

GHANA HEALTH SERVICE

**MONITORING AND
EVALUATION PLAN**

National tb control programme

Monitoring and evaluation plan for NTP

INTRODUCTION

The Health System Structure in Ghana

The Health Service is organized into a three-tiered administrative system: national, regional and district levels but is five-tiered in terms of service delivery: national, regional, district, sub-district and Community Health Planning and Services (CHPS) zones. At the national level the Ghana Health Service is composed of ten main divisions. Each division has departments with responsibilities for carrying out the functions of the division. The NTP is a programme within the Disease Control and Prevention Department of the Public Health Division (one of the ten divisions). Implementation of key activities of the National Tuberculosis Programme (NTP) is organized within the 5-tier health system in Ghana.

The Ministry of Health and its agencies, particularly the Ghana Health Service, are endowed with a countrywide network of health facilities (hospitals, health centres, clinics and maternity homes) distributed within the 10 regions and 170 districts of the country. Currently, there are 321 hospitals, 760 health centres, 1124 clinics and 601 medical laboratories manned by about a total workforce of 49,138. About 83% of all health facilities in Ghana belong to the public sector, 9% to faith-based institutions and 7% to the private sector. Health management in Ghana is fairly decentralized within the MOH involving District Health Management Teams (DHMTs), Regional Health Management Teams (RHMTs) and headquarters. Complimenting this arrangement are institutional/health facility management teams. Each of these management levels is a Budget and Management Centre i.e. they are responsible for a defined programme of work supported by a defined operational budget.

The National TB control programme delivers its services within the Ministry's structures. The Central TB Unit (CTU) headed by a programme manager plays the leading role of overseeing TB control in Ghana. The CTU has a workforce of about 20 personnel inclusive of an M&E manager. The Central TB Unit spearheads the execution of the following responsibilities: advocacy and resource mobilization, providing technical leadership through the development of program policies and guidelines, planning, budgeting, supervising, monitoring and evaluation in addition

to building capacity for TB control. At the regional, district and institutional levels, implementation of the programme's activities are championed by coordinators who together with other health professionals form working teams. These TB teams are responsible for planning, budgeting, training and program monitoring through supportive supervision.

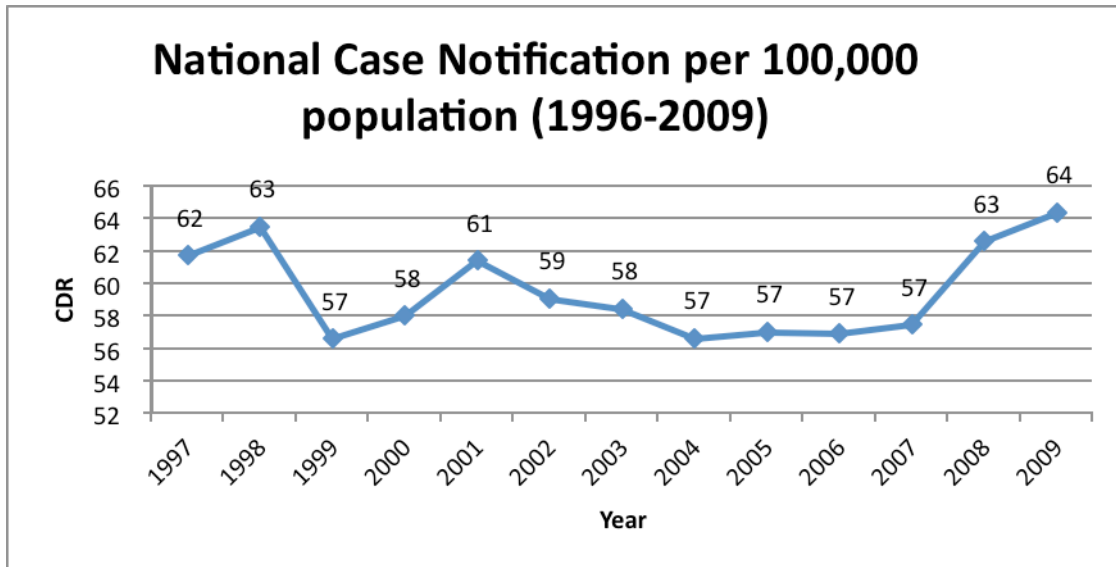
Mandate, Goal and Objective of the NTP

The mandate is to provide leadership for the health sector response to fight tuberculosis in Ghana. The goal is to reduce the burden of tuberculosis in Ghana until it is no longer a disease of public health importance. The overall objective of the NTP is to achieve the World Health Assembly (WHA), STOP TB Partnership and the Millennium Development Goal (MDG) targets of detecting at least 70% of incident smear positive TB cases and to half TB deaths by 2015 compared with the level in 1990. Presently, the NTP strategic approach is to provide universal access of TB control services to the entire population subsequently achieving a 100% case detection. The implementation of TB control services are adopted from the 6 STOP TB Strategies.

Tuberculosis Situation in Ghana

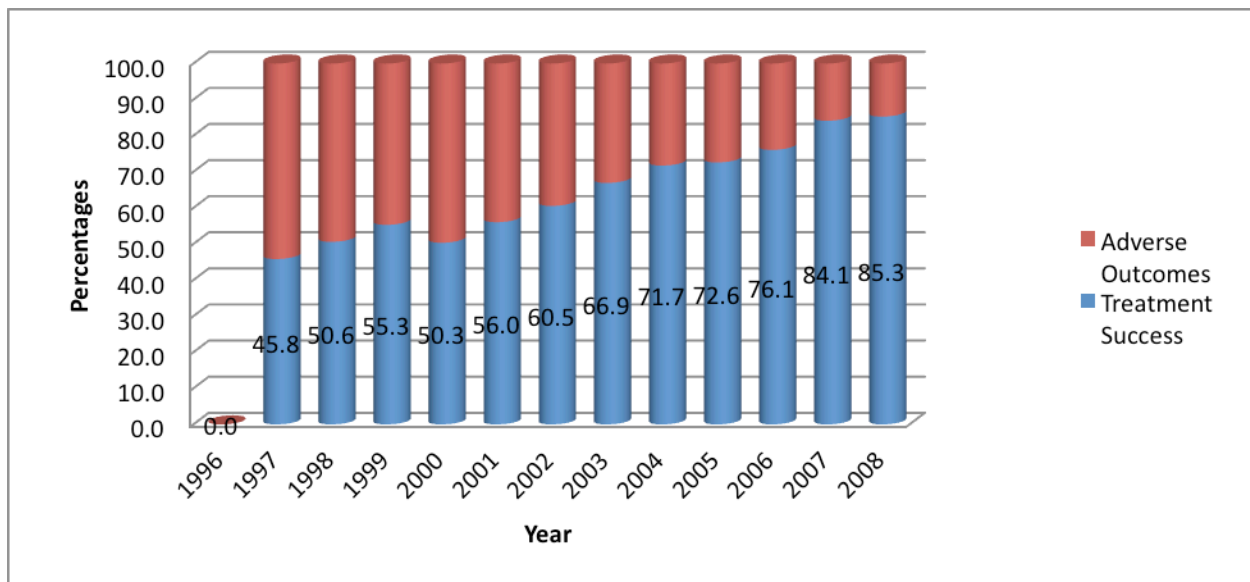
The NTP was established in 1994 and attained 100% DOTs coverage in 2005. The programme has progressively seen an increased number of cases over the years. In 1996 the reported number of TB cases was 7,425 and the number reported in 2009 is 15,286, the highest ever reported in a single year. Case notification rate is however still low at 64 per 100,000 population (Fig.1). There are regional variations in case notification with the Greater Accra Region recording the highest notification rate (82/100 000 population in 2009) and Northern Region recording the lowest notification rate of 24/100 000 population in the same year.

Figure 1: National Case notification



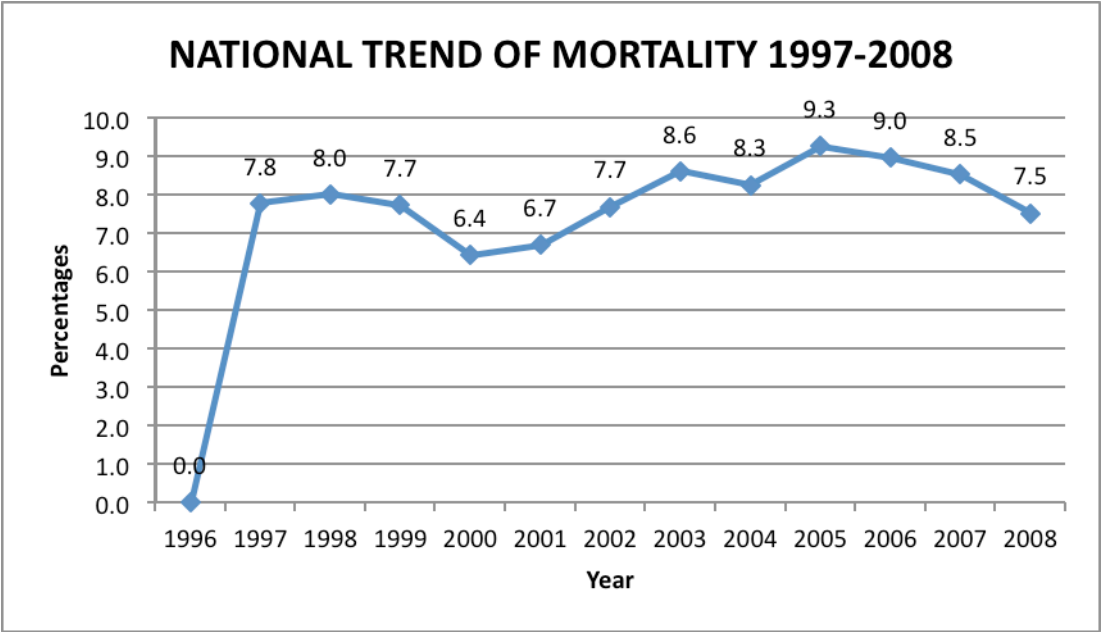
In 2009, the NTP achieved treatment success rate of 85.3% which is slightly above WHO target of 85%. Treatment success rate however varied between regions. 5 out of 10 regions have already surpassed the 85% target. Figure 2 shows the trend of treatment success over the years.

Fig.2 Treatment Success Rate



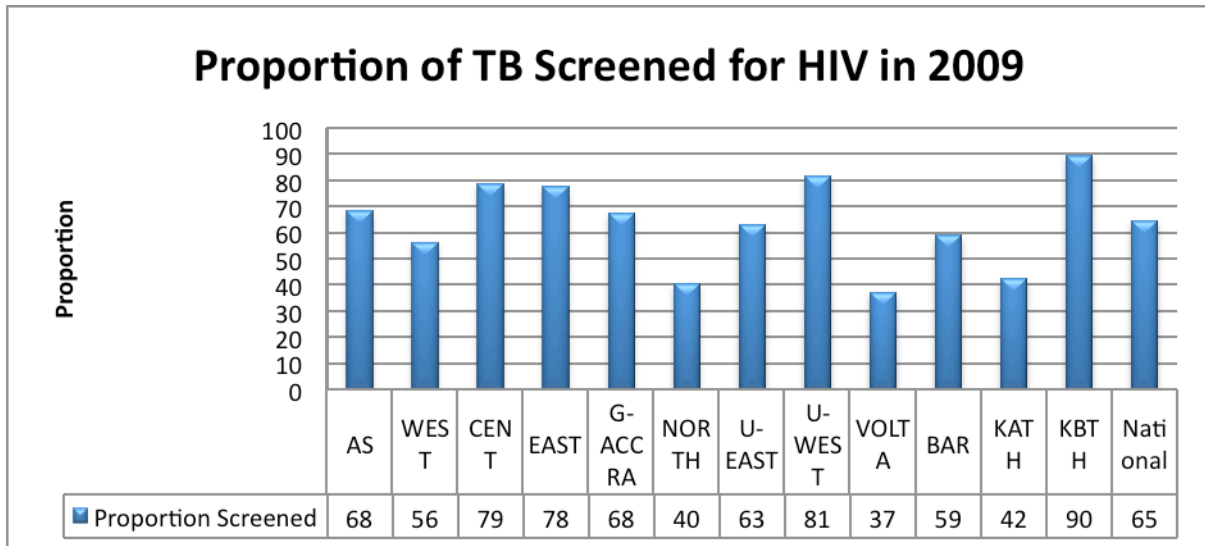
TB case fatality rate is high at 7.5% (Fig. 3) despite the low HIV prevalence (1.9%) in the general population. Regional fatality trends indicate high fatality rates of 12.5/100 000 population in 2008 in Upper East Region compared with 4.2/100 000 population in Volta Region the lowest in 2008.

Figure 3: National Mortality Trend



Ghana adopted the WHO interim policy on TB/HIV in 2005 and has been implementing most of the activities. A survey conducted in 2008 gave a TB/HIV point prevalence of 14.7%. Percentage of TB patients routinely screened for HIV increased from 40% in 2007 to 65% in 2009 (Fig.4). The percentage of HIV positive patient receiving Co-trimoxazole Preventive Therapy (CPT) reached the first ever highest peak in 2008 (87%). While percentage of HIV positive TB patients receiving anti-retroviral therapy (ART) is increasing but below 25%.

Fig 4: Proportion of TB patients screened for HIV



Monitoring and Evaluation

The NTP has a surveillance system that routinely captures data for outcomes measurement from both public and private institutions. The number of cases evaluated has improved markedly, rising from 38 percent in 1996 to 99.7 percent in 2007. The main weaknesses are manual nature of collecting and storage of data. Data analysis and use is relatively weak at operational levels.

Baseline data, input, process, output, outcome and impact indicators are monitored using existing checklist outlined in the Health Sector Strategic Plan. In existence is a mechanism for quarterly reports from all levels of service delivery, twice yearly programmatic reviews with stakeholders, annual reviews linked to sector annual reviews with partners e.g. the health sector/partners mid-term and end of term evaluations.

The NTP has adopted the new WHO recording and reporting system on TB control. While the NTP Central Unit has the technical capacities to appropriately manage the data on TB situation, these capacities are very weak at regional and district levels with resultant delays in data collection, compilation and dissemination.

Situation Analysis

The Ghana NTP has sufficient funds for supervision at all levels. Supervisory checklists incorporating key indicators have been developed but are sometimes not used. Recording and reporting forms have been revised to incorporate HIV parameters and are currently being used.

Gaps exist, particularly due to:

- Inadequate technical support to ensure good-quality supervision mainly from the Central Unit to the regions, the districts, and sub-districts
- Discrepancies of data submitted at the national level, as the data are not disaggregated according to district and facility
- Inadequate use of checklists at the regional and district levels
- Inappropriate filing system (information collected during monitoring, evaluation, and supervisory visits are kept on loose sheets of paper making that get mislaid and are therefore not available for examination)
- Supervisory visits limited in number and/or quality, especially in areas not fully benefiting from the Enablers Package
- TB registers and TB treatment card not filled in completely or containing inaccurate information, resulting in some patients having no unique district numbers
- Limited external technical assistance by partners

Objectives of the M&E Plan

General Objective

The overall objective of the M&E plan is to measure the performance of the TB programme against the set goals and targets

Specific Objectives

- To systematically monitor and measure program effectiveness
- To gather lessons from program implementation
- To identify problem areas and effect change through effective routine programme management at all levels
- To measure the impact of funding towards the achievement of programmatic goals

- To assess progress towards achieving the TB related Millennium Development Goals

Strategic Approach

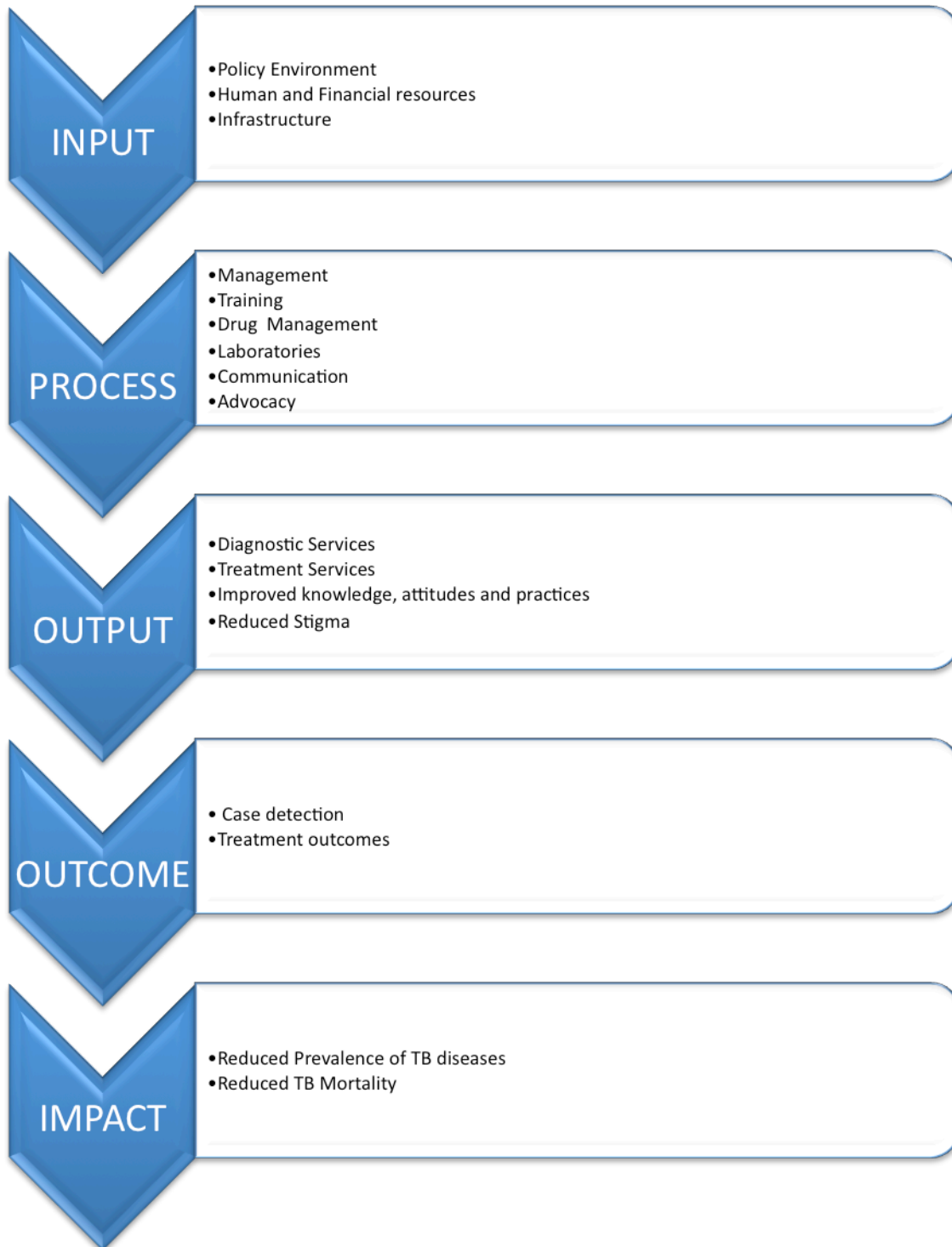
The M&E plan shall be implemented using the following strategies

- Biannual national review meetings of all stakeholders
- Regional quarterly review meetings
- District quarterly review meetings
- Routine and periodic Surveys
- Periodic Programme reviews
- Supportive supervisory visits at all levels
- Data reviews and validation

Activities

- Conduct programme review meetings at national, region and district levels
- Conduct periodic surveys for TB prevalence, drug resistance, and KAP studies
- Undertake routine surveillance for TB:
 - Review data management system
 - Establish a database at the national-level for an electronic TB data information and management system
 - Train health staff at the sub-national level to use data management system
 - Review recording and reporting forms
- Conduct supervision visits at all levels and provide feedback
- Improve supervision capacity at all levels
- Undertake recruitment processes to fill human resources gaps where needed
- Support the activities of the TB Advisory Board and other technical working groups
- Develop, produce, and distribute NTP guidelines
- Procure vehicles to support supervision, monitoring and evaluation
- Support infrastructure enhancement (upgrade/renovate medical stores, wards, and DOTS centres)
- Procure TB Technical Assistance in support of M&E

The M&E Indicator Framework



Key M&E Indicators

- Number /percentage of new smear TB cases reported
- Number / percentage of all forms TB cases reported
- Number/percentage of new smear positive cured
- Number/ percentage of new smear positive cases successfully treated
- Number/ percentage of all forms of TB cured and successfully treated
- Number/ percentage of TB patients who died during treatment
- Number / percentage of TB patients tested for HIV and recorded in the register
- Number / percentage of TB patients on ART and recorded in the register
- Number / percentage of PLHIV at HIV clinic screened for TB
- Number / Percentage TB patients positive for HIV
- Number/ percentage of HIV positive TB patients who received CPT during TB treatment
- Number / percentage of previously treated TB patients detected with MDR-TB
- Number / percentage of MDR-TB in new TB patients
- Number / percentage of health facilities implement IPC plan
- Number / percentage of health workers developing TB
- Number/ percentage of TB cases reported from prisons
- Number/ percentage of TB cases reported from private sector
- Number/ percentage of advocacy materials produced
- Number/ percentage of operational research activities conducted with findings reported
- Number/ percentage of health workers trained on TB control

Definitions of Key Outcome Indicators

Indicator	Definition	Numerator	Denominator
Case detection rate (all forms)	Number of new TB cases detected within a specified period expressed as a proportion of the estimated total number of new TB cases Countrywide	Number of new TB cases detected within a specified period	Estimated total number of new TB cases Countrywide within the same period
Case detection rate (Smear positives)	Number of new smear-positive TB cases detected expressed as a proportion of the estimated number of new smear-positive TB cases countrywide	Number of new smear-positive TB cases detected	Estimated number of new smear-positive TB cases countrywide
Treatment success rate	Number of new smear-positive pulmonary TB cases registered in a specified period that were cured plus the number that completed treatment expressed as a proportion of the Total number of new smear-positive pulmonary TB cases registered in the same period	Number of new smear-positive pulmonary TB cases registered in a specified period that were cured plus the number that completed treatment	Total number of new smear-positive pulmonary TB cases registered in the same period
Cure rate	Number of new smear-positive pulmonary TB cases registered in a specified period that were cured expressed as a proportion of the total number of new smear-positive pulmonary TB cases registered in the same period	Number of new smear-positive pulmonary TB cases registered in a specified period that were cured	Total number of new smear-positive pulmonary TB cases registered in the same period
Case notification rate	Number of new TB cases reported (* 100,000) expressed as proportion of the total population in the specified area	Number of new TB cases reported (* 100,000)	Total population in the specified area

Mortality rate	Number of new smear-positive pulmonary TB cases registered in a specified period that died during treatment, irrespective of cause expressed as a proportion of the total number of new smear-positive pulmonary TB cases registered in the same period	Number of new smear-positive pulmonary TB cases registered in a specified period that died during treatment, irrespective of cause	Total number of new smear-positive pulmonary TB cases registered in the same period
Number /percentage of new smear positive TB cases reported	Number of new smear positive TB cases registered during a specified period expressed as a proportion of the total number of new pulmonary TB cases registered during the same period	Number of new smear positive TB cases registered during a specified period	Total number of new pulmonary TB cases registered during the same period
Number / percentage of PLHIV at HIV clinic screened for TB	Number of adults and children enrolled in HIV care whose TB status was assessed and recorded during their last visit during the Reporting period, expressed as a proportion of all adults and children enrolled in HIV care and seen for care in the reporting period	Number of adults and children enrolled in HIV care whose TB status was assessed and recorded during their last visit during the reporting period	Total number of adults and children enrolled in HIV care and seen for care in the reporting period
Number / percentage of TB patients tested for HIV and recorded in the register	Percentage of TB patients who had an HIV test result recorded in the TB register	Number of TB patients registered during the reporting period who had an HIV test result ¹¹ recorded in the TB register	Total number of TB patients registered during the reporting period
Number / Percentage TB	Number of registered TB patients with documented HIV status on TB	Total number of all TB patients	Total number of TB patients registered

patients positive for HIV	register who are HIV-positive, expressed as a proportion of the total number of all registered TB patients with documented HIV status over the reporting period	registered over the reporting period with documented HIV-positive status	during the reporting period with documented HIV status
Number / percentage of TB patients on ART and recorded in the register	Number of HIV-positive TB patients who are started on or continue previously initiated ART during TB treatment, expressed as a proportion of all HIV-positive TB patients. registered over the reporting period	All HIV-positive TB patients, registered over the reporting period, who receive ART (are started on or continue previously initiated ART).	Total number of HIV-positive TB patients registered during the reporting period
Number/ percentage of HIV positive TB patients who received CPT during TB treatment	Number of HIV-positive TB patients who are started on or continue previously initiated CPT, during TB treatment, expressed as a proportion of all HIV-positive TB patients registered over the reporting period	Number of HIV-positive TB patients, registered over the reporting period, starting or continuing CPT treatment during their TB treatment	Total number of HIV-positive TB patients registered during the reporting period

Source of data for indicators

- Clients cards
- Institutional registers
- Monthly/ quarterly surveillance reports
- Review reports/ survey reports
- Supervisory reports

Review Meetings	Was there a TB programme review meeting held last quarter	Yes	No
	Is the minutes/report available?	Yes	No
Supervision	Number of sub-district/facilities supervised last quarter _____		
	Feedback reports on supervision available?	Yes	No
Training	The district has a database of health staff trained in TB	Yes	No
	Last quarter training reports are available	Yes	No
	Has the district conducted training needs assessment?	Yes	No
	If yes, list any challenges identified and if possible ways the district is strategizing to address these		
Renovations	The district has structure(s) earmarked for renovation	Yes	No
	If yes, what structures and the level of completion?		
CB DOTS	No. of districts implementing CB DOTS _____ out of _____ districts		
	No. of treatment supporters trained _____ ; No. functional _____		
	Monitoring of home-based TB care activities is done	Yes	No
	Community TB register is in use	Yes	No
PPM DOTS	Number of Private Clinics in the districts implementing TB control activities _____		
	No. of TB patients notified by the private sector _____ out of _____ patients last quarter		
TB in Prisons	Do you have a prison facility in your district?	Yes	No
	When was the last time prison inmates and staff were screened for TB		
	Is the screening outcome available?	Yes	No
NGOs	No. of NGOs working in the district on TB _____		
	Name of NGOs		
	What are the areas of intervention?		
ACSM Activities	What ACSM activities were carried out last quarter?		
	Are the reports available?	Yes	No
ACSM Activities	What ACSM activities are planned for this quarter and the level of implementation?		

Remarks / Explanation

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Recommendations

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**SUPERVISORY CHECKLIST FOR TB PROGRAMME AT HEALTH FACILITY
LEVEL**

INSTRUCTION: (FILL, TICK OR CIRCLE as appropriate)

SECTION A

Name of Supervisor(s): _____

Date of Visit: _____

Facility Name: _____

District/Region: _____

Date of last supervisory visit by Dist TB Coordinator: _____

Is feedback report available? Yes / No

Date of last supervisory visit by Reg TB Coordinator: _____

Is feedback report available? Yes / No

State the key challenges identified in last quarter's feedback reports and indicated whether they have been addressed or not?

Challenge	Status/Comment

SECTION A: RECORDING AND REPORTING OF TB ACTIVITIES

a. Client Card TB01 (Check records of at least 10 randomly selected patients)	Sputum examination result form is kept and attached to the client card (TB01)	Yes	No
	Patients are classified correctly in client cards (TB01)	Yes	No
	Patients are put on the right treatment category for patient type and weight	Yes	No
	List all other deficiencies found below:		
b. Institutional TB Register	All patients on treatment are recorded in the institutional register	Yes	No
	The institutional registers are completely and accurately filled	Yes	No
	Patient have follow-up sputum examinations at recommended interval	Yes	No
	Are TB cases that are positive at the end of intensive phase given 1 extra month of intensive phase medicines?	Yes	No
	Are failure cases at the end of month 5 or more given retreatment regimen?	Yes	No
	List all other deficiencies found:		
c. Case Holding	Defaulter Retrieval System is in place?	Yes	No
	If yes, there was _____ defaulting patient(s) last quarter of which _____ was/were retrieved		
d. ADR Forms	Adverse drug reaction forms are available and staff knows how to fill forms	Yes	No

SECTION B: TB.HIV COLLABORATIVE ACTIVITIES

a. TB Clinic	DOTS Centre staff trained in HIV Counseling and Testing	Yes	No
	DOTS Centre staff offers on-site HIV counseling and testing services to TB patients	Yes	No
	TB/HIV Collaborative activities are well documented in TB01 and institutional register	Yes	No
b. HIV Clinic	TB Screening tool is available at the HIV Clinic	Yes	No
	All HIV patients are screened for TB	Yes	No

SECTION C: LOGISTICS

a. Pharmacy/ Stores	Is there a staff designated for managing TB drugs	Yes	No
	If yes, has the staff been trained on LMIS for TB medicines?	Yes	No
	The staff has the skills and knowledge to counsel patients on TB drugs	Yes	No
	The place is adequate for storage of drugs (spacious, ventilated, waterproof and protected from direct sunlight)	Yes	No
b. TB Logistics Status	RRIRV was filled and submitted for drugs in the last review period	Yes	No
	Physical count of all TB drugs tallies with balances on bin cards	Yes	No
	There was a stock-out of TB drugs within the last 3 months	Yes	No
	There is a lab staff in charge of monitoring stock levels of TB laboratory consumables and making requisitions	Yes	No
	Requisition for lab supplies was made in the last review period	Yes	No
	All laboratory supplies are available and enough to last for 3 months*	Yes	No
	There was a stock-out of TB lab supplies within the last 3 months	Yes	No
	TB recording/reporting materials are enough to last for 3 months	Yes	No

* see annex 1 to determine adequacy of lab supplies

LOGISTICS

No	Item	Unit	Balance on Tally card	Physical count	Difference	Expiry date	Remark
TB Drugs							
1.	Category I	Kit					
2.	Category II	Kit					
3.	Category III	Kit					
4.							
5.							
6.							
7.							
8.							

No	Item	Unit	Quantity Utilized last quarter	Quantity Available	Expiry Date	Remark
Laboratory Supplies for TB microscopy						
1.	Carbol fuchsin Solution	ml				
2.	Decolorizer	ml				
3.	Counterstain (Methylene Blue)	ml				

4.	95% Alcohol	ml				
5.	Immersion oil	ml				
6.	Slides	pcs				
7.	Sputum container	pcs				
8.	Sulphuric Acid	ml				
9.						
10.						
11.						
12.						

D. LABORATORY SERVICES

a. Workplace	The laboratory has a well ventilated place designated for the performance of sputum smear microscopy	Yes	No
	The workplace is adequate for performance of sputum smear microscopy (sink, water, work bench available)	Yes	No
Personnel	Lab has personnel trained to perform sputum smear microscopy	Yes	No
b. Laboratory Register	TB laboratory register is neat, completely and correctly filled	Yes	No
	Red ink is used to indicate positive results	Yes	No
	List all other deficiencies found;		
c. Equipment	The microscope is in good working condition	Yes	No
	If not, what is wrong? (fungal growth on lens; x100 objective lens not functional, lamp not functional etc)		
d. Specimen collection	Specimens are collected with NTP approved containers	Yes	No
	The container is labeled with full details before it is handed to the patient	Yes	No
	TB Request form for Sputum examination is filled correctly	Yes	No
	3 sputum specimens are examined	Yes	No
	Patients are told to take a deep breath before coughing out sputum	Yes	No
	Turnaround time for sputum microscopy is \leq 72hours	Yes	No
	There is a functional system for tracing TB suspects who do not pick up sputum results	Yes	No
	If yes, TB suspects were traced last quarter out of		
e. Storage of Slides	Slides are stored in slide boxes for quality assurance	Yes	No
	If not, what are the challenges?		

Remarks / Explanation

Recommendations

Annex 1

Laboratory Supplies for TB Microscopy

Item	Quantity Needed per Smear (a)	Number of Smears Done Last Quarter (b)	Total Number of Supplies Needed for New Quarter (a X b)
Decolorizing Solution	5ml		
Counterstain Solution (Methylene Blue)	5ml		
Phenolic Fuchsin Solution	5ml		
Sputum Containers	1		
Slides	1		
Immersion Oil	0.1ml		
Xylene	0.1ml		