THE UNITED REPUBLIC OF TANZANIA

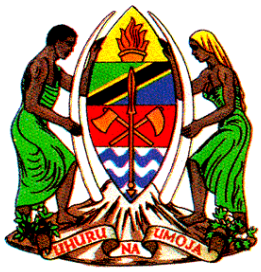
MINISTRY OF HEALTH AND SOCIAL WELFARE

MONITORING & EVALUATION PLAN

FOR
TB AND LEPROSY PROGRAM
(2015-2020)

OCTOBER 2015

THE UNITED REPUBLIC OF TANZANIA



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MONITORING AND EVALUATION PLAN

Part I: Introduction

1. The purpose of this Monitoring and Evaluation (M&E) plan

The Core Plan of the National Strategic Plan (NSP) contains the overall goal for 2015-2020 – *to reduce the tuberculosis epidemic and burden and Leprosy disabilities in Tanzania* – and describes 7 objectives, together with strategic interventions. Objectives 8 and 9 should be incorporated in the strategic plan, however, as they were only discussed in more detail later on, they are also mentioned in this plan.

The activities are described in the operational plan, which complements the Core plan. The indicators and performance targets are described in this M&E plan.

The M&E plan has two main parts. The purpose of the first part is to describe how, using the National TB and Leprosy Programme (NTLP) M&E system, impact on progress of the TB epidemic in Tanzania will be charted until 2020. It will also monitor progress in achieving planned outcomes, and delivering planned outputs and processes, as well as inputs. The indicators to be used are described as well as their annual targets. In the second part, the M&E plan will address the strengths and weaknesses of the current M&E system, how these will be addressed in the plan period, and the specific activities aimed at significantly improving M&E in Tanzania by 2020. The plan should enable the NTLP to check its progress regularly, decide whether performance targets are being met and whether corrective action needs to be taken.

Organization of the NTLP

To be added later.

2. Overview of the current M&E system

a. Current M&E objectives

The objectives of the current M&E plan were not spelled out, however, it is implied that the M&E plan has been used to monitor the NSP IV's objectives. In the recent program review (February 2014), it was noted that, despite the presence of a functional M&E unit and plan, the plan was not used to review annual program performance.

b. Data collection and sources

In Tanzania, NTLP data is obtained from patient cards and TB registers that are filled out at DOTS centers for TB and MDT centers for Leprosy. District level reports to higher levels through standardized paper based forms on a quarterly basis. Starting in 2014, district reports are being entered into the new electronic web based database, the District Health Information System (DHIS2). The database can be accessed at regional and national levels for data review and analysis and feedback. The Tuberculosis and Leprosy Central Unit (TLCU) (at national level) compiles the district data to generate annual reports and other reports for specified periods as requested by different funding agencies in and outside the country.

Generally, the data for measuring the indicators come from routine data sources (Table 1) and some from periodic surveys.

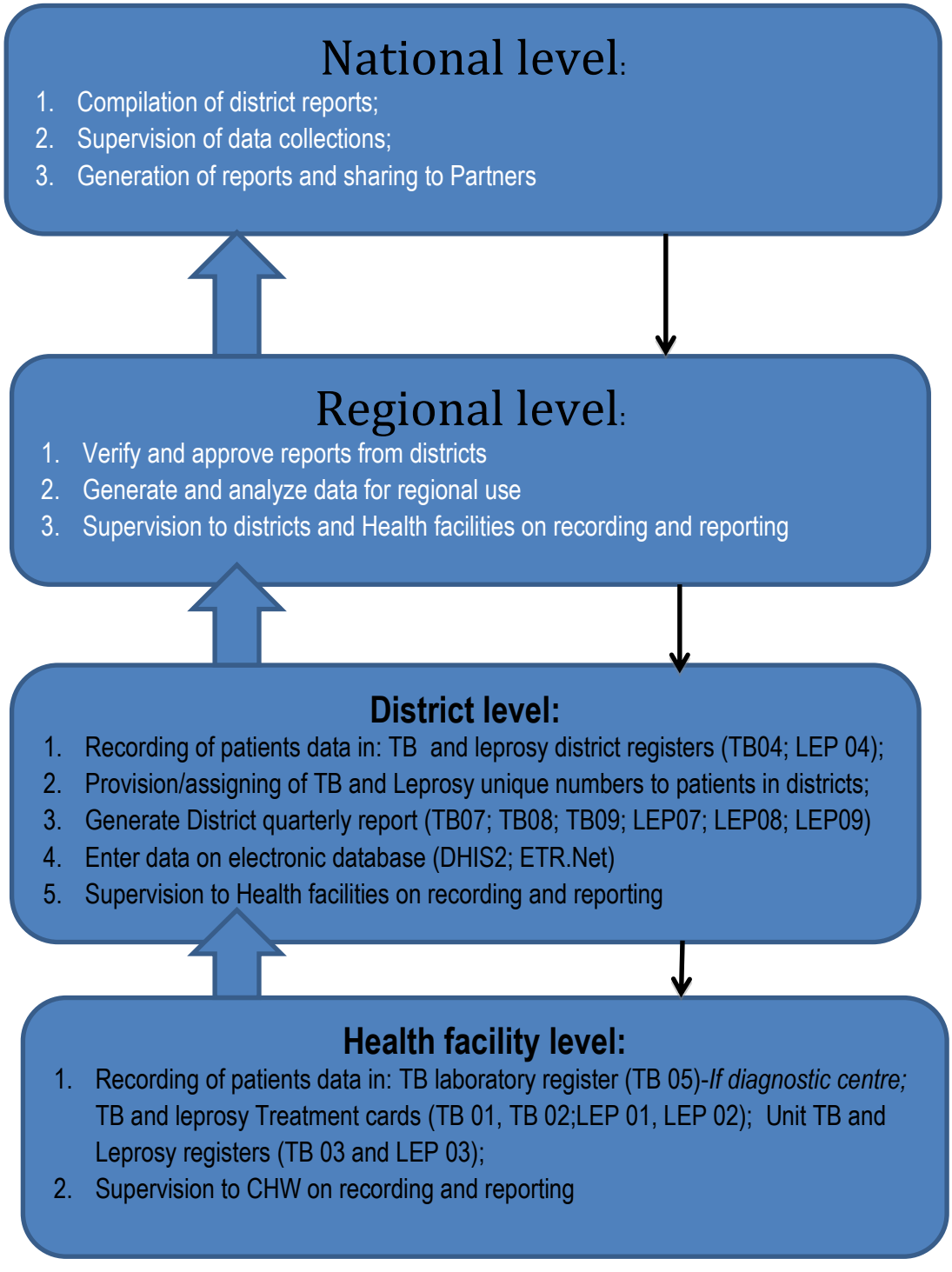
The standardized data collection tools for program monitoring, planning and evaluation, as recommended by WHO have been adopted. The tools for data collection for TB care and control, MDR-TB, Leprosy, and TB-Leprosy combined forms appear in Annex I.

Table 1. Data sources

Data source	**Relevant time period**	**Frequency**	**Responsibility**
National TB prevalence survey	Survey, 2012	Every 5-10 years	NTLP, WHO and partners
NTLP reports and WHO Global Tuberculosis Report	Previous year	Annually	M&E unit, TLCU, WHO
NTLP quarterly reports	Previous quarter	Quarterly	M&E Unit, TLCU
NTLP annual reports	Previous year	Annually	M and E Unit, TLCU
TB laboratory EQA quarterly reports	Previous quarter	Quarterly	CTRL, M&E unit, TLCU
Drug Resistance Survey	Survey, 2016	Every 5-10 years	TLCU, CTRL, WHO, Partners
Research reports	Previous year	Annually	NTLP, NIMR, IHI, MUHAS, Partners
TB/HIV quarterly reports from NACP	Previous quarter	Quarterly	NACP
TB/HIV annual reports from NACP	Previous year	Annually	NACP
Project specific reports from implementing partners	Previous quarter, year	Quarterly, Annually	GLRA, KNCV, MSH,ICAP, I- tech, University of Maryland,

The registers have already been revised according to the 2013 WHO new case definitions, except for those initially lost to follow-up.

Data Flow diagram



c. Data management

In Tanzania, both paper and electronic (ETR.net) TB data collection tools are being used. Each quarter, at district level, the District TB and Leprosy Coordinators (DTLCs) or TB/HIV officers compile the TB/Leprosy data and present the report to the Council Health Management Team (CHMT) members in quarterly meetings. A copy of the report is sent to the District Medical Officer (DMO). Per region, the district reports (customized in DHIS2) are compiled and entered into DHIS2 system. The RTLCs review the report and approve them. The TLCU is only allowed access to the report in DHIS2 after approval by the RTLC. The TLCU uses the RTLC data and reports for aggregation, analysis and reporting.

The report is at the same time presented, checked, revised and verified during RTLC and DTLC quarterly meetings. Exchange and data sharing to address transferred cases is done during these meetings as well. The final treatment outcome data of transferred cases is finally sent to the concerned regions.

d. Data Quality Assurance

Data quality assurance activities are conducted to ensure that the data collected are accurate, reliable and time bound. The main activity is integrated supportive supervision by DTLCs at district level with the aim to provide technical support to health workers.

At M&E training sessions, organized by NTLP or partners, the focus is on data collection, data analysis, interpretation, and the use of data for decision making and programming.

Data verification takes place during the RTLC meetings, DTLCs and TB/HIV officers exchange TB registers to ascertain and validate data from district level before submitting them to national level. TLCU performs quarterly audits and feedback is sent to the respective districts.

e. Health Management Information System (HMIS)

The HMIS includes two indicators on TB: case detection (Case notification rate) and proportion of cases with treatment success rate (combining cure and treatment completion) and one for leprosy: Treatment completion rate. Additionally, the NTLP reports on five HIV indicators; the National Aids Control Programme (NACP) reports on three TB indicators. The three TB indicators are:

- Number of PLHIV screened for TB;
- Number of PLHIV who started in TB treatment;
- Number of PLHIV who started IPT.

The first two indicators were included in 2011; the last indicator in 2013.

At district level, Health Facilities Information exchange meetings comprising of staff from TB, CTC, and PMTCT clinics conducted on quarterly basis to exchange records on individual TB/HIV patients.

At facility level, Health Facilities Information exchange meetings conducted on monthly basis are used to exchange records on individual TB/HIV patients. Tanzania still uses mainly paper-based TB notification system, with individual data available up to district level. Only aggregated data is reported to national level. An electronic system has been started but not yet fully implemented (see paragraph x).

f. Coordination

Coordination of the M&E functions is done at various levels of the programme.
The Ministry of Health and Social Welfare (MOHSW) plays a key role in coordinating the HMIS for all diseases.

At national level, the TLCU has the mandate to monitor and evaluate TB and Leprosy activities in the country. The TLCU also provides technical support and guidance, and supportive supervision. TLCU ensures that data collected is in an agreed format and on time.
The coordination at regional and district levels is the responsibility of RTLCs and DTLCs respectively. For a more detailed description of roles and responsibilities at the different levels, see Annex II.

g. Partnerships for M&E

The NTLP is currently reporting to several agencies, such as the CCM for GF, WHO, CDC/PEPFAR for TB/HIV, and several regional bodies like ECSA and SADC. Starting in 2015, NTLP has to report to USAID regarding Challenge TB.

Only a few organizations are reporting directly to NTLP on their TB activities. Other organizations implement TB activities but do not routinely report to NTLP. To strengthen this, the NTLP has the intention to intensify partner coordination.

3. Recent recommendations on M&E

A detailed review of the surveillance system of the NTLP was carried out in November 2013 by CDC, Atlanta, USA and WHO, Geneva, which also assessed the M&E system against the recent WHO standards and benchmarks. The review identified the following immediate priorities:

- To roll out new recording and reporting forms in line with the 2013 WHO revisions of the case definitions;
- To recruit specific M&E staff;
- To decide on an electronic data surveillance system;
- To carry out annual national data quality audit;
- To use the prevalence survey data to understand better the barriers to access to care for high-risk groups and key affected populations.

The 2014 Joint External Programme Review report made the following major recommendations:

- The NTLP should urgently implement at least the priority recommendations of the surveillance review team, November 2013;
- The NTLP should ensure the budget, the HR and the associated costs, for the regular and effective supervision from national to region, region to district and district to health facilities (HFs) with written feedback and use of checklists;
- The NTLP and academic partners should introduce good data management and analysis practices and data quality assessments, through strengthening capacity at central level (followed by provincial and district level expansion) in order to promote the critical review of routine surveillance data, ensure their use for policy change and improve data quality through regular dissemination of findings at all levels;

- The NTLP should set up a technical group, including consultants, to assess the bottlenecks to roll-out of ETR.Net and describe a clear way forward for the scale-up of an electronic case-based system, including assuring adequate technical backup;
- The NTLP should consider the adaptation of registers that will allow for the estimation of initial loss to follow-up (previously initial default) (in line with 2013 WHO revision of recording and reporting forms);
- The NTLP should explore the introduction and scale-up of an “Electronic Leprosy Register” at district level, to allow for case-based capture of leprosy patients and as means to identifying high endemic areas.

Part II: M&E Plan to monitor progress of the TB epidemic and implementation of the NSP

1. Objective of the M&E component of the NSP

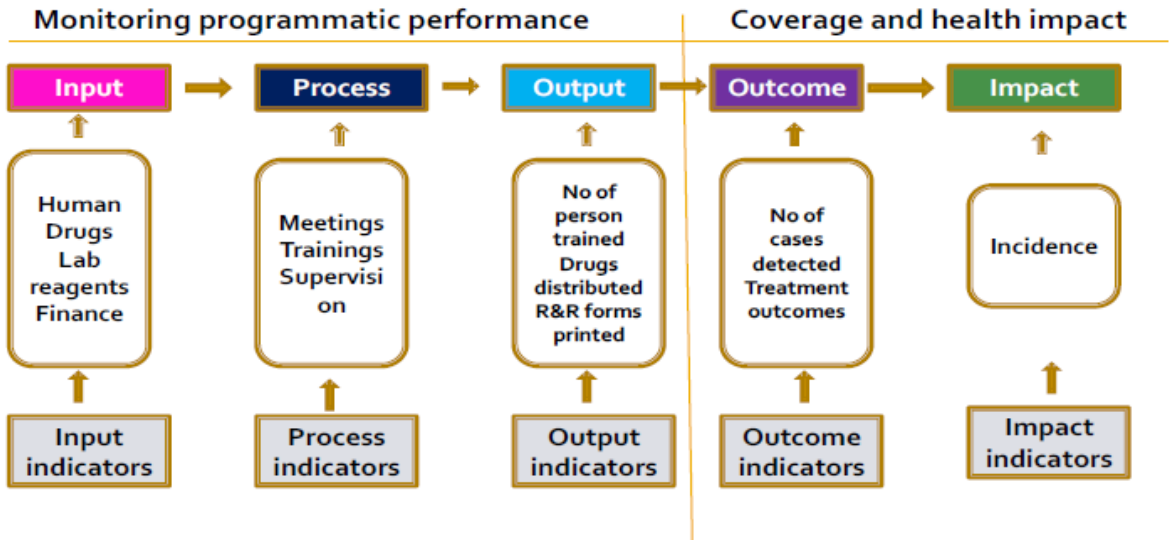
Objective:

- To institute an efficient and integrated M&E system that ensures all indicators listed are tracked and reported timely.

2. Indicators

The M&E framework follows the logical approach of monitoring inputs, processes and outputs, and assessing coverage of TB services and the impact they provide (Figure 1).

Figure 1 – Logical framework sequence



The major indicators for monitoring the plan and its impact are listed in the M&E Framework. The indicators follow the objectives and strategic interventions from the Core Plan, using the same numbering system.

Table 2: M&E Framework

M&E Framework NSP NTLP Tanzania

Goal - *To reduce the tuberculosis epidemic and burden and leprosy disabilities in Tanzania by 2020.*

Targets*:*

I. 20% reduction in tuberculosis incidence rate
II. 35% reduction in number tuberculosis death

Note:
The GF includes n targets TB prevalence rather than incidence.

TB incidence is very difficult to measure, let alone a decrease over a relative short period of time. Therefore it is suggested to use either of two options as an indication of incidence.

1. Use the WHO incidence rate from the latest WHO TB Report
2. Use the TB notification rate as a proxy for incidence.

In order to ensure the notification rate to be as complete as possible, NTLP is considering doing an inventory study, which aims at estimating under-notifications.

Impact indicators:

1. TB incidence rate
2. TB mortality rate

Impact Indicators

No.	Indicator[1]	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
0.i.1	TB prevalence rate (per 100,000 population) (GF TB I-1:)	2012	295	295			295			Tanzania Prevalence survey	Impact
0.i.2	TB mortality rate (per 100,000 population) (GF TB I-3:)	2013	12	10			8.6			Annual, WHO TB global report	Impact

Objective 1 – *to increase TB case detection by 29% by 2020 by strengthening routine notifications and addressing vulnerable groups of the elderly, prisoners, miners and diabetics.*

No.	Indicator[2]	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
Target i – TB case (all forms) detection rate increased from 56% to 72% by 2020											
1.i.1	Number of notified cases of all forms of TB – bacteriologically confirmed plus clinically diagnosed, new and relapses (GF DOTS-1a)	2013	64,053	69,230	71,866	74,645	77,509	80,484	83,572	TB quarterly reports	Coverage/output
1.i.2	Number of notified cases of bacteriologically confirmed TB, new and relapses NB. Currently only SM+ but increasingly expect Xpert+ (GF DOTS-1b)	2013	25,666 (only sm+) =39% of above	42% of above = 29,824	45% of above = 33,222	50% of above = 38,330	55% of above = 43,781	60% of above = 49,594	65% of above= 55789	TB quarterly reports	Coverage/output

[1] Definitions of the indicators can be found in Annex III

[2] Definitions of the indicators can be found in Annex III

No.	Indicator[2]	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
1.i.3	Case notification rate per 100,000 population – bacteriologically confirmed plus clinically diagnosed, new and relapse cases (GF TB O-1a)	2013	139	139	139	141	142	144	145	Annually	Outcome
1.i.4	Case notification rate per 100,000 population – bacteriologically confirmed, new and relapse cases (GF TB O-1b)	2013	52	58	63	70	78	86	94	Annually	Outcome
1.i.5	Percentage of newly notified TB patients tested using Xpert	2013	N/A			15			50	TB quarterly reports	outcome
Target ii – The treatment success rate for all categories of TB is maintained at 90%											
1.ii.1	Treatment success rate – all new cases (disaggregated by age <15, 15+, sex, and HIV status) (GF TB-O2a)	2012 cohort	90%	90%	90%	90%	90%	90%	90%	TB quarterly reports	Outcome
1.ii.2	Treatment success rate – bacteriologically confirmed new cases (disaggregated by age <15, 15+, sex, and HIV status) (GF TB-O2b)	2012 cohort	90%	90%	90%	90%	90%	90%	90%	TB quarterly reports to be adapted	
Target iii– Facilities with TB diagnostic services that are quality assured increased from 50% to 95% by 2020											
1.iii.1	Percentage of laboratories that process TB samples that are part of the external quality assurance system	2012	50%	60%	70%	80%	85%	90%	95%	External quality assurance report Annually	Coverage/output

Objective 2 – *to increase the percentage of childhood TB cases notified in the country from 10.6% to 15% by 2020 by integrating TB services into RCH, CTC and active case finding*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	value	2015	2016	2017	2018	2019	2020		
Target i – Percentage of childhood TB cases among all cases increased from 10.6% to the national target of 15% by 2017											
2.i.1	Number of notifications of TB among children 0-14 years of age, nationwide	2013	6,658	8,004	8,735	9,510	10,332	11,202	12,124	TB quarterly reports	Outcome
2.i.2	Percentage of children < 5 years of age in contact with TB patients who began IPT (GF: TB-DOTS 5)	N/A	N/A	30%	40%	50%	60%	70%	80%	TB quarterly reports	Coverage/output
Target ii – childhood TB and TB/HIV services integrated in 75% of facilities providing maternal and newborn child health care by 2019											
2.ii.1	Percentage of facilities providing maternal and newborn child health care that provide childhood TB and TB/HIV services	2014	30%	50%	60%	70%	73%	75%		Annually	Outcome
2.ii.2	Percentage of children TB patients referred from RCH clinic	2014	Not available	N/A	1%	2%	3%	4%	5%	RCH/PMTCT/NACP annual report	outcome

Objective 3 – *to increase MDR-TB cases detected and enrolled for treatment from 17% to 84% of the estimated total MDR-TB[3] cases by 2020 by scaling up new diagnostic technologies and decentralizing MDR-TB services*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	**value**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**		
Target i – increase number of facilities providing MDR-TB services from 1 to 7 Regional Referral Hospitals by 2020											
3.i.1	Number of Regional Referral Hospitals providing MDR-TB services, nationwide	2014	1	2	3	4	5	6	7[4]	TB report, annually	Coverage
Target ii – the treatment success rate of MDR-TB is maintained at 75% or higher by 2020											
3.ii.1	Treatment success rate of MDR-TB: Percentage of bacteriologically confirmed drug resistant TB cases (RR-TB and/or MDR-TB) successfully treated (GF TB-O4)	2013	75%	≥ 75%	≥ 75%	≥ 75%	≥ 75%	≥ 75%	≥ 75%	NTLP report quarterly	Outcome
Target iii – the percentage of previously treated patients with a DST (Xpert or culture & DST) increased from 10% to 100% by 2020											
3.iii.1	Percentage of previously treated TB patients receiving DST (GF MDR TB-1)	2013	10%	30%	50%	70%	80%	90%	100%	NTLP report quarterly	Outcome
3.iii.2	Number of bacteriologically confirmed, drug-resistant TB cases (RR-TB and/or MDR-TB) notified	2013	102	269	349	435	511	593	680	NTLP report quarterly	Outcome

[3] MDR-TB estimates are based on notifications

[4] Kibong'oto, Mbeya, Muhimbili, Bugando, Dodoma, Ukonga prison, Mnazi Mmoja (Zanzibar)

	(GF MDR TB-2)										
3.iii.3	Percentage of bacteriologically confirmed, drug resistant TB cases (RR-TB and/or MDR-TB) that began second-line treatment (GF MDR TB-3)	2013	80	85	86	87	90	95	100	NTLP report quarterly	outcome
3.iii.4	Percentage of drug resistant TB cases (RR-TB and/or MDR-TB) started on treatment who were lost to follow up at six months (GF MDR TB-4)	Cohort 2011	0%	2012 cohort 0%	2013 cohort < 10%	2014 cohort < 10%	2015 cohort < 10%	2016 cohort < 10%	2017 cohort < 10%	NTLP report quarterly	outcome
3.iii.5	Percentage of DST laboratories that show adequate performance on external quality assurance (GF MDR TB-5)		1/1	1/2	2/2	2/3	3/3			EQA report	output

Objective 4 – *to expand TB/HIV collaborative activities by ensuring that all TB patients are tested for HIV and those who test HIV positive are put on ART promptly and managed*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	value	2015	2016	2017	2018	2019	2020		
Target i – the percentage of TB patients tested for HIV increased from 83% to 90% by 2017											
4.i.1	Percentage of TB patients who had an HIV test result recorded in the TB register (GF TB/HIV-1)	2014	83%	86%	88%	90%	95%	95%	95%	TB register	Coverage/output
Target ii – uptake of ARV among TB/HIV co-infected patients increased from 73% to 100% by 2020											
4.ii.1	Percentage of HIV-positive registered TB patients given anti-retroviral therapy during TB treatment (GF TB/HIV-2)	2013	73%	75%	80%	85%	90%	95%	100%	TB register	Coverage/output

Objective 5 – *to establish the magnitude of TB and increase case notification rate within the mining sector by 2020*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	value	2015	2016	2017	2018	2019	2020		
Target i – Harmonized National Policy on TB in mining sector in place by 2016											
5.i.1	Policy developed and endorsed	2014	N/A	Policy prepared	Policy endorsed	Policy implemented				Annually	Output
Target ii – Estimates of the prevalence of TB in mines and surrounding communities in place by 2016											
5.ii.1	Estimated prevalence of TB in mining areas and the surrounding communities	N/A	N/A	Screening policy for mines developed	Screening policy endorsed by mining sector	Estimate of prevalence in mines				Once in 2016	Impact
Target iii – coordination mechanism of TB in mining sector in place in 2015											
5.iii.1	Coordination mechanism established	2015	Established at national level	Established at subnational level						Once in 2015	Output

Objective 6 – *to reduce new leprosy cases with disability grade 2 from 0.7 to 0.3 per 100,000 populations by 2020 by enhancing early case finding and treatment of leprosy patients*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
Target i – leprosy eliminated in 19 high endemic districts by 2019											
6.i.1	Number of high endemic districts that reach elimination target of 1/10,000 population	2013	22	18	16	14	13	12	12	NTLP report Annually	Impact
Target ii – disability grade 2 among newly diagnosed leprosy patients decreased from 12.9 to 7% by 2020											
6.ii.1	Percentage of patients with disability grade 2 among newly diagnosed leprosy patients	2013	11.9%	11%	10%	9%	8%	8%	7%	NTLP report Annually	Impact
6.ii.1	Percentage of children notified among new cases	2013	5%	4.5%	4%	3.5%	3%	2.5%	2%	NTLP report Annually	Impact

Objective 7 – *to support implementation of good quality, accessible and equitable TB and leprosy services in the country by 2020 through health and community systems strengthening and good programme management*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
Target i – contribution of TB patients notified by community health workers increased from 14% to 20% by 2019											
7.i.1	Percentage of notified TB cases, all forms, contributed by non-NTP providers – community referrals (GF DOTS-7c)	2013	14%	15%	16%	18%	19%	20%		Quarterly reports Annually	Outcome
7.i.2											
Target ii – contribution of leprosy patients notified by community health workers increased from 0% to 15% by 2019											
7.ii.1	Percentage of leprosy suspects referred by community health workers	2013	N/A	2%	4%	6%	10%	15%		Quarterly reports Annually	Outcome

7.ii.2	Percentage of leprosy patients diagnosed among community referrals	2013	N/A	5%	8%	12%	15%	20%	25%		Outcome
Target iii – number of districts with high burden of leprosy implementing community-based leprosy care increased from 6 to 19 in the country by 2020											
7.iii.1	Number of districts reporting on community-based leprosy care outcomes	2014	6	8	10	12	15	17	19	Annually	Coverage

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	value	2015	2016	2017	2018	2019	2020		
Target iv – Percentage of TB cases notified by the private sector increased from 6% to 15% by 2020											
7.iv.1	Percentage of notified TB cases, all forms, contributed by– private for profit. (GF DOTS-7a)	2013	6%	6%	8%	10%	12%	14%	15%	Quarterly reports Annually	Coverage/output
Target v – Percentage of registered private health facilities providing the full range of TB services increased from 10% to 25% by 2020											
7.v.1	Percentage of registered private for profit health facilities providing the full range of TB services	2013	10%	15%	17%	19%	21%	23%	25%	Annually	Coverage/output
Target vi – 50% of health facilities have the minimum human resources for TB available to implement TB NSP V at all service delivery levels by 2020											
7.vi.1	Percentage of health facilities with at least one trained staff for TB available at all service levels	2013	40%						50%	Annually	Coverage
Target vii – 100% of reporting units providing TB and leprosy services reporting no stock outs of TB and leprosy commodities on the last day of each quarter by 2019											
7.vii.1	Percentage of districts reporting no stock out of first-line anti-TB drugs on the last day of the quarter	2013	100%	100 %	100%	100%	100%	100%	100%	Quarterly report Annually	Coverage/output

	(GF DOTS4)										
7.vii.2	Percentage of districts providing leprosy services that report no stock outs of leprosy commodities	2013	100%	100 %	100%	100%	100%	100%	100%	Quarterly report	Coverage/output
Target viii - Social and financial consequences and main drivers of cost for TB affected households determined and addressed by 2020											
7.viii.1	Percentage of TB affected household that experience catastrophic cost due to TB	2012	NA	NA			TBD			Once in 2017	Outcome

Objective 8 - *To institute an efficient and integrated M&E system that ensures all indicators listed are tracked and reported timely*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		Year	Value	2015	2016	2017	2018	2019	2020		
Target i – Transition from paper based to electronic register completed in all districts by 2018											
8.i.1	Percentage of districts that have moved from paper based to electronic register	2014	40%	40%	60%	80%	100%			Annual reports; annually	Coverage
Target ii - By 2020, all districts submit complete reports within 45 days after the end of previous quarter											
8.ii.1	Percentage of districts that report timely after each quarter	2014	72					80%	100%	Quarterly report submission dates; Quarterly	Coverage/output
Target iii – National DRS performed by 2016											
8.iii.1	Protocol developed, data collected, data analyzed, report written	2013	0	DRS started	DRS completed	DRS report completed in quarter 1				DRS report; At the end of survey	Output
Target iv – TB mortality in Tanzania estimated by 2019											
8.iv.1	Data set to be captured in vital registration system and community programs developed	2014	N/A		Data set developed					Vital registration system	output
8.iv.2	Data set to be captured in vital registration system and community programs integrated in registration systems	2014	N/A			Integrated in registration systems		TB mortality estimated		Vital registration system/community programs; annually	output

Objective 9 - *To increase collaboration between the program, research and academic institutions on operational research in supporting program decisions*

No.	Indicator	Baseline		Performance target						Data source & frequency	Indicator type
		year	value	2015	2016	2017	2018	2019	2020		
Target i – NTLP coordinating operational research											
9.i.1	Number of operational research projects conducted	2014	2	2	2	2	2	2	2	Annual report	Output
9.i.2	Number of research findings (coordinated by NTLP) published, disseminated and used for decision making	2013	0	2	2	2	2	2	2	Pubmed	Impact

Part III: M&E Action Plan

Human resources for M&E

In order to perform the M&E activities and to be able to analyze and use the data for decision making on TB strategies, NTLP has established an M&E unit. Presently, the unit has seven staff: one data manager, five data clerks, and one IT person.

For current and future M&E activities, NTLP needs additional staff. The M&E coordinator position is vacant at the moment and being advertised. In addition, the M&E unit needs one epidemiologist, one statistician, and one extra data manager. Ideally, the epidemiologist position could be combined with the M&E coordinator position. Furthermore, it is envisioned that one of the positions could take up the role of research coordinator at the same time.

1. Capacity building and supervision

Capacity building will be an essential activity in the new NSP as new approaches and ways of doing things are developed and implemented (e.g. new recording and reporting forms, electronic surveillance system, contact investigation, decentralization of PMDT, approaching the mining sector). The key challenge will be expanding a number of activities from projects in a limited number of districts to routine services nationwide.

As for monitoring the implementation of the new NSP, the TLCU will train national and sub-national staff on M&E. Surveillance data and Operational Research findings will be disseminated during the coordination meetings at national and regional levels for improving TB and Leprosy control services.

At the quarterly regional and annual national meetings, standardized approaches for implementation and monitoring programme activities will be introduced.

Supportive supervision is one of the key elements of TB control. It should be a high priority among the core activities. However, the recent Program Review noted with great concern that the current supervisory and coordination of the NTLP has not been properly maintained, due to lack of staff and budget. To address this, more resources (human and financial) are needed. Additionally, NTLP will train and re-train national and sub-national staff on M&E. And, regular and effective supervision and mentoring will be conducted at all levels (health facility to national level): (at least twice yearly) supervisory visits from the TLCU to regions and districts, quarterly supervision of a DTLC by the RTLC, and quarterly meetings of all DTLCs with the RTLC at regional level, and monthly visits of the DTLC to the AFB diagnostic centers in the district and quarterly to all treatment centers in the district. Quarterly regional and annual national meetings will be held to monitor standardized implementation and program activities. The meetings will involve RTLCs and DTLCs, pharmacists, laboratory technologists, TB/HIV officers, partners and other stakeholders.

2. Building up the M&E system

It is increasingly important that targets be reached in order to secure external support to programmes. Donors, including the Global Fund, are increasingly insisting on M&E systems that can accurately report the number of TB cases and deaths from TB, and therefore can accurately report on how the programme is performing. Electronic data management is an essential component to ensure

reliable results of an M&E system. Benefits include better data quality, reduced workload, data access, timeliness, flexibility, and data analysis. One of the main priorities for M&E is to improve and roll out the electronic TB data management system, ETR.net, which was introduced in districts.

In order to improve the quality of the M&E system, the WHO "Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration Systems"[5] will be introduced in the M&E training package. These are 13 nationwide standards that assess the ability of the national surveillance system to accurately measure TB incidence and mortality. Some of those 13 standards can be used also at regional/district level. They help to show which parts of the system need improvement. Inventory studies will be needed to assess underreporting.

3. Programme and performance evaluation

Donor funding is more and more linked to performance and the achievement of targets. Achieving the targets set out in the M&E plan is therefore essential.

The NTLP, in collaboration with donors and partners, will be involved to initiate and organize the following activities:

- National Drug Resistance Survey
- TB Program Reviews
- Strategic Plan development
- Annual action plan development

In addition to these two major activities, NTLP shall re-instate its annual meetings with Regional and District level to analyze the results and make evidence-based decisions

4. Data verification and Quality Assurance

The current data verification and quality assurance will be continued in the next plan period. However, special attention will be given to supportive supervision and guidance, as this has not been maintained properly in recent years. Also, the quarterly meetings for DTLCs and annual meetings for RTLCs will be resumed as they serve as a platform for discussion, exchange of ideas and information and experience sharing.

At the same time, TLCU focus on bringing its M&E department up to standards to fulfill its mandate. Priority will be to recruit competent M&E staff.

[5] WHO/HTM/TB/2014.02

Annex I Tools for data collection

I (A) TUBERCULOSIS TOOLS FOR DATA COLLECTION

TB 01: Tuberculosis Treatment Card
TB 02: Kadi ya kifua kikuu (TB Identification Card)
TB 03: Tuberculosis Unit Register
TB 04: Tuberculosis District Register
TB 05: Tuberculosis Laboratory Register
TB 06: Request and reporting form for TB culture and Drug Susceptibility Test
TB 07: Tuberculosis Quarterly Case Notification Report Form
TB 08: Tuberculosis Drugs and Supplies Calculation and Order Form
TB 09: Tuberculosis Quarterly Treatment Results Report Form
TB 11: Quarterly report of treatment results of transferred-in TB and TB/HIV patients notified in the quarter ending 12 months earlier
TB 12: Fomu ya watu (wateja) waliofanyiwa uchunguzi wa **awali** wa TB katika Jamii (form for TB screening in the community)
TB 13: Rejesta ya Wanaohisiwa kuwa na TB katika Jamii (Community presumptive TB Registers)
TB 14: Fomu ya Taarifa ya Robo Mwaka ya Kikundi cha Jamii cha Huduma za TB (community TB services quarterly report form)
TB 16: Fomu ya rufaa ya huduma ya TB katika jamii (remains in MDR-TB05)

I (B) Electronic TB Register software for capture and analysis of TB patient records

EQA Form 1: Blinded Re-checking of sputum smear Examinations for Acid-Fast Bacilli
EQA Form 2: Re-checking of sputum smears for AFB, List of discordant
EQA Form 3: Re-checking of sputum smears for AFB, Consolidated report form
EQA Form 4: AFB laboratory performance quarterly/Annual Report Form
EQA Form 5: AFB laboratory performance and stocks of consumable quarterly report
EQA Form 6: AFB smear microscopy supervision

I (C) MDR TB TOOLS

MDR TB 01: MDR TB Treatment Card
MDR TB 02: MDR TB Patient Identity Card
MDR TB 03: MDR TB Suspect Register
MDR TB 04: MDR TB District Register
MDR TB 05: MDR TB Laboratory Culture and DST Register
MDR TB 06: MDR TB Referral/Transfer Form
MDR TB 07: MDR TB Daily DOT Record
MDR TB 08: MDR TB Drug Request Form
MDR TB 09: Drug-resistant TB Monthly Treatment Follow-up Form
MDR TB 10: Annual report of treatment outcomes of confirmed MDR TB patients starting second line treatment (form 14)
MDR TB 11: Six month interim outcome assessment of confirmed MDR TB cases (form 18)

II (C) LEPROSY TOOLS

LEP 01: Leprosy Patient Record Card
LEP 02: Kadi ya Ukoma

LEP 03: Leprosy Unit Register
LEP 04: Leprosy District Register
LEP 06: POD Register
LEP 07: Leprosy Quarterly Case Notification Report Form
LEP 08: Leprosy Drugs and Supplies Calculation and Order Form
LEP 09: Leprosy Quarterly Treatment Results Report Form
LEP 10: Annual Report on Prevention of Disabilities
LEP 11: Treatment Outcome of Transferred Leprosy Patients

III (D) TB AND LEPROSY COMBINED FORMS

TB/LEP 01: Request and Report Form for Smear Examination
TB/LEP 02: Fomu ya Rufaa / Uhamisho (Referral form)
TB/LEP 03: Regional TB and leprosy Drug, Laboratory Material, Stationery Stock Position Report Form

Annex II Roles and responsibilities

Tuberculosis and Leprosy Central Unit

i. Guiding and supervising data collection, processing and analysis at different levels and facilitate partnerships, networking and collaboration between different stakeholders and NTLP.
ii. Supervision and provision of technical support and guidance to monitoring and evaluating national activities and tracking progress made at all levels.
iii. Creation of a functional M&E system for TB and Leprosy, with a database that links with other HMIS systems.
iv. Participate in the supervision and data auditing of various reporting agencies to ensure that the data provided is audited, verified and it is credible. It also supports the agencies in data collection, analysis and a reporting.
v. Develop and or review standardized data collection tools, designing an appropriate methodology for data collection, information production and reporting.
vi. Develop and or review data quality assessment protocol (DQA) to guide data collection, analysis and processing
vii. Produce national reports as agreed by the national and international stakeholders and disseminate them in a user friendly and timely manner e.g. NTLP annual reports.
viii. Support capacity building and training in M& E at national and district levels. The CNLS organises supervision visits and review district's M& E systems. It also oversees M& E capacity building at the district.
ix. Establish and maintain functional linkages with other partners in TB and leprosy M& E (HMIS, PATH, GRLA, CTRL).

District and facility level

i. As a result of decentralization, TB and leprosy data collection is done at the district level by the DTLCs. TLCU ensures that data is collected in an agreed format and in time. DTLCs are expected to:
ii. Provide to TLCU an updated list of all health facilities offering TB and leprosy services in the district
iii. Coordinate and supervise M& E activities at the district
iv. Enforce use of standardised forms and registers for data collection in all health facilities in .the district.
v. Submit quarterly report to TLCU in an agreed format and in time.
vi. Advocate for the use of information products for programing activities
vii. Create awareness to the partners in the district on the TB pandemic based on TLCU information packages.

MoHSW and other partners on TB and leprosy M&E

i. The HMIS collects routine information for monitoring health and disease indicators such TB, expenditures and other management information within the health sector.
ii. Integrated disease surveillance and response (IDSR) that contributes to analysis of TB and leprosy related data.
iii. The health education unit that designs health messages.
iv. Community health desk that collaborates with HMIS unit and NTLP to develop standardized data collection procedures and reporting for community health workers.
v. The task force pharmacy that controls drug regulation ad traditional medicine
vi. The CTRL that ensures the quality control of laboratory diagnosis in the country

Annex III Indicator definitions

Impact indicators

The following three indicators will be used for impact assessments conducted every 1-3 year(s) and linked to programme reviews and grant renewals. The findings will be used to guide future strategy and investments.

Impact indicators are estimated by WHO, Geneva, and presented annually in the WHO Global TB Report.

- TB incidence rate
- TB prevalence rate
- TB mortality rate
- TB/HIV mortality rate
- MDR prevalence among new TB cases

Frequent updates of incidence, prevalence and mortality rates require large surveys, which can only be done every five years or so, hence, the use of the WHO & GF indicators. Other indicators will be used to measure progress in country.

Specific in-country indicators

Objective 1 indicators

No.	Indicator	Nominator Denominator	Comments
1.i.1	Number of notified cases of all forms of TB – bacteriologically confirmed plus clinically diagnosed, new and relapses	Number of notified TB cases, all forms, new and relapse, bacteriologically confirmed plus clinically diagnosed (in a specified period)	GF DOTS-1a
1.i.2	Number of notified cases of bacteriologically confirmed TB, new and relapses	Number of patients (new and relapse) confirmed by sputum smear microscopy, culture and isolation or WHO recommended molecular diagnostic tests (such as Xpert MTB/Rif)	Key performance indicator GF DOTS-1b
1.i.3	Case notification rate per 100,000 population – bacteriologically confirmed plus clinically diagnosed, new and relapse cases	Number of notified TB cases, all forms, new and relapse, bacteriologically confirmed plus clinically diagnosed (x 100,000) Total estimated population of the country	Key performance indicator GF TB O-1a
1.i.4	Case notification rate per 100,000 population – bacteriologically confirmed, new and relapse cases	Number of notified TB cases, all forms, new and relapse, bacteriologically confirmed (x 100,000) Total estimated population of the country	GF TB O-1b
1.i.5	Percentage of newly notified TB patients tested using Xpert	Number of newly notified TB patients diagnosed with xpert+ (x 100) Total number of newly notified TB patients	
1.ii.1	Treatment success rate – all new cases (disaggregated by age <15, 15+, sex, and HIV status)	Number of all new TB cases registered in a specified period that were cured plus the number that completed treatment (disaggregated by age <15, 15+, sex, and HIV status) Total number of all new TB cases (bacteriologically confirmed plus clinically diagnosed) registered in the same period	GF TB-O2a
1.ii.2	Treatment success rate – bacteriologically confirmed new cases (disaggregated by age <15, 15+, sex, and HIV status)	Number of bacteriologically confirmed new TB cases registered in a specified period that were cured plus the number that completed treatment (disaggregated by age <15, 15+, sex, and HIV status) Total number of –bacteriologically confirmed - new TB cases	GF TB-O2b

		registered in the same period	
1.iii.1	Percentage of laboratories that process TB samples that are part of the external quality assurance system	Number of laboratories that process TB samples that are part of the EQA system Total number of laboratories that process TB samples	The NTLP chose this indicator as first step (rather than % labs having good EQA results that can be used in future as a second step)

Objective 2 indicators

No.	Indicator	Nominator Denominator	Comments
2.i.1	Number of notifications of TB among children 0-14 years of age, nationwide	Number of notifications of TB among children 0-14 years of age	Indication of success of childhood TB efforts
2.i.2	Percentage of children < 5 years of age in contact with TB patients who began IPT	Number of children <5 years of age in contact with bacteriologically confirmed TB patients, who were prescribed a course of IPT Total number of children <5 years of age in contact with TB patients	GF: TB-DOTS 5 Indication of yield of contact investigation And/or Indication of IPT uptake among TB contacts that are children <5
2.ii.1	Percentage of facilities providing maternal and newborn child health care that provide childhood TB services	Number of facilities providing maternal and newborn child health care that provide childhood TB services Total number of facilities providing maternal and newborn child health care	Indication of childhood TB efforts Indication of coverage nationwide
2.ii.2	Percentage of facilities providing maternal and newborn child health care that provide childhood TB/HIV services	Number of facilities providing maternal and newborn child health care that provide childhood TB/HIV services Total number of facilities providing maternal and newborn child health care	Indication of childhood TB/HIV efforts Indication of coverage nationwide

Objective 3 indicators

No.	Indicator	Nominator Denominator	Comments
3.i.1	Number of Regional Referral Hospitals providing MDR-TB services, nationwide	Number of Regional Referral Hospitals providing MDR-TB services Total number of Regional Referral Hospitals	Indication of progress in decentralization of PMDT
3.ii.1	Treatment success rate of MDR-TB: Percentage of bacteriologically confirmed drug resistant TB cases (RR-TB and/or MDR-TB) successfully treated	Number of bacteriologically confirmed drug resistant TB cases (RR-TB and/or MDR-TB) cases with treatment outcome of cured or treatment completed at the end of treatment Total number of confirmed drug resistant TB cases (RR-TB and/or MDR-TB cases) initiated on treatment in the same period	GF TB-O4
3.iii.1	Percentage of previously treated TB patients receiving DST	Number of previously treated cases with drug sensitivity testing result Total number of previously treated cases in the same period	GF MDR TB-1
3.iii.2	Number of bacteriologically confirmed, drug-resistant TB cases (RR-TB and/or MDR-TB) notified	Number of bacteriologically confirmed, drug-resistant TB cases (RR-TB and/or MDR-TB) notified	GF MDR TB-2 Indicator for DR-TB case finding efforts
3.iii.3	Percentage of bacteriologically confirmed, drug resistant TB cases (RR-TB and/or MDR-TB) that began second-line treatment	Number of bacteriologically confirmed, drug resistant TB cases (RR-TB and/or MDR-TB) that began second-line treatment Number of bacteriologically confirmed, drug-resistant TB cases (RR-TB and/or MDR-TB) notified	GF MDR TB-3 Indicates MDR-TB treatment uptake. GF asks number; but % is more meaningful. In any case collect both.
3.iii.4	Percentage of drug resistant TB cases (RR-TB and/or MDR-TB) started on treatment who were lost to follow up at six months	Number of RR/MDR-TB cases that were lost to follow up at six months after starting treatment Total number of RR/MDR-TB cases that started treatment in the same period	GF MDR TB-4
3.iii.5	Percentage of DST laboratories that show adequate performance on external quality assurance	Number of DST laboratories that show adequate performance on external quality assurance Total number of DST laboratories within EQA system	GF MDR TB-5

Objective 4 indicators

No.	Indicator	Nominator Denominator	Comments
4.i.1	Percentage of all TB cases with HIV test result recorded in TB register	Number of TB cases with HIV test result recorded in TB register Total number of TB cases recorded in TB register in the same period	GF TB/HIV-1
4.ii.1	Percentage of newly enrolled HIV-positive patients who were screened for TB in HIV care or treatment settings	Number of newly enrolled HIV-positive patients who were screened for TB in HIV care or treatment settings Total number of newly enrolled HIV-positive patients in HIV care or treatment settings in the same period	
4.iii.1	Percentage of HIV-positive registered TB patients receiving ART during TB treatment	Number of HIV-positive registered TB patients receiving ART during TB treatment Total number of HIV positive registered patients that are on TB treatment in the same period	GF TB/HIV-2

Objective 5 indicators

No.	Indicator	Nominator Denominator	Comments
5.i.1	Policy on TB care among miners developed and endorsed	Yes/no	
5.ii.1	Estimated prevalence of TB in mining areas and the surrounding communities	Tb screening results among miners available from all registered mines yes/no	
5.iii.1	Coordination mechanism established on TB in mining sector	Yes/no	

Objective 6 indicators

No.	Indicator	Nominator Denominator	Comments
6.i.1	Number of high endemic districts that reach leprosy elimination target of 1/10,000 population	Number of high endemic districts that reach leprosy elimination target of 1/10,000 population	Elimination indicator.
6.ii.1	Percentage of patients with disability grade 2 among newly diagnosed leprosy patients	Number of patients with disability grade 2 among newly diagnosed leprosy patients in period Number of newly diagnosed leprosy patients in same period	Prevention of disabilities

Objective 7 indicators

No.	Indicator	Numerator Denominator	Comments
7.i.1	Percentage of notified TB cases, all forms, contributed by non-NTP providers – community referrals	Number of notified TB cases, all forms, that were referred by community health workers/members/organizations Total number of notified TB cases, all forms, in the same period	Indication of yield of community involvement GF DOTS-7c
7.ii.1	Percentage of leprosy suspects referred by community health workers	Number of leprosy suspects referred by community health workers Total number of leprosy suspects in the same period	
7.ii.2	Percentage of leprosy patients diagnosed among community referrals	Number of leprosy patients diagnosed among leprosy suspects referred by community health workers Total number of suspects referred by community health workers	
7.iii.1	Number of districts reporting on community-based leprosy care outcomes	Number of districts that report on community-based leprosy outcomes	
7.iv.1	Percentage of notified TB cases, all forms, contributed by private for profit providers facilities	Number of notified TB cases that were referred by any private for profit care provider or facility Total number of notified TB cases in the same period	GF DOTS-7a
7.v.1	Percentage of registered private for profit health facilities providing the full range of	Number of registered private for profit health facilities providing the full range of TB services	

	TB services	Total number of private for profit health facilities in the same area	
7.vi.1	Percentage of health facilities that have the minimum requirement of HR for TB available at all service levels	Number of public health facilities with at least one trained staff for TB Total number of public health facilities in the same area	
7.vii.1	Percentage of districts reporting no stock out of first-line anti-TB drugs on the last day of the quarter	Number of districts reporting no stock outs Total number of districts	GF DOTS4
7.vii.2	Percentage of districts that provide leprosy services that are reporting no stock-outs of leprosy commodities	Number of districts reporting no stock outs Total number of districts	
7.viii.1	Percentage of TB affected household that experience catastrophic cost due to TB	Number of people treated for TB (and their household) who incur catastrophic costs (direct and indirect combined) x 100 Total number of people treated for TB	

Objective 8 indicators

No.	**Indicator**	**Numerator** **Denominator**	**Comments**
8.i.1	Percentage of districts that have moved from paper based to electronic register	Number of district using the electronic register Total number of districts	
8.ii.1	Percentage of districts that report timely after each quarter	Number of districts reporting timely after each quarter Total number of reporting districts	
8.iii.1	Percentage of NTLP interventions monitored and evaluated	Number of NTLP interventions monitored and evaluated Total number of NTLP interventions	per quarter and year

Objective 9 indicators

No.	Indicator	Numerator Denominator	Comments
9.i.1	Number of operational research projects conducted	Number of OR projects	
9.i.2	Number of research findings (coordinated by NTLP) published, disseminated and used for decision making	Number of OR findings (coordinated by NTLP) published, disseminated and used for decision making	
9.ii.1	Protocol developed, data collected, data analyzed, report written	DRS prepared, implemented, analyzed and report written	
9.iii.1	Data set to be captured in vital registration system and community programs developed	Yes/No	
9.iii.2	Data set to be captured in vital registration system and community programs integrated in registration systems	Yes/No	