHS?					
4	Do you watch your patients swallowing of anti-TB drugs daily?					
5	Are the TB patient cards recorded at the same time when DOT is given?					
6	How frequent your DOT supervisor visit to you? When was the last visit? _____					
7	What will you do when patients interrupt the treatment? (miss dose)					
8	What will you do if patient complaint of side effects?					
9	Do you know the schedule for sputum follow-up examinations?					
10	What will you do when patient wants to move to another place?					
11	How many TB patients treated successfully?					
12	Any problem?					
K.	**Interview with local authority/local NGO members**	**Observation**				
1	Did you attend the advocacy meeting on TB control?					

2	Do you know the symptoms of TB and how it spreads?	
3	Do you know the place for TB diagnosis and treatment?	
4	Do you participate in TB case finding and holding?	
5	Do you know what are the consequences if TB patient do not take treatment regularly?	
6	Do you know what are consequences if TB patient in community do not get diagnosis and treatment?	
7	Do you know the TB treatments are free of charge?	
L.	**Interview with local GPs**	**Observation**
1	Did you attend the advocacy meeting on TB control?	
2	Do you refer TB suspects to township TB clinic?	
3	Do you know the TB treatments are free of charge?	
4	Do you know current NTP treatment guidelines?	
5	Do you have a TB treatment guideline for GPs?	
6	Did you follow NTP treatment guideline?	
7	What is your impression on ISTC?	

Signature _____
Name of supervisor _____
Designation _____
Date _____

Annex 2.3

Name of township _____ Name of RHC_____
Date of visit _____
Name of Supervisors _____

Please write 'Yes' or 'No' in the column 'Observation' and write brief explanations if necessary.

A.	Rural Health Center	Observation
1	Does RHC have TB sub register?	
2	Is there area wise mapping of TB patients?	
3	Does RHC have a list of TB patients, their DOT providers according to each DOT supervisor, BHS?	
4	Does BHS have a duplicate treatment cards?	
5	How frequent BHS supervise DOT providers?	
6	Is there any clinic DOT? If yes, No. of Patients _____	
7	Does RHC have NTP guidelines for BHS?	
8	Does RHC have IEC materials for TB?	
9	Is there any display on figures and diagrams on TB control achievement of RHC?	
10	Do the remaining drugs in the hands of BHS tally with those on the treatment card?	
B.	**Interview with BHS**	**Observation**
1	Have BHS received training from NTP? If yes, when _____ and type of training _____	
2	Does BHS have NTP guidelines for BHS?	
3	Does BHS have sub-centre wise TB sub-register?	
4	Does BHS make initial visit to TB patient's home?	
5	Does BHS assign a DOT provider for each TB patient?	
6	Does BHS supervise the DOT providers? If yes, how frequent? _____ What does BHS usually check during the supervision? _____	
7	Is there any DOT by BHS? No. of patients _____	
8	Does BHS supply anti-TB drugs to the DOT providers? If yes, how frequent? _____	
9	Does BHS give health education to their TB patients?	
10	Does BHS check any patients with miss doses? How does BHS take action?	
11	Does BHS know what action to take for side effects of anti-TB drugs?	
12	When was the last supervision make by State/Region_____ District _____ Township _____	
13	Do BHS know the schedule for follow-up sputum examination and important of this?	

C.	Interview with TB patients	Observation				
		P1	P2	P3	P4	P5
1	Is the patient aware that he/she is undergoing treatment for TB?					
2	Does the patient know how TB spread? What to do not to spread?					
3	Does the patient know the duration of treatment?					
4	How many tablets are taking every day? When do you take these medicines?					
5	Did the treatment start within 7 days of sputum microscopy?					
6	Does any one observe you when taking these medicines?					
7	Do you take these medicines in divided dose or single dose?					
8	Do you know when to do sputum follow-up examinations?					
9	Are drugs given you in advance for treatment? How many doses? _____					
10	Do you have to pay for the drugs?					
11	Do you know the name of your DOT supervisor / DOT provider?					
12	Do you have any problem with treatment? (time, travel cost, clinic hours, suffering side effects)					
13	Do you know what to do for getting continuous anti-TB drugs when you move out of the area?					
D.	**Interview with DOT provider/ Community TB treatment supporter**	**Observation**				
1	Did you get any training for your task? If yes, when _____ where _____					
2	How many TB patients are you currently responsible for DOT? Cat I _____, Cat II _____, Cat III _____					
3	Do you receive anti-TB drugs regularly from BHS?					
4	Do you watch your patients swallowing of anti-TB drugs daily?					
5	Are the TB patient cards recorded at the same time when DOT is given?					
6	How frequent your DOT supervisor visit to you? When was the last visit? _____					
7	What will you do when patients interrupt the treatment? (miss dose)					
8	What will you do if patient complaint of side effects?					
9	Do you know the schedule for sputum follow-up examinations?					
10	What will you do when patient wants to move to another place?					
11	How many TB patients treated successfully?					
12	Any problem?					
E.	**Interview with local authority**	**Observation**				
1	Did you attend the advocacy meeting on TB control?					
2	Do you know the symptoms of TB and how it spreads?					
3	Do you know the place for TB diagnosis and treatment?					
4	Do you participate in TB case finding and holding?					
5	Do you know what are the consequences if TB patient do not take treatment regularly?					
6	Do you know what are consequences if TB patient in community do not get diagnosis and treatment?					

7	Do you know the TB treatments are free of charge?	
F.	**Interview with local NGO members**	**Observation**
1	Did you attend the advocacy meeting on TB control?	
2	Do you know the symptoms of TB and how it spreads?	
3	Do you know the place for TB diagnosis and treatment?	
4	Do you participate in TB case finding and holding?	
5	Do you know the TB treatments are free of charge?	
G.	**Interview with community leaders**	**Observation**
1	Did you attend the advocacy meeting on TB control?	
2	Do you know the symptoms of TB and how it spreads?	
3	Do you know the place for TB diagnosis and treatment?	
4	Do you participate in TB case finding and holding?	
5	Do you know the TB treatments are free of charge?	

Signature _____
Name of supervisor _____
Designation _____
Date _____

Annex 2.4

Supervision Check List for NTP Drug and Supply

Sr. No.	Drug and Supply	Observation
1	Are anti - TB drugs and supplies quantify properly?	
2	Do they send indents timely, and with correct forms?	
3	Do they receive required amount of anti- TB drugs and supplies?	
4	Is unpacking and checking done properly on receiving the drugs and supplies?	
5	Is there any discrepancy between the Invoice and the actual receipt?	
6	Are main stock of anti TB drugs and supplies kept under double lock and key and sealed in the main store?	
7	Do the inventory cards update including the expiry dates sign and keep together with the stocks in the store?	
8	Are the main stock book, sub-stock book and daily use register updated including expiry date?	
9	What percent of buffer stock do they have?	
10	Is FEFO system used?	
11	Is there temperature recording in the store?	
12	Is there any expired drugs?	
13	Is there any damaged drug / supply?	
14	Is there any stock placed directly on the floor?	
15	Is the store dry, clean and stock kept in a proper manner?	
16	Is there any sign of damage of the drug/supply by mice, pest and insects?	
17	Is there any fire preventive measures taken?	
18	Remaining anti TB drugs in the stock will last ---------- month.	

<table>
<tr><th>Sr. No.</th><th>Drug and Supply</th><th>Observation</th></tr>
<tr><td></td><td>
<table>
<tr><th>Drugs</th><th>Remaining Quantity</th><th>Expiry dates</th><th>If expired, quantity of drugs</th></tr>
<tr><td>Patient Kit Cat I+ III</td><td></td><td></td><td></td></tr>
<tr><td>Patient Kit Cat II</td><td></td><td></td><td></td></tr>
<tr><td>4-FDC</td><td></td><td></td><td></td></tr>
<tr><td>2-FDC</td><td></td><td></td><td></td></tr>
<tr><td>Pyrazinamide</td><td></td><td></td><td></td></tr>
<tr><td>Ethambutol</td><td></td><td></td><td></td></tr>
<tr><td>Streptomycin</td><td></td><td></td><td></td></tr>
<tr><td>Isoniazid (100mg)</td><td></td><td></td><td></td></tr>
<tr><td>Isoniazid (300mg)</td><td></td><td></td><td></td></tr>
<tr><td>Rifampicin (300mg)</td><td></td><td></td><td></td></tr>
<tr><td>Inj: D/W 5ml</td><td></td><td></td><td></td></tr>
<tr><td>Disposable Syringe & Needle</td><td></td><td></td><td></td></tr>
</table>

Laboratory

19
<table>
<tr><td>Microscope</td><td>Functioning</td><td>Not Functioning</td></tr>
<tr><td>Monocular</td><td></td><td></td></tr>
<tr><td>Binocular</td><td></td><td></td></tr>
</table>

20 Are there sufficient amount of
Sputum cups
Slides
Slide boxes
Staining reagents
(Balance in hand must be sufficient for one quarter ; i.e. previous quarter used quantity)
</td><td></td></tr>
</table>

Remarks:_____

Signature
Name _____
Designation_____
Department _____

Annex 2.5

Supervision report form

Name of township _____State/Region _____Date of visit _____
Name of Supervisor _____

Sr. No.	Items checked	Findings	Recommendations	Actions taken by the supervisor	Assigned person for recommendation
	General Information (a) IEC materials, ACSM activities (b) Market survey				
1.	Laboratory Lab. register Logistic (microscope, slide, reagent) QC Waste disposal				
2	TB clinic Clinic environment Treatment card Township TB Register and patient mapping Quarterly reports (TB-07, TB-08) Drug store and stock balance				

Sr. No.	Items checked	Findings	Recommendations	Actions taken by the supervisor	Assigned person for recommendation
3	Performance indicators CDR CR TSR Case fatality rate Defaulter rate (Numerator/Denominator*100 = %)				
4	**Interview** with TB patients				
5	Interview with (a) health staffs (b) DOT provider (c) Local Authority/NGOs (d) GP				
6	Overall problems				
7	Overall remarks				

Signature _____
Name of supervisor _____
Designation _____
Date _____

Annex – 3 Feedback forms

Annex 3.1

National TB Programme
Feedback for townships of _____ State/Region (Year _____, _____ quarter)

State/ Region	Low CR =50% & Low CDR =40%	Low CR =50%	Low CDR =40%	CDR= 100% Low CR	CR 100% Low CDR =40%	CDR =100%	CR 100%	CR =85% & CDR =70%	High Defaulter Rate >10%	Sputum Conversion Rate <80%	Case Fatality Rate	Treatment failure rate	Average Tsp.	Tsp. under QA

Signature _____
State/Regional TB Officer _____ State/Region _____

Annex 3.2

Quarterly Assessment of TB Control Activities

_____Township/District/ State/Region _____ Quarter, Year _____

No.	Items	Achievement	Target	Remarks
1.	DOTS covered population in Township / District / State / Region		100%	
2.	Reporting efficiency (Reporting Units =)		100%	For State/Region
3.	Laboratory Quality Control Performance (Townships =)		100%	For State/Region
4.	Supervisory visit of DMO / TMO / S/D Responsible personnel to District / Township / RHC level (_____ Districts / Townships/ Health centers)		100%	
5.	Case detection rate (New smear positive TB patients)		17.5%	
6.	Case notification rate (New smear positive TB patients)	/ 100,000 pop.		
7.	Ratio of new smear positive to new smear negative pulmonary TB patients		1:1	
8.	Sputum conversion rate for new smear positive TB patients		80%	
9.	Treatment success rate of new smear positive TB cases		> 85%	
10.	Sputum positivity rate		10%	
11.	Proportion of TB suspected patients who had sputum microscopic examination in the township/district/State or Region		1% of the township pop. for a year	

Annex 3.3

Quarterly Evaluation format of TB Control activities

_____Township/District/ State/Region _____ Quarter, Year _____

No.	Township	Pop.	No. of New smear positive TB patients detected	CDR	CNR	TSR
1.	Urban health center					
2.	Station hospital 1) 2)					
3.	Rural health center 1) 2) 3) 4) 5)					
	Township					

Annex 3.4

Monthly/Quarterly TB Meeting and reporting format

Meeting Agenda

Topic	Presenter
Opening of monthly meeting	TMO
Briefing of township TB control situation for the month / quarter _____	TMO or TB coordinator
Presentation on health center wise TB control situation and achievement including suspect identification, referral, case management, health education, initial home visit and contact tracing, miss dose/ defaulter tracing	SMO/HA from each health center
Discussion on status of existing TB cases if any problem	DOT supervisors (BHS)
General discussion	all participants
General comment and recommendation	TMO
Closing of the monthly TB meeting	TMO

Assessment on township TB control achievement and report

1. Township TB situation in _____ month or quarter

Health center	. Est. new S+ TB patients	Detected new S+ TB patients	Diagnosed TB		Total
			0 -14	15 +	
MCH/Urban					
Station Health Center					
Station Health Center					
RHC					
RHC					
RHC					
RHC					
RHC					
RHC					
Total					

2. Township TB coordinator inform respective SMO/HA to assign DOT Provider/ supervisor.

3. SMO/HA recorded TB cases in township TB sub register and assigned DOT provider

4. TB suspect referral activity in _____ month or quarter

Health center	TB suspect referred		Total
	0 -14	15 +	
MCH/Urban			
Station Health Center			
Station Health Center			
RHC			
RHC			
RHC			
RHC			
RHC			
Other (GP, NGO, cured TB patient, etc)			
Total			

5. Initial home visit and contact tracing activity

Total number of registered TB patients in the month / quarter	
Total number of TB patients had been visited	
Total number of contacts evaluated (asked cough > 2 weeks)	
Total number of TB suspects	
Total number of TB suspects examined for sputum for AFB	
Total number of contacts put on anti-TB treatment	

6. Health education activity

7. TB case management activity

Health center	New Smear Positive (same quarter of one yr back)	Treatment outcome				Others (to discuss those cases)
		C	D/F	T/F	T/O	
MCH/Urban						
Station Health Center						
Station Health Center						
RHC						
RHC						
RHC						
RHC						
RHC						
RHC						
Total						

(C = cured, D/F = defaulter, T/F = Treatment failure, T/O = Transferred out)

8. Recommendation

1. _____
2. _____
3. _____

Annex 3.5

Cohort review meeting report for township

Summary of TB Cases and Contacts

Year _____, Quarter _____

Cohort Review Variables

Treatment outcomes after review		
A	No. of cured patients	
B	No. of treatment completed patients	
C	No. of died patients	
D	No. of failed patients	
E	No. of defaulted patients	
F	No. of transferred out patients	
G	No. of patients still on treatment	
H	No. of treatment interrupted patients	
Contact tracing		
I	No. of contacts identified (household member)	
J	No. of contacts evaluated (household member; cough > 3 wk)	
K	No. of TB suspects	
	No. of TB suspects examined for sputum AFB	
	No. of contacts put on TB treatment	

Recommendation / Follow-up Actions

Sr. No.	Recommendations	Accomplished by
1	e.g. Counseling to TB patients	TB coordinator
2	Refresher training on sputum microscopy	Regional TB Officer to inform senior microbiologist
3		

Follow-up of previous recommendation:

Sr. No.	Previous Recommendations	Accomplished or not / remarks
1	To appoint microscopist	Appointed
2	To ensure DOT providers for every patient	Done
3		

Thank you for your collaboration and continuous support

Sincerely,

Signature ----------

Designation – Township Medical Officer

Township ----------

State / Region ----------

Date ----------

Cc,

District TB Team Leader, _____ District, _____ State / Region

Annex 3.6

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Annex 3.7

NTP Training Activities List for _____ month, Year _____

Sr. No.	Township	Training Activities	Training Period		Participants			Remark
			From	to	Male	Female	Total	
1								
2								
3								
4								
5								
6								
7								
8								
9								

Signature _____ Designation _____

Annex 4. Key Indicators : Operational definitions

Table 1: Operational definition and measurement of the indicators included in GF performance framework

	Indicator	Indicator definition	Data collection method	Frequency of data collection	Person/Agency responsible for collection and reporting
Impact	TB prevalence per 100,000 population/year	Number of prevalent TB cases (all forms) per 100,000 population in a given year	• WHO estimates • National prevalence survey	• Annual • Periodic	• WHO • NTP
	TB mortality per 100,000 population/year	Number of deaths due to TB (all forms) per 100,000 population in a given year	• WHO estimates • National TB mortality surveys	• Annual • Periodic	• WHO • NTP
	Prevalence of MDR TB among new sputum smear positive cases of TB	Number of MDR-TB cases among all new sputum smear positive TB cases surveyed	• National Drug Resistance Survey	Periodic	NTP (2011, 2013, 2015)
Outcome	Case notification rate: Rate of new smear positive TB patients notified to national TB programme during the year (per 100,000 pop.)	Numerator: number of new smear positive TB cases notified in TB registers between 1st January and 31st December of the reporting year Denominator: Population of the reporting year	Numerator: Township TB register (TB03); quarterly report on TB case registration (TB 07) Denominator: population from Region / State level	Annual Annual	NTP WHO
	Case notification rate: Rate of TB patients (new and relapse, all forms of TB) notified to national TB programme during the year (per 100,000 pop.)	Numerator: number of TB patients (new and relapse, all forms of TB) notified in TB registers between 1st January and 31st December of the reporting year Denominator: Population of the reporting year	Numerator: Township TB register (TB03); quarterly report on TB case registration (TB 07) Denominator: population from Region / State level	Annual Annual	NTP WHO
	Case detection rate: Percentage of new smear positive TB patients reported to the national TB programme among the new smear positive TB patients estimated to occur countrywide each year	Numerator: number of new smear positive TB cases recorded in TB registers between 1st January and 31st December of the reporting year Denominator: estimated number of new smear positive TB cases in the same reporting year	Numerator: Township TB register (TB03); quarterly report on TB case registration (TB 07) Denominator: WHO estimate	Annual Annual	NTP WHO
	Treatment success rate: percentage of new smear positive TB patients successfully treated (cured plus completed treatment) among the new smear positive TB patients registered on treatment	Numerator: number of new smear positive TB cases registered between 1st January and 31st December of the year before the reporting year (Y-1) classified as “cured” and “treatment completed” at the end of the reporting year (Y) Denominator: number of new smear positive TB cases recorded in TB registers between 1st January and 31st December of Y-1	Numerator: Patient treatment cards (TB 02); Quarterly reports on the results of TB patients registered 12-15 months earlier (TB 08) Denominator: Township TB register (TB03); quarterly reports on TB case registration (TB 07)	Annual	NTP

	Indicator	Indicator definition	Data collection method	Frequency of data collection	Person/Agency responsible for collection and reporting
	Treatment success rate among MDR-TB cases (24 months treatment outcome); number and percentage of laboratory confirmed MDR-TB patients successfully treated (cured + completed treatment) among those enrolled on second line anti-TB treatment	Numerator: number of MDR-TB patients registered between 1st January and 31st December of 3 years before classified as "cured" and "completed" at the end of the reporting year Denominator: number of MDR-TB cases recorded in MDR-TB registers between 1st January and 31st December of 3 years before	Numerator: MDR-TB Patient treatment cards; Annual reports on the results of TB patients registered 36 months earlier Denominator: MDR- TB register; Annual reports on TB case registration	Annual	NTP
O	Number of new smear positive TB patients reported to the NTP	Number of new smear positive TB cases recorded in the Township TB register (TB 03) in the reporting period	• Township TB register (TB03); • Quarterly reports on TB case registration (TB 07)	Quarterly	NTP
	Number and percentage of new smear positive TB patients successfully treated among the new smear positive TB patients registered on treatment	Numerator: number of new smear positive TB cases registered between 1st January and 31st December of the year before the reporting year (Y-1) classified as "cured" or "treatment completed" at the end of the reporting year (Y) Denominator: number of new smear positive TB cases recorded in TB registers between 1st January and 31st December of Y-1	• Township TB register (TB03); • Quarterly reports on the results of TB patients registered 12-15 months earlier (TB 08)	Quarterly	NTP
	Number of all forms TB patients notified to NTP	Number of all forms of TB patients, registered during the reporting period	• Township TB register (TB03); • Quarterly reports on TB case registration (TB 07)	Quarterly	NTP
	Number and percentage of microscopy centers monitored under the external quality control system out of all planed to covered under the national EQA system.	Numerator: Number of microscopy centres monitored under EQA during the reporting period Denominator: number of all planned microscopy centers to be covered under national EQA system during the reporting period	• EQA reports of all microscopy centres • Feedback forms to all microscopy centres	Quarterly	NTP
	Number of patients receiving incentives in the form of transport costs for diagnosis and/or treatment	Number of patients receiving incentives as transport costs for diagnosis and / or treatment in the reporting period	• Quarterly reports of TB control activities (at township/state/central level) by SRs • Financial reports (Systematic reporting through standardized forms to be developed)	Quarterly	Data collection and reporting: IOM, World Vision, Malteser, MHAA, MERLIN, PSI Data compilation and reporting by PRs

	Indicator	Indicator definition	Data collection method	Frequency of data collection	Person/Agency responsible for collection and reporting
	1.3 Number and percentage of treatment units at township level reporting no stock out of first line anti-TB drugs on the last day of each quarter out of all treatment units	Numerator -Number of treatment units reporting no stock out of first line anti-TB drugs on the last day of each quarter out of all treatment units during the reporting period Denominator- Number of all treatment units during the reporting period	Quarterly report on drug stocks from all treatment centers	Quarterly	Data collection and reporting: NTP Data compilation and reporting by NTP
	Number and percentage of townships supervised and feedback provided by the NTP out of all townships planned to be supervised during each quarter	Numerator: Number of townships supervised and feedback provided by NTP during each quarters Denominator: Number of townships planned to be supervised and feedback provided by NTP during each quarters	Quarterly reports on supervision and feedback (formats to be updated)	Quarterly	Data collection and reporting: NTP
	Number of Basic Health Staff trained on TB management	Number of Basic Health Staff trained by the NTP on TB management in the reporting period	Reports on training conducted from state/Regional level	Monthly	Data collection and reporting: NTP
	Number and percentage of all registered TB patients 15 years and above who are tested for HIV	Numerator: Total number of TB patients 15 years and above tested for HIV during the reporting period Denominator: total number of TB patients 15 years and above registered in the same reporting period	• Township VCCT registers (NAP) kept at the TB clinics • Quarterly report on TB case registration (TB 07) from 11 TB/HIV sites • TB 03 and TB 07 at the national level (SRs to report only on number of TB patient tested for HIV)	Quarterly	Data collection and reporting: MHAA, PSI, IOM, NTP to both PRs and NTP Data compilation and reporting by NTP
	Number of laboratory confirmed MDR-TB patients enrolled in the MDR-TB treatment programme	Number of laboratory confirmed MDR-TB patients enrolled in the MDR-TB treatment programme in the reporting period	• Project Lab MDR-TB register • Project MDR-TB treatment register	Quarterly	Data collection and reporting: NTP
	Number of new smear positive TB patients notified and registered in the six targeted border townships (Myawaddy, Tachileik, Muse, Kalay, Kawthoung, Maungthaw)	Number of new smear positive TB patients notified and registered in the following border townships: Myawaddy, Tachileik, Muse, Kalay, Kawthoung, Maungthaw in the reporting period	• Township TB register (TB 03) • Quarterly reports on TB Case Registration (TB 07)	Quarterly	Data collection and reporting: NTP
	Number of smear-positive TB patients registered for treatment in PPM DOTS clinics (Scheme 3)	Number of smear-positive TB patients registered for treatment under Scheme 3 in PPM DOTS clinics in the reporting period	Quarterly report on TB Case Registration (TB 07) from PPM	Quarterly	Data collection and reporting: MMA, PSI Data compilation and reporting by NTP

	Indicator	Indicator definition	Data collection method	Frequency of data collection	Person/Agency responsible for collection and reporting
	Number of community health workers trained and actively involved in TB case finding and/or treatment activities at community level	Number of community health workers trained and actively involved in TB case finding and/or treatment activities at community level will be defined as “individuals who do not receive salaries from governmental or non-governmental entities (eg., community DOT providers, volunteers, family members, etc)”, trained for community based TB care and submit the month report regularly. It will be counted even community health volunteer (CHV) sends the “nil” report as active CHV	• Quarterly reports of TB control activities of SRs • Financial reports	Quarterly	Data collection and reporting: NTP, World Vision, IOM, Malteser, PSI, Merlin Data compilation and reporting by PRs