REPUBLIC OF KENYA

MINISTRY OF HEALTH

NATIONAL TB PROGRAM

MONITORING AND EVALUATION FRAMEWORK

2019-2023

NATIONAL TUBERCULOSIS, LEPROSY AND LUNG DISEASE PROGRAM

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Published by:

Ministry of Health

Afya House, Cathedral Road | PO Box 30016 Nairobi 00100

http://www.health.go.ke

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ACRONYMS

CTLCs	County TB and Leprosy coordinators
DNTLD-P	Division of National Tuberculosis, leprosy & Lung Diseases program
DQA	Data Quality Audit
DRTB	Drug resistant TB
DSTB	Drug sensitive TB
HIV	Human Immunodeficiency Virus
ICF	Intensive Case finding
IPT	Isoniazid Preventive Therapy
M&E	Monitoring and Evaluation
NSP	National Strategic Programme
NTP	National Tuberculosis Program
SCTLCs	Sub County TB and Leprosy Coordinators
TB	Tuberculosis
TC	Treatment completed
TO	Transfer out
TSR	Treatment Success Rate
UHC	Universal health coverage
WHO	World Health Organization

FOREWORD

Dr. Patrick Amoth

Kenya has made significant gains in its efforts to control and prevent Tuberculosis, Leprosy and Lung Disease in the past few years, however, much still needs to be done to ensure that these diseases are controlled and eventually eliminated. With the coming into force of this revised monitoring and evaluation (M&E) plan for the for the 2019-2013 National Strategic plan, concerted efforts need to be put together to adequately monitor the progress towards the set milestones and targets. This M&E framework builds on an integrated approach to monitoring all the diseases the NTLD-Program is mandated to prevent and control.

The National TB program and its partners developed the Kenya National TB Strategic Plan covering the period 2019-2023 in response to new evidence from the TB strategic information. Successful implementation of the national M&E framework requires all health sector implementers to dedicate their efforts on the agreed indicator definitions, disaggregation, data collection and reporting procedures, responsibilities and timelines. This will enable the country to measure progress towards set targets for NSP. . The framework has been developed through an all-inclusive and participatory approach that has cultivated countrywide interest and ownership among concerned stakeholders at national and decentralized levels.

In addition to representing an important milestone toward operationalizing the national M&E framework, this plan distinguishes priority indicators for sectoral and programme level reporting. It is envisaged that a common understanding on the core indicator set, tools and procedures will be achieved through rapid dissemination within the ministries of health and implementing agencies, while structured training will ensure compliance and generate timely, complete and accurate reports under the national M&E system. The government is committed to mobilizing resources to facilitate the rapid roll out of this document to policy makers, programme managers, service providers at all levels and other key stakeholders.

Dr. Patrick Amoth, EBS

Acting Director General of Health

Ministry of Health

ACKNOWLEDGEMENT

The National Tuberculosis and Lung Disease program of the Ministry of Health, as the responsible agency for the health sector TB related indicators, hereby acknowledges the efforts of all institutions and individuals from the government ministries and agencies, development partners, plus implementing partners at national and decentralized levels, including the private sector.

I acknowledge the National TB program staff in developing Kenya National Strategic Plan (2009-2023) and the National Monitoring, Evaluation and Research Framework, which provided the basis for TB indicator review. In particularly, I would like to thank the M&E team that participated in the consultative meetings as needed. I also acknowledge other section heads and focal persons at TB program for facilitating the thematic technical working group discussions on indicators, tools and procedures needed for tracking all interventions indicators.

As a program, we express much appreciation to our implementing partners for their continued support to the process. Special thanks to USAID supported TB ARC II, AMREF Health Africa in Kenya, Clinton Health Access Initiative and other partners who supported the National TB Program with planning, implementation and reporting on the indicator review meetings. Thank you for your continued support.

Dr. Elizabeth Onyango

Dr. Elizabeth Onyango

Head, Division of National TB, Leprosy and Lung Disease Program

Chapter 1
Introduction

1.1 Introduction

The National Strategic Plan (NSP) 2019 – 2023 lays out the strategic and technical direction for the elimination of TB, leprosy and reduction of the burden of lung disease. It presents the full aspiration of the country, including outcome and impact targets that align with international goals, and the full portfolio of activities needed to reach these goals. The targets for ending TB by 2035 are based on the End TB strategy that builds on 3 pillars; integrated, patient-centered care and prevention, bold policies and supportive systems and intensified research and innovation.

Global TB Strategy Principles and Pillars

The activities embodied under the NSP 2019-2023 address systemic and root causes of the gaps along the patient pathway, suggesting the complementary roles of county and national governments, departments across the Ministry of Health, partners and other sectors. The strategic focus of the NSP is aligned to:

1. Closing the gaps along the care continuum to find and cure all people with TB
2. Differentiated response by counties to address TB in local contexts

3. Optimizing the implementation of TB, leprosy and lung health services within UHC
4. Prevention of infection, active disease, morbidity and mortality due to TB, leprosy and lung diseases
5. Patient-centered approach that promotes quality of care

This monitoring and evaluation (M&E) plan is designed to monitor the five year NSP of 2019 -2023.

1.2 Vision and Mission for National TB Program

VISION

A Kenya free of TB and leprosy, and reduced burden of lung disease.

MISSION

To ensure provision of quality care and prevention services for all people in Kenya with TB, leprosy and lung diseases.

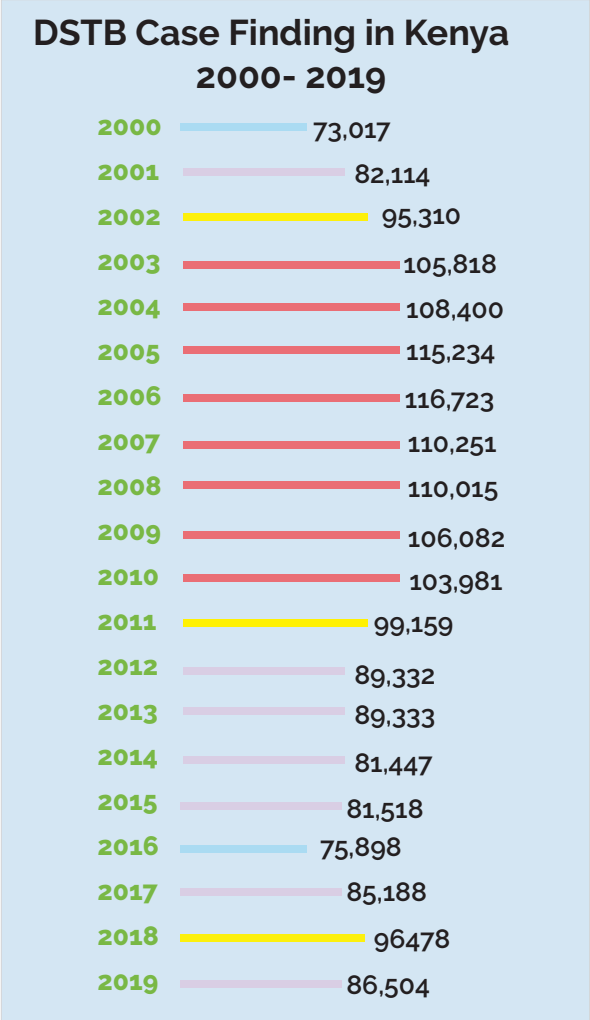
1.3 Epidemiological situation of TB in Kenya

1.3.1 Tuberculosis prevalence and incidence:

Kenya is classified as a tuberculosis, drug resistance TB (DR TB) and TB/HIV high burden country. The national TB prevalence survey of 2016 revealed that the true burden of TB in Kenya was 426 cases per 100,000 population with an annual incidence of 169,000 persons (The Kenya National TB Prevalence Survey 2016, Report). The annual decrease in TB incidence was estimated at 4% which translated to about 156,000 person who fell ill with TB in 2018. People notified with TB disease in 2018 were 96,478, resulting in about 36% of estimated individuals with TB disease not diagnosed, treated and notified in 2018 (TIBU reporting system 2019)

1.3.2 Tuberculosis case notifications:

Case notification in 2018 was 96,478 resulting in a 13% increase compared to 85,188 cases notified in 2017. The 2018 TB notifications were higher in men at 64% and highest number for men and women 25-34-year old age group. Case notification for children increased from 7,714 (9.1%) in 2017 to 10,051 (10.4%) in 2018, translating to a 31% increase.

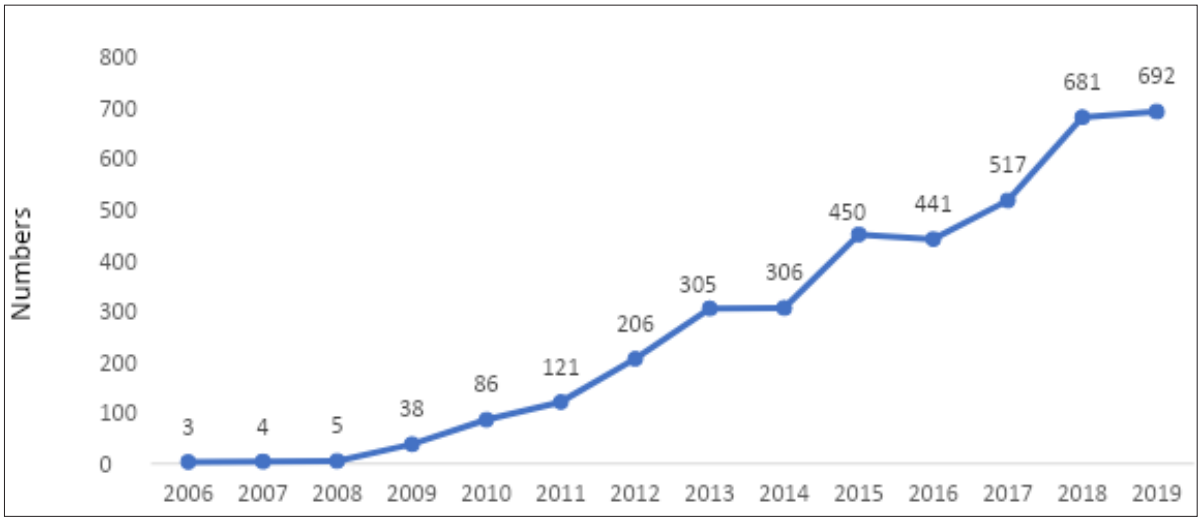


1.3.3 Treatment outcome:

In 2018 the national treatment success rate (TSR) for drug sensitive TB (DS TB) was 84% a slight improvement from 2017 with 83%. While cure rate was reported at 71%, a decline from 73% of 2017. Death rate was 6.5%, an increase in from 6.3% in 2017. Lost to follow up rate was reported to be 5.5% a slight difference from 5.3% in 2017, while those not evaluated declined to 3% from 4.6% of 2017. Children had a TSR of 89%. The declining cure rates of bacteriologically confirmed TB patients over the years may imply suboptimal monitoring and follow up of bacteriologically-confirmed TB patients and as a proxy, TB patients in general thus impacting negatively on treatment outcomes (The 2017 epidemiological review).

1.3.4 Drug resistant TB:

The drug resistant TB survey conducted in 2015, demonstrated that the burden of rifampicin resistant TB was 0.7% among new patients and 2.1% among previously treated TB patients (Kenya DRS report, 2015). There were 689 DR TB cases notified in 2018 resulting in a 19% increase compared to cases notified in 2017 (577). DR TB case detection cases have increased significantly since 2006. This was largely attributed to improved DR TB surveillance. Treatment success rate for DR-TB was 73%, 66% and 76% in 2015, 2016 and 2017, respectively.



DR TB cases notified in Kenya, 2006 -2018

1.3.5 TB mortality: (Info graphics)

In 2018, TB mortality was estimated by WHO to be 38 (22-59) per 100,000 population for HIV negative; 26 (16-38) per 100,000 population for HIV positive; and 64 (44-87) per 100,000 for all forms of TB (Global TB report, 2019).

1.3.6 TB-HIV:

In 2018, 98% of registered TB patients had documented HIV status. This is similarly high as the previous years. HIV testing was similar across the genders but slightly higher among adults (98%) as compared to children (96%). There has been a consistent decline in HIV co-infection rate among TB patients over the years with 27% reported in 2018. This is largely due to strengthened

CPT and ART uptake of 99% and 97% respectively.

The HIV co-infection rate among TB patients notified in the private health sector was 33%

1.3.7 Leprosy

Even though Kenya is in post-elimination stage for Leprosy, case notification for new cases of

leprosy continue to increase. There were 109 cases notified in 2018 with children accounting for 4.6% of the notifications. Leprosy endemic areas include Western, Nyanza, Eastern, Coast and Nairobi regions although sporadic cases are still reported in other parts of the country. Among the patients registered for treatment in 2018, 23% were with grade 2 disability at the time of diagnosis.

1.3.8 Lung health

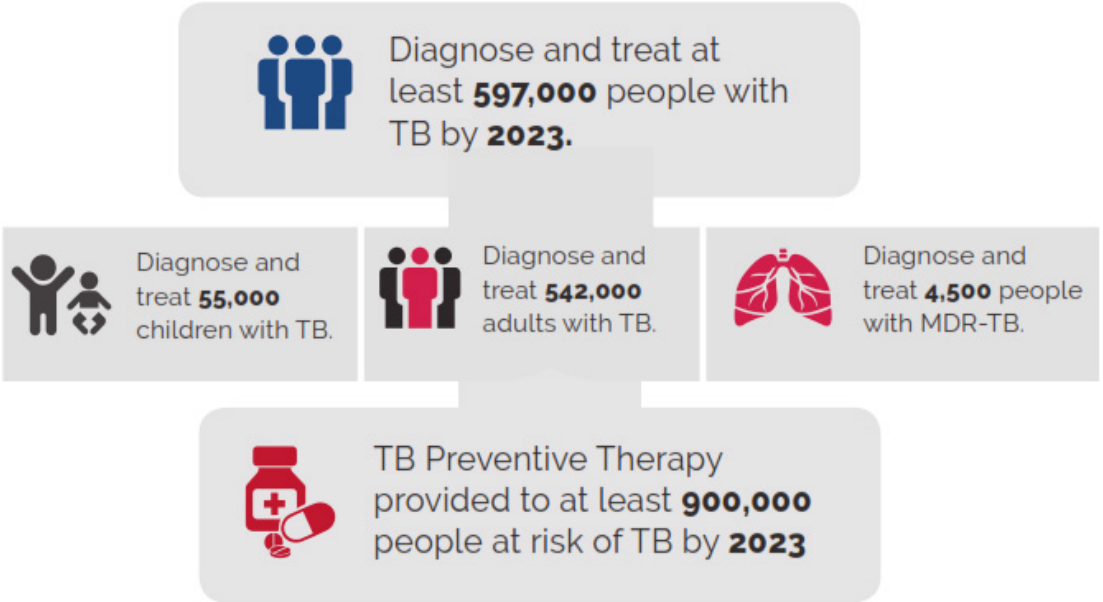
Respiratory diseases were reported as the leading cause of morbidity among all age groups (MOH, 2016; HIS Annual Report Nairobi Kenya). Among the respiratory diseases, the most frequently occurring that result in significant morbidity and mortality are lower respiratory infections, drug-susceptible TB, drug-susceptible HIV/AIDS – TB and chronic obstructive pulmonary disease (COPD). Kenya at the moment has not established the true burden and magnitude of lung disease.

1.4 Summary of NSP Objectives and targets

1.4.1 Impact targets (by 2030):

1. Reduce TB deaths by 90% compared to 2015
2. Reduce the TB incidence rate by 80% compared to 2015
3. Reduce the proportion of people with leprosy diagnosed with a grade 2 disability to below 5%
4. Reduce the burden of chronic lung diseases by 20% compared to 2015
5. Zero families facing catastrophic costs due to TB, leprosy or lung diseases

1.4.2 Priority outcome targets (by 2023):



1.5. Development of the monitoring and evaluation plan

The M&E plan was developed through a multi-stakeholder approach and it is in line with the National Strategic Plan (NSP) 2019 – 2023. Findings, lessons learnt and best practices outlined in the implementation of the previous M&E plan have also informed the development of this plan.

The sections in this plan are informed by vital documents including the NSP 2019 -2023, end TB strategy, prevalence survey, catastrophic surveys, Global TB reports and others. In the results framework, key indicators were determined according to the interventions documented in the NSP. This is key in ensuring proper monitoring of the NSP is conducted. Key research and evaluation priorities have also been defined in line with the gaps documented in the NSP.

Update of this document will be done after the epidemiological and midterm review of the NSP. The review will be done through multi-stakeholder engagement. Findings of surveys conducted prior to the review will also inform the updates.

Chapter 2
Indicator definition and measurement

2.1. Objectives of the M&E Plan

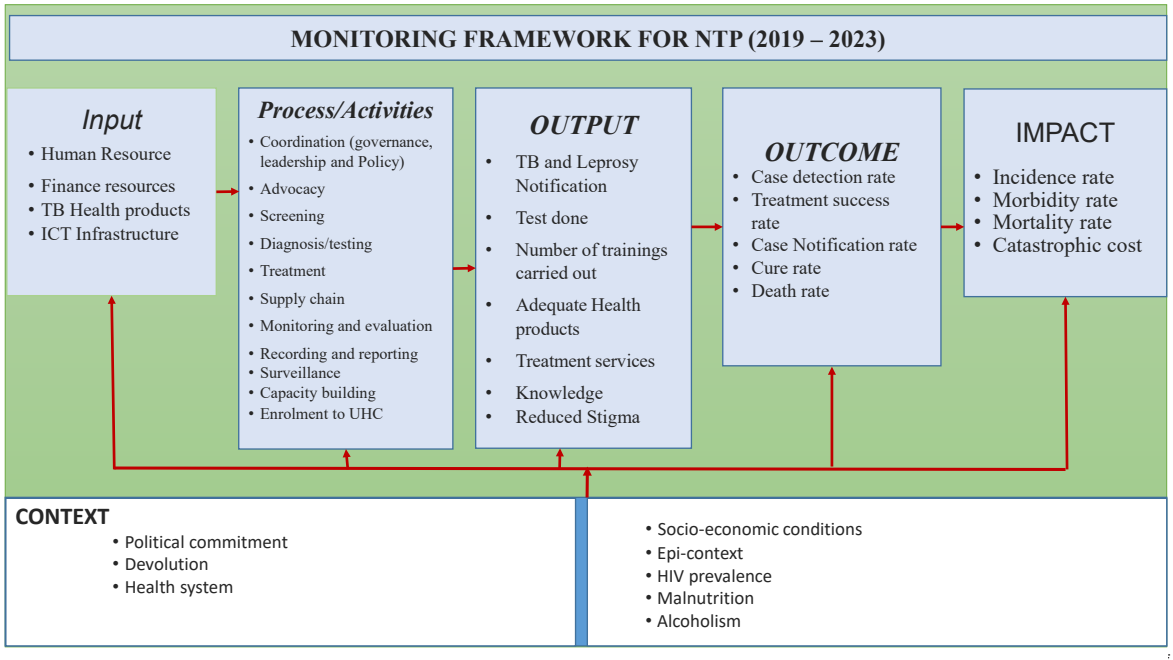
2.1.1 Broad Objective

To describe the monitoring and evaluation processes for TB, Leprosy and Lung Health control activities for the National Strategic Plan 2019-2023

2.1.2 Specific objectives

- To describe the M&E coordination mechanism
- To describe the indicators to be monitored and tracked as per the interventions and activities defined in the Strategic Plan.
- To outline data management processes such as data collection, data flow, data audits, frequency of measure, responsible persons and data sources.
- To itemize and prioritize research areas to be undertaken within the implementation of the Strategic Plan.
- To highlight/quantify the budget for resource mobilization for M&E activities
- To define feedback mechanisms and dissemination processes for M&E findings.

2.2. Monitoring Framework



2.3: Indicator definition, measurement and target

Indicator	Indicator definition	Frequency	Source of data	Targets						Responsible person
				Baseline	Y 1	Y2	Y3	Y4	Y5	
				2017	2019	2020	2021	2022	2023	
Drug susceptible TB										
Proportion of presumptive TB cases (with respiratory symptoms) with laboratory investigation for TB	**Numerator:** Number of presumptive TB cases tested **Denominator:** Total number of people presumed to have TB	Quarterly	TIBU/ Presumptive Register/ KHIS	TBD	80%	80%	80%	80%	80%	M&E officer
Number of people notified with TB (all forms)	Number of DSTB people (all forms) notified	Quarterly	TIBU	85,188	86,504	98,481	101,366	101,276	98,541	M & E
Case notification rate (CNR)	**Numerator:** Number of people notified with TB (all forms) **Denominator:** Total projected population of a county per year	Yearly	TIBU/KNBS	171	182	203	204	199	190	M & E
Sputum conversion rate at the end of intensive phase	**Numerator:** No. of bacteriologically confirmed cases with a negative smear result at the end of the intensive phase **Denominator:** Total number of bacteriologically confirmed cases started on treatment	Quarterly	TIBU	75%	80%	85%	90%	90%	90%	M & E

Proportion of notified TB cases evaluated for nutritional support	**Numerator:** Number of notified TB cases with nutritional assessment **Denominator:** Total number of notified TB cases	Annual	Annual report	80%	84%	88%	92%	96%	100%	Nutrition Coordinator
Proportion of eligible malnourished TB cases who received appropriate nutrition support	**Numerator:** Number of malnourished (Severe and Moderate) patients offered appropriate nutritional support **Denominator:** Total number of assessed TB cases who required nutritional support	Annual	Annual report	47%	57%	67%	77%	87%	95%	Nutrition Coordinator
Mortality rate among malnourished TB patients	**Numerator:** Number of deaths among notified TB cases who are malnourished **Denominator:** Total number of notified malnourished TB cases	Annual	Annual report	13%	11%	9%	7%	5%	<5%	Nutrition Coordinator
Treatment success rate (all forms); Percentage of TB cases successfully treated	**Numerator:** Total number of patients with outcomes cured and treatment completed **Denominator:** Total number of patients notified	Quarterly	TIBU	81%	85%	90%	90%	90%	90%	M & E

Cure rate for bacteriologically confirmed cases (both New and Relapse)	**Numerator:** No. of bacteriologically confirmed cases with a cure outcome at the end of treatment **Denominator:** Total number of bacteriologically confirmed cases notified	Quarterly	TIBU	67%	70%	80%	80%	85%	95%	M&E
TB death rate (All forms of TB)	**Numerator:** Total number of TB patients with Died outcome in the register **Denominator:** Total number of patients notified	Annual	TIBU	6%	<5%	<5%	<5%	<5%	<5%	M&E officer
Lost to follow-up (All forms of TB)	**Numerator:** Total number of TB patients with a lost to follow-up outcome in the register **Denominator:** Total number of patients notified	Annual	TIBU	6%	<5%	<5%	<5%	<5%	<5%	M&E officer
Programmatic Management of Drug Resistance TB										
Proportion of notified TB patients who receive DST	**Numerator:** No. of notified TB cases tested with a WRD as the initial Diagnostic test **Denominator:** Total number of notified TB cases	Quarterly	TIBU	46%	50%	60%	70%	80%	95%	M & E

Number of TB cases with Rifampicin-resistant TB (RR-TB) and/or MDR-TB notified	Number of TB cases with RR-TB and/ or MDR-TB notified to the National TB program	Quarterly	TIBU/ TB4/ DRTB register	577	951	906	995	1075	1148	M & E
Number of cases with RR-TB and/ or MDR-TB that began second-line treatment	Number of cases with RR-TB and/ or MDR-TB that began second-line treatment	Quarterly	TIBU/DRTB register	577	951	906	995	1075	1148	M & E
Treatment success rate; Percentage of DRTB cases successfully treated	**Numerator:** Total number of DRTB patients with outcomes cured and treatment completed **Denominator:** Total number of DRTB patients notified	Quarterly	TIBU	73%	85%	90%	90%	90%	90%	M & E
Childhood TB										
Proportion of children with TB among notified TB Patients	**Numerator:** Number of notified children (<15 years) with TB **Denominator:** Total number of notified TB cases	Quarterly	TIBU	12%	12%	13%	13%	14%	15%	M & E
Pediatric TB treatment success rate	**Numerator:** Number of pediatric TB cases who cured or completed treatment **Denominator:** Total number of notified pediatric TB cases	Quarterly	TIBU	85%	86%	87%	88%	89%	90%	M & E

Proportion of eligible children on TB preventive therapy	**Numerator:** Number of eligible children initiated on TB preventive therapy **Denominator:** Total number of children eligible for preventive therapy	Quarterly	TIBU	13%	49%	59%	69%	79%	90%	M & E
Proportion of children (< 5) household contacts of BC initiated on TB preventive therapy	**Numerator:** Number of children initiated on TB preventive therapy **Denominator:** Total number of children eligible for preventive therapy	Quarterly	TIBU	63%	90%	90%	90%	90%	90%	M & E
TB/HIV										
Proportion of registered TB patients (all forms) with documented HIV status	**Numerator:** number of TB patients with documented HIV status (Positive and Negative) **Denominator:** Total number of notified TB ptients	Quarterly	TIBU	97%	100%	100%	100%	100%	100%	M&E
Proportion of HIV - positive TB patients started on ART	**Numerator:** number of HIV positive TB patients started on ART **Denominator:** Total number of notified TB ptients who were HIV Positive	Quarterly	TIBU	95%	100%	100%	100%	100%	100%	M&E

Treatment success rate among HIV-positive TB cases	**Numerator:** Number of notified HIV positive TB cases who got cured or completed treatment **Denominator:** Total number of notified HIV positive TB cases	Quarterly	TIBU	79%	80%	81%	82%	83%	85%	M&E
Proportion of PLHIV initiated on TB Preventive Therapy	**Numerator:** Number of PLHIV initiated on TB Preventive Therapy **Denominator:** Total number of PLHIV on care	Quarterly	MOH731/KHIS	65%	70%	75%	80%	85%	90%	M&E (NASCOP)
PPM										
Proportion of notified TB cases (all forms) contributed by non-national TB program providers – private/non-governmental facilities	**Numerator:** Number of TB cases (all forms) that are notified by private health facilities to the National TB Program **Denominator:** Number of TB cases (all forms) notified to the National TB Program	Quarterly Yearly	TIBU	18%	19%	23%	27%	30%	34%	M & E

Proportion of private sector providers engaged to provide comprehensive TB services	**Numerator:** Number of private sector providers providing comprehensive TB services **Denominator:** Total number of private providers engaged/ mapped out	Annual Yearly	PPM reports	TBD	TBD	TBD	TBD	TBD	TBD	PPM cordinator
Number of counties engaging the informal sector providers in TB care and prevention	Number of counties engaging the informal sector providers in TB care and prevention	Annual	ISP providers reports	7	15	23	31	39	47	PPM cordinator
Human Rights and Gender										
Number of lawmakers, law enforcement agents and HCW sensitized on human rights and gender	Number of lawmakers, law enforcement agents and HCW sensitized on human rights and gender by the TB program and other partners.	Quarterly	Quartely reports	TBD	TBD	TBD	TBD			Human rights cordinator
Supply Chain & aDSM										
Reporting rates for central stores on TB medicine	**Numerator;** Number of TB central stores reporting on TB medicine **Denominator;** Total number of TB central stores	Monthly	TB Allocation tool			100%	100%	100%	100%	CP

Reporting rates for central stores on laboratory commodities	**Numerator;**Number of TB diagnostic sites reporting on lab commodities **Denominator:** Total number of TB diagnostic sites	Monthly	TB Allocation tool			100%				CMLT
Number of ADR reported to PPB	Number of ADR cases notified to the PPB	Quartely	PPB							CTLC
Leprosy										
Proportion of notified leprosy patients with disability grade 2	**Numerator:** Number of notfied leprosy cases with disability grade 2 **Denominator:** Total number of notified leprosy cases	Annual	TIBU	35%	30%	25%	20%	10%	<10%	Leprosy Coordinator
Proportion of notified leprosy cases who are children	**Numerator:** Number of notified childhood (< 15 years) leprosy cases **Denominator:** Total number of notified leprosy cases	Annual	TIBU	6%	6%	5.50%	5%	4.50%	3%	Leprosy Coordinator
Diagnostics										
EQA Coverage (Laboratories)	**Numerator:** Number of laboratories enrolled in EQA **Denominator:** Total number of laboratories	Quarterly	EQA Workbook	90%	100%	100%	100%	100%	100%	M&E manager

EQA coverage feedback	**Numerator:** actual that received EQA feedback by sub lab coordinator, **Denominator:** Total number of labs participated in EQA	EQA feedback form	Quarterly reports	90%	100%	100%	100%	100%	100%	M&E manager
EQA coverage feedback	**Numerator:** Total number of labs with un acceptable performance **Denominator: T**otal number of labs participated in EQA	EQA feedback form	Quarterly reports	90%	100%	100%	100%	100%	100%	M&E manager
Proportion of gene xpert sites enrolled in EQA	**Numerator:** Total number of gene xpert sites enrolled for EQA **Denominator: T**otal number of gene xpert sites	EQA feedback form	Quarterly reports	90%	100%	100%	100%	100%	100%	M&E manager
Gene xpert utilization Rate	**Numerator:** Total Number of test done per machine **Denominator:** Total number of test expected based on machine modules capacity	AFB/Gene xpert register/LIMS	Quarterly reports	90%	100%	100%	100%	100%	100%	M&E manager
Gene xpert positivity rate	**Numerator:** Number of positive test results **Denominator:** Total test done using Gene xpert	AFB/Gene xpert register/LIMS	Quarterly reports	10%	25%	25%	25%	25%	25%	M&E manager

Gene xpert error rate	**Numerator:** Total Number of errors recorded **Denominator:** Total test done using Gene xpert	AFB/Gene xpert register/LIMS	Quarterly reports	<5%	<5%	<5%	<5%	<5%	<5%	M&E manager
Proportion of diagnostic testing sites that monitor performance indicators and are enrolled in an EQA system for all diagnostic methods performed	**Numerator:** Number of diagnostic sites that monitor performance indicators and enrolled in an EQA system **Denominator:** Total number of diagnostic/testing sites	Quarterly	EQA Quarterly reports	85%	86%	87%	88%	89%	100%	M&E manager
UHC and Social Protection										
Proprtion of household affected by TB facing catastrophic cost	**Numerator:** Number of DR Tbpatients supported on NHIF **Denominator:** Total number of DR TB patients notified			86%					43%	M&E manager
Community TB										
Proportion of bacteriologically confirmed TB patients and children under 5 reached for household contact tracing	**Numerator:** Number of bacteriologically confirmed TB patients and children under 5 visited for contat tracing **Denominator:** Total number of bacteriologically confirmed cases and children under 5	Quarterly	TIBU/Contact management register		80%	80%	80%	80%	80%	M&E

Proportion of contacts of bacteriologically confirmed cases traced and screened for TB	**Numerator:** Number of contacts of bacteriologically confirmed cases traced and screened for TB **Denominator:** Total number of contacts of bacteriologically confirmed cases	Quarterly	TIBU/Contact management register		49%	40%	45%	55%	60%	M&E

2.4: Routine data collection

Recording and reporting of TB data is vital for Monitoring and Evaluation for the TB programme. Collection of tuberculosis (TB) data forms part of the general health information system, which aims to:

- Ensure a continuum of care, information-sharing with patients and transfer of information between health facilities,
- Enable managers at different levels in the DNTLP to monitor programme performance in a standardized and internationally comparable way, and
- Provide the basis for programmatic and policy development.
- Establishment of a reliable recording and reporting system is an essential part of the End TB strategy. These guidelines are accompanied by forms, registers and reporting templates that are designed for paper-based and electronic recording and reporting systems.

2.5: Data collection tools

In conformity with WHO recommendations, the NTP has several reporting tools in respect to the various thematic areas. The following registers, cards and forms are used for the management of TB/Leprosy at health care facilities supported by the Program:

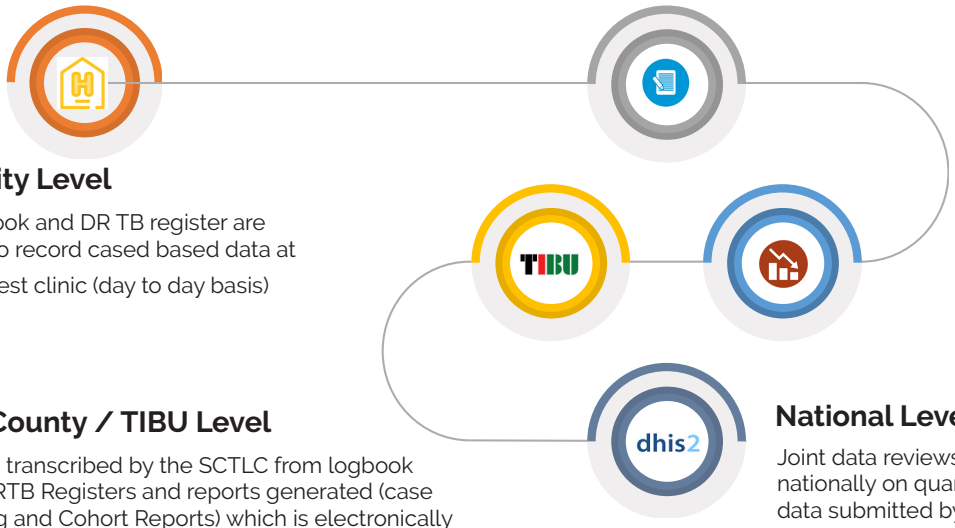
No	Name of Tool	Purpose	Site of Use	Filled By
1	Tuberculosis screening/Contact tracing form at community level	It is an ICF cards Used for screening TB in the community	Community	CHV.
2	Community Referral Form	Used to refer presumptive TB cases, contact tracing and treatment interrupters from community to the facility for diagnosis and treatment	community	CHV.
3	Community Monthly Reporting Tool	Reporting tool for community TB control activities	Facility	CHV
4	Treatment Interruption Tracing Form for Community Health Volunteers	Used to track patients who have defaulted TB treatment.	Community/ Facility	CHV
5	Facility Based Active Case Finding summary tool	This is a summary tool used to record summary ACF data in a facility from all the departments per month	Facility	Clinician
6	Departmental Summary Tool for Facility -Based Active Case Finding	This is a summary tool used to record summary ACF data per department per month	Facility	Clinician

7	DR TB Baseline Lab Request Form	This is a form used to request for further lab investigation for a DR-TB patient before and during the treatment course	Facility	Clinicians
8	AFB/GeneXpert / Culture Register	It is a case listing for all pulmonary TB patients sent for AFB microscopy and gene xpert tests done in the lab.	Lab	Lab personnel
9	EQA Analysis Form	This is used to record the EQA results by the lab	Lab	Lab personnel
10	EQA Summary Form	Used to collect microscopy EQA performance by the Lab coordinator	Lab	Lab personnel
11	Laboratory Support Supervision Checklist	It is a duplicated checklist booklet used by the lab coordinator to conduct supervision to the facilities doing smear microscopy	Lab	Lab personnel
12	Workload Summary Form	Used to collect monthly laboratory data for microscopy, Xpert data, Culture data	Lab	Lab personnel
13	EQA Sampling Sheet	Used by the county and sub county TB coordinators to sample slides for EQA controls	Lab	TB Coordinator
14	Patient referral form to TB clinic	Used for referring presumptive TB cases from other service delivery points e.g. HIV clinic, medical clinics among others to TB clinic	Other service delivery points outside TB Clinic	Clinicians
15	Asthma Register	It is Asthma Case listing register which summarizes key variables for tracking Asthma patient progress.	Outpatient/ Chest Clinic	Clinicians
16	Asthma Record Card	The card is filled by health worker and acts as patient clinical record to document clinical notes during treatment	Outpatient/ Chest clinic	Clinicians
17	Patient Appointment Card (TB, TPT, DRTB, Leprosy and Asthma)	The card is used for scheduling treatment appointments and acts as a treatment reminder to the patient.	Patient	Clinicians
18	Bin Card	This card is used to monitor stock status of commodities in facility store or pharmacy	Pharmacy/ Store	Pharmacist

19	S11	This form is in triplicate and is used to issue out commodities to various service delivery points within the facility	Pharmacy/ Store	Pharmacist
20	Intensive Case Finding(ICF) /TPT record Card	This form is used both for screening of HIV patients for TB and recording TPT information for eligible patients	TB and HIV clinic	Clinicians
23	Patient Record Card	The card is filled by health worker and acts as patient clinical record card used for clinical notes during treatment	TB Clinic	Clinicians
24	Facility TB Treatment Register (TB 4)	It is a TB Case listing which summarizes key variables for tracking TB patient progress and outcomes	TB Clinic	Clinicians
25	Culture/DST Log book	To capture patients whose samples have been sent for culture/ DST and their results	TB clinic	Clinicians
27	DR TB Patient Log book	Individual patient management booklet that records all information regarding the patient.	TB clinic	Clinicians
28	DR TB Register	DRTB Case listing which summarizes key variables for tracking patient progress and outcomes	TB clinic	Clinicians
30	Pharmacovigilance Reporting Tools (Yellow)	Reporting a Suspected Adverse Drug Reaction	TB Clinic	Clinicians
	Pharmacovigilance Reporting Tools (Pink)	Reporting a Suspected Poor-Quality Medicinal Product	Pharmacy/ Store	Pharmacist
	Pharmacovigilance alert card (White)	The card given to patient who developed ADR	Patient	Clinicians
31	Leprosy record card	The card is filled by health worker and acts as patient clinical record card	TB Clinic	Clinicians
32	Leprosy register	It is a leprosy case listing which summarizes key variables for tracking TB patient progress and outcomes	TB Clinic	Clinicians
33	Monthly Data Chart	It's a monthly summary chart that shows facility performance in various indicators	TB Clinic	Clinicians

35	Facility Referral/ Transfer form for Drug Sensitive (DS TB or DR TB)	This a form used to refer a drug sensitive TB patient from one facility to another	TB Clinic	Clinicians
36	TPT/TB Contact Management Register	This is a register used to enlist all contacts for the bacteriologically confirmed patients and screen them for TB. It also captures details of all clients initiated on TPT	TB Clinic	Clinicians
37	AFB, Xpert & Culture Request Form	Used by clinicians to request for sputum /GeneXpert/culture tests	TB Clinic	Clinicians to request and lab personnel to fill results
38	Presumptive TB Register	Used to record all presumptive TB cases identified in a health facility for the purpose of intensifying case finding	TB Clinic, CCC, outpatient and inpatient departments	Clinicians
40	Facility Daily Activity Drug Register	To monitor the use of the TB and DR-TB drugs on a daily basis	TB clinic/ Pharmacy	Clinician
41	FCDRR	It's a reporting tool for consumption of TB, and DR TB drugs	TB clinic/ Pharmacy	Pharmacist/ Clinician

2.6 Data Flow



Facility Level

Log book and DR TB register are used to record cased based data at the chest clinic (day to day basis)

Facility Level

Facilities extracts data summaries from the logbook and DRTB Registers. Data is validated and discussed at the facility before submission to the SCHRIO

Sub County / TIBU Level

Data is transcribed by the SCTLC from logbook and DRTB Registers and reports generated (case Finding and Cohort Reports) which is electronically transmitted to National level. Data is then pushed to DHIS after validation . SCHRIOs will also enter summary data on DHIS on indicators not captured in TIBU

National Level

Joint data reviews are done nationally on quarterly basis for data submitted by SCTLCs and HRIOs. Data is synthesized for performance monitoring and policy formulation

- Facility TB, leprosy and lung disease data may largely be recorded in the standard recording and reporting tools provided by the MOH. While electronic reporting at the facility level is acceptable and encouraged, conformity to the standards provided by the MOH through its reporting framework and health information system policy is mandatory for each electronic tool handling TB, Leprosy and Lung disease data.

- Accurate records of individual patients and maintenance of registers are minimum requirements that need to be met by all healthcare workers involved with the diagnosis and treatment of tuberculosis, leprosy and lung disease patients. It is the responsibility of the facility in charge (I/C) with training and technical support (supervision) from the S/CTLC to ensure that recording of details about patients is done properly. The number and design of cards, forms and registers has been limited and kept as simple as possible to enable the DNTLD-P to have good patient care and monitoring of performance at all levels.

- All patients diagnosed in health care facilities supervised by the DNTLD-P must be registered at the start of treatment.

Note: TB is a notifiable disease under the Public Health Act Cap 242, and therefore all TB Cases (diagnosed by the public or private sector) must be notified to the MOPHS

Archiving & Confidentiality

- The facility is expected to take precautions against fire, other accidents and criminal acts that may affect stored data at the facility. For computer-based records, responsible ICT officers in conjunction with the facility in-charge(s) should ensure proper archiving and accessibility of the data. Because of data sensitivity, appropriate security against unauthorized access and modification should be instituted; particularly where a provider fails to comply with privacy standards prescribed by the health information system policy or any existing or proposed health law or knowingly violates patient privacy. In line with the principles of information privacy, data collected for TB, leprosy and lung diseases by the health workers shall be stored confidentially (lock & key / Password protected). This shall be different from the policies on medical records management.

Chapter 3
Implementation Plan

3.1 Capacity to Implement M&E Plan

M&E section at NTP coordinates M&E activities for the national NSP 2019-2023.It is tasked with responsibility of availability of high quality data by: deploying robust data collection system, data management, analysis, surveillance, operation research, reports production and dissemination. In 2017, the program conducted an in-depth EPI analysis including assessment of the surveillance system using WHO checklist (TB EPI report 2017). The surveillance system was found to have key strength with a few gaps where; six standard benchmarks fully met, three were partially met and four were not met at all. Based on the assessment, the strengths noted were:

- skilled and dedicated national team with capacity to manage large datasets, carry out statistical and epidemiological analysis
- Strengthened M & E activities and lead on further developments of TIBU, for which there is a dedicated software developer. There are ambitious future plans to link TIBU with laboratory data
- Data are both internally and externally consistent with robust data validation checks built into the system
- Data is fully disaggregated as per WHO guidelines; age/sex, type of TB, regimen, and HIV status
- There is clear guidance and documentation for recording and reporting and data collection tools are consistent with international reporting and capture the minimum dataset
- The NTP produce an epidemiological annual report and have developed an M & E training module for sub-county and county level staff
- Coverage of HIV testing in TB patients as well as treatment of TB-HIV co-infected patients with ART and CPT is extremely high
- Childhood TB (0-14 years) appears to be adequately diagnosed and reported
- Reporting of TB is mandatory by law and an inventory study to measure under-reporting has been carried out
- Impact evaluations including prevalence survey, DRS survey and patient cost survey have been completed hence quality data for program planning is available

There were gaps identified during the assessment, which the M&E plan seeks to strengthen during the period. The gaps are within either the program or wider system issues that the program will work with other stakeholders in the sector to improve. These includes;

- The system does not capture all cases who die or are lost to follow up prior to starting on treatment from hospital wards, including paediatric and bacteriologically confirmed cases captured in the laboratory
- Challenges of patients who transfer out to other facilities and lost to follow ups
- Sub optimal routine surveillance of DR-TB in all TB cases
- Understanding reasons why there is still poor access to healthcare
- Measuring TB mortality due to sub optimal coverage of vital registration
- Ensuring standard forms are used at all service delivery points
- Inability to carry out standardised routine analysis and providing feedback to lower levels and developing documentation on data quality which covers all M & E activities being carried out
- TIBU requires several modifications to further improve surveillance including; introducing a unique identifier with a routine mechanism for de-duplicating cases and matching to laboratory data, combining DR and DS-TB in one dataset/module and ensuring there are no duplicates, linking TIBU to laboratory data including GeXLIMS and other systems such as HIV, introducing a data visualisation dashboard for routine data monitoring
- Introducing a mechanism for monitoring of timeliness of reports and distinguishing between missing reports and zero reporting, implementing a mechanism for referring and transferring cases and the ability to produce flexible reports by time period that are useful at the facility level for data management

3.2 Available resources at the M&E Unit

M&E manager leads M&E unit with 3 M&E officers, two statisticians, two epidemiologist and three ICT officers at the national level. Well-trained county and sub county TB coordinators also support this with capacity to carry out program reporting. In terms of infrastructure, the program is fairly advanced in ICT with electronic reporting systems; software and hardware including leased cloud storage and integration with KHIS. The program has also hardware resources in the field including tablets for data capture.

Data analysis software available include excel, STATA and GIS system.

In terms of budget, the program has a budget that is 7.4 % of the overall NSP budget for M&E activities.

3.3 Data Analysis

The national M&E section is responsible for data analysis including the production of annual reports and quarterly bulletins to inform stakeholders on the progress towards achieving targets. Research data for all studies undertaken will be made available for further analysis and the outputs should inform policy and design of interventions for TB, leprosy and lung disease control.

3.4: Review of strategic plan

This review is carried out at the mid-term and end term of the strategic plan period whose aim is to evaluate achievements of the intervention as in strategic plan. During the review, there will be clear terms of reference and it will be led by external review.

3.5: Research Priorities

Kenya plans to undertake surveys/assessments for TB, leprosy and Lung health information, both biological and behavioral surveys in different target groups in collaboration with various partners. Surveys will be conducted regularly to obtain information, which cannot be obtained through the routine program surveillance system. The protocols for the surveys and surveillance are based on international recommendations. The results from these surveys are used to inform planning and policy directions in the division.

National Research Priorities

Thematic Area	Research Priorities
Promoting Care Seeking and Prevention in the Community	TB knowledge attitude and practices survey
Accelerating Appropriate Diagnosis	Molecular studies- characterization of TB in Kenyan setting
Quality of Care and Ensuring Cure	Measurement of patient quality of care- 'Mystery shopper' evaluations
	Adherence surveys: Uptake of digital solutions and effect on patient follow up and adherence
	Assessment of risk factors and barriers to access to TB services and care
	Assessment of barriers to uptake and retention in TB HIV services in Kenya (ongoing)
	Assessment on outcomes of IPT
	Post TB complications burden and patterns of respiratory complications following TB care
Programmatic Management of Drug – Resistant Tuberculosis	Drug Resistance Survey: to determine the burden of drug resistant TB in Kenya
	Sentinel surveillance for DR TB
TB / HIV and other Co-Morbidities	What is the marginal yield of TB undergoing baseline and periodic CXR screening?
	Documentation of TB HIV services integration models
Leprosy	Quality of life studies to inform on the rehabilitative needs of the clients.
Key Populations	Feasibility study on use of TB Preventive Therapy (TPT) in selected key populations
UHC and Social Protection	Follow-up survey of TB Patient cost survey in 2023
Nutrition	Impact evaluation of nutritional interventions among TB patients
Supply chain and ADSM	Regular assessment of Pharmaceutical management indicators for anti TB medicines

Data for Programmatic Monitoring and Planning	TB Inventory study
	Impact assessment of ACF in facilities in Kenya

Counties research priorities and desktop reviews

Thematic Area	Research Priorities
Accelerating Appropriate Diagnosis	Longitudinal data analysis of smear microscopy EQA to determine quality improvement trends and recurrent gaps.
	Longitudinal data analysis on Culture and DST services to determine trends, efficacy and effectiveness
	Effectiveness and impact of specimen referral systems at the national, county and facility levels
	Impact LED microscopy implementation and scaling up Retrospective analysis of smear microscopy EQA impact
Quality of Care and Ensuring Cure	Burden of TB among HCWs
Programmatic Management of Drug – Resistant Tuberculosis	DR TB Treatment outcomes of patients on new molecules
	Modelling of DR TB transmission in Kenya
Childhood Tuberculosis	TPT Outcomes in Children
	Severe Malnutrition and TB
	Cost effectiveness of incentives for child contact tracing-Yield of contact tracing
TB / HIV and other Co-Morbidities	Trends in tuberculosis incidence and case fatality PLHIV on newer ART regimens e.g. dolutegravir based ART.
Lung Health	Establishing the burden of respiratory conditions (pneumonia, asthma and COPD) in the country
Leprosy	Contact screening yield among household contacts of former and current leprosy patients.
Key Populations	Identification and mapping of TB key populations in Kenya (population estimates for TB Key, Vulnerable and Underserved populations in Kenya)
UHC and Social Protection	Assessment of the effect of the cash transfer for DRTB patients and their households
Nutrition	Qualitative assessment of the levels of integration of nutrition services with other patient care services.

3.6. Data Quality Assurance

3.6.1 Definition of terms

Data quality is a measure of the condition of data based on factors such as accuracy, completeness, consistency, reliability and whether it's up to date. Measuring data quality levels is useful in identifying data errors that need to be resolved and assess whether the data is fit to serve its intended purpose

Data quality assurance is the process of data profiling to discover inconsistencies and other anomalies in the data, as well as performing data cleansing activities (e.g. removing outliers, missing data) to improve the data quality

3.6.2 Purpose of Data Quality Assurance

For the program to report accurate and reliable data, and to inform decision-making, data quality assurance is required. The objectives of the program DQA is to:

1. Verify the quality of data reported for key program indicators at all TB control sites
2. Verify the ability of data-management systems to collect, manage and report quality data.
3. Implement corrective measures with action plans for strengthening the data management and reporting system and improving data quality
4. Build capacity among health care workers at heath facilities, sub counties and Counties
5. Monitor capacity improvements and performance of the data management and reporting system to produce quality data

3.6.3 Data Quality Assurance Mechanisms

The program will adopt four techniques to ensure quality of data that will highly influence the program performance, efficiency and decision-making:

1. Data Quality Assessments
2. Strengthen health system to manage and handle data.
3. Supportive supervision.
4. Development and utilization of tools and guidelines and checklists.

3.6.4 Data Quality Assessment

Data quality assessment (DQA) is carried out to assess; consistency, accuracy, completeness, integrity, validity and timeliness of the reported program data. This is carried out once every year after the annual reports have been finalized and all the basic reporting units have submitted their reports. There are two levels of data assessment:

- Routine data quality assessment (RDQA) – routine and regular self-assessment by the program.
- On-site data verification – done externally by the funding agency at the national level targeting randomly selected health facilities as representatives of the reporting sites.

3.7 Scope of Program DQAs

The program will focus on assessing the quality of TB, leprosy and lung disease data through internal and external routine, annual and periodic audits of reported data. The process will target national, sub-national and facility levels in line with reporting protocols. The data is collected using standardized recording and reporting tools in line with the WHO reporting framework. During the exercise, a minimum set of indicators for assessment will be identified and agreed on.

I. **Strengthen health system to manage and handle data**

Human resource technical capacity is a key enabler to achieving program quality data. In order to attain this, the program will hold data for demand and use trainings for County and Sub-County TB coordinators as well as leveraging on other platforms like QRMs to conduct sensitizations on data management processes.

II. **Supportive supervision/Mentorship**

Supportive supervision is a core mandate of the NTP aimed at improving work performance, providing feedback platform and ensuring appropriate mentorship for health care workers. TB coordinators across the 47 counties schedule and visit control zone and treatment facilities to offer data driven technical assistance and mentorship to HCWs towards Quality of care to persons with. Purpose of support supervision will:

- Ensure consistency between data at facility level and what is reported in TIBU electronic system.
- Identify best practices and innovations on data management for benchmarking.
- Identify staff training needs.
- Assess availability of tools and sensitize staff on new tools as well as withdraw outdated tools from the facilities
- Provide on-the-job training.
- Agree on action plans for addressing specific problem situations.

3.7.1 Support supervision at National level

The National TB Program in collaboration with funding agency and implementing partners offer technical assistance to county coordinators and facility staff on the implementation of policies and guidelines to support TB, Leprosy and Lung health activities. This is intended to improve on performance tracking and reporting. Each treatment sites should be visited quarterly, and during the visit they should accompany the program officer from TB program on a supervisory visit to at least three or more clinics. Support supervision team should comprise TB stakeholders at the county level including but not limited C/SCTLCs, CHMT, C/SCP, CMLCs and TB implementing partners.

3.7.2 Support supervision at County and Sub-County levels by the County and Sub County Coordinators

The County TLC shall support Sub county coordinator and the HCWs at facility level to be able to document all variables during their patient management. The Sub county coordinators shall in turn support HCWs in the facilities under their treatment sites. All this is aimed at ensuring there is proper data management activities at all levels.

3.8 Development and utilization of tools and guidelines and checklists.

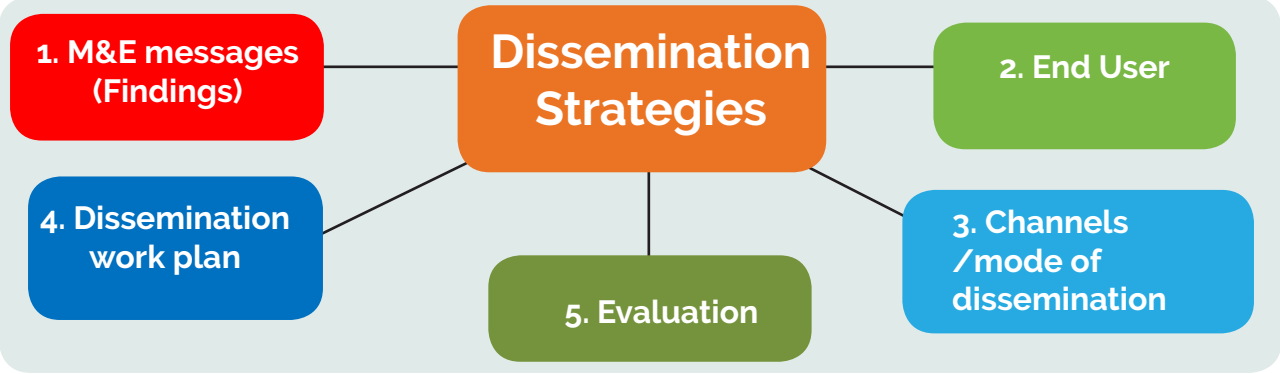
Data collection tools and guidelines are developed at the national program level with involvement of its stakeholders. Counties being one of the key stakeholders of the TB program, they are involved in the development process and therefore can disseminate the tools to the Sub Counties and health care workers at health facility level. In-order to ensure that standard tools are used for recording and reporting, the program distributes tools and guidelines to the Counties on need basis. The DQA tools was a checklist adopted from WHO Standardized tools and was revised at the national level based on key performance indicators and any other areas of need informed by previous assessments. The tools are reviewed every time an assessment is due for update and to remove irrelevant aspects.

3.9 Dissemination Plan

The dissemination will be preceded by objective and audience identification that help determine the variety of ways to share the outputs and outcomes of the programmatic activities undertaken by the NTP in Kenya.

The core elements of the dissemination plan are presented in figure X and will be analyzed in the following sections of this deliverable in order to provide the basis for all the dissemination and communication activities that will be performed as part of the plan.

Steps in dissemination strategies.



M&E Messages and findings

Critical M&E program findings are shared to inform decision making and stakeholders engaged in analysing the findings for ownership purposes. M&E section head, and staff will use the findings to refine program strategies for TB Support Program. The findings will help guide the program to focus on areas that are most crucial for effective service delivery.

End users

To increase the uptake and use of M&E findings, it is therefore imperative to identify relevant target audiences to develop an understanding of their interests and to align communication activities with their needs and priorities. The stakeholder groups that will be targeted can be distinguished between two main categories: primary target group and secondary target group.

Presents an overview, followed by detailed descriptions of messages for each target group.

Audience	Message	Objective	Channels
General Public			
Learning institution			
Patient/Client/ Key populations			
Health care workers			
Private sector /Informal health Service Providers (ISPs)			
Funding & Implementing partners			
Champions and advocates			
CSOs and supporting partners			
Policy makers: Parliamentarians, Senate, MPs and MCAs			
NTLD-P Program Managers and staff			
Opinion Leaders: religious leaders, community elders			
Media			

Channel/mode of dissemination

Several communication modes will be used to reach the target groups identified above in order to disseminate information on M&E activities and research outputs. The common dissemination methods include:

- Publishing program or policy briefs
- Publishing program findings in national and international journals and statewide publications
- Presenting at national and international conferences and meetings of professional associations
- Presenting program results to local community groups and other local stakeholders
- Creating and distributing program IEC materials, such as flyers, guides, pamphlets and DVDs

- Creating toolkits of training materials and curricula for other communities and stakeholders
- Sharing information through social media and program's website
- Summarizing findings in progress reports for donors
- Discussing on local radio and TV stations
- Publishing information in local newspapers
- Issuing a press release
- Hosting health promotion events at health fairs and functions

Evaluation and Dissemination work plan

The effectiveness of reaching the target groups and the impact of the communication activities will be monitored regularly towards specific success criteria through assessment and reports.

The scheduling of these activities is closely aligned with key M&E deliverables. For example, some activities intensify on daily, Bi-weekly, quarterly, Bi- annual, annual bases.

Who	What	Where	When	Why	How
Persons In-charge & participants	Issues being disseminated	Place of dissemination	Date of dissemination	Objectives of dissemination	Means of dissemination

3.10 M&E Structure

There is an established Monitoring, Evaluation and Research (MER) section within the National TB program. The section is charged with the coordination and implementation of all monitoring and evaluation activities related to the program's mandate.

The Monitoring & Evaluation component for DNTLD-P has the following terms of reference:

1. To conduct M&E of TB control activities supported with funding from the different funding agencies, with plans for implementation and capacity building in accordance with the set indicators and objectives laid out in the strategic plans
2. To provide technical support to partners and Program officers at the Division to ensure that they are able to effectively monitor and evaluate activities and summarize the overall impact of the projects
3. To coordinate and work with agencies undertaking M&E and other related agencies.
4. To integrate and link the M&E activities at the National level

3.10.1 M&E Technical Working Groups/Committee of Experts (CoE)

The Monitoring and Evaluation Technical Working Group (TWG/COE) comprises of NTP, communities and, various partners at all levels.

Roles and Responsibilities of the M&E Technical Working Group/ COE

The M&E Technical Working Group/ COE will;

5. Support development and review of M&E guidelines and policies.
6. Identify and prioritize operational research agenda for NTP
7. Coordinate and advice on program evaluations
8. Provide technical support for all monitoring and evaluation activities of NTP.
9. Advice the TB ICC on monitoring and evaluation and research for TB, Leprosy and Lung health control activities
10. Support the implementation of M&E framework
11. Leverage resources and avoid duplication of investments and activities.
12. Capacity building of the M&E workforce
13. Facilitate information and knowledge-sharing platforms

Output Indicator(s)	Activities	Year 1 Costs	Year 2 Costs	Year 3 costs	Year 4 Costs	Year 5 Costs	Total Costs
Outcome 1: To improve accuracy of TB data from 75% to 100%							
Indicator 1: To increase the level of agreement between the patient record card and facility TB4 register from 75% to 100%	Conduct targeted County Data Quality Audit	8,650,000	23,837,800	23,837,800	21,992,800	21,992,800	100,311,200
Indicator 2: To increase concordance between the register and TIBU system- case notification from 89% to 100%	Conduct targeted National Data Quality Audit	4,348,800	4,348,800	4,348,800	4,348,800	4,348,800	21,744,000
	Develop a Data Quality Improvement plan	7,995,000					7,995,000
	External TA to the Country		3,400,000		3,400,000	3,400,000	10,200,000
Sustain the gains	Continously provide recording and reporting tools	13,112,700	8,708,700	-	8,708,700	8,708,700	**39,238,800**
	Review the scope routine Technical Assistance visits from National to the Sub-national levels to include M&E elements	4,404,000		4,404,000			**8,808,000**
	Ensure optimal perfomance of the national digital surveillance system (TIBU)	7,540,000	7,540,000	7,540,000	7,540,000	7,540,000	**37,700,000**

Outcome 2: To improve the use of data for action planning at the sub-national level in all 47 counties							**-**
Indicator 1: To increase data utilization at all levels for decision making	Routine programmatic performance review at all levels	183,356,000	188,318,500	183,356,000	181,818,500	181,818,500	**918,667,500**
	Quarterly review of submitted data (Pre QRM meetings)	480,000	480,000	480,000	480,000	480,000	**2,400,000**
Outcome 3: To reduce Initial loss to follow up from 21% to 0% by 2023							**-**
To reduce initial lost to follow up rate from 21% to 0% by 2023	Stregthen the multisectoral approach in developing a unique Personal Identifier	486,000	-	3,844,800	-	3,844,800	**8,175,600**
	Conduct an inventory study to assess the level of initial loss to follow up	2,460,000	18,765,000	6,180,000	-	-	**27,405,000**
	Capacity building of the HCW on initial registration of patients and referral procedures	12,818,000	12,818,000	12,818,000	12,818,000	12,818,000	**64,090,000**
Improve TB case notification in private sector from 18% to 30% by 2023	Adoption of simple innovative and differentiated reporting mechanisms to ease TB case notification.	21,890,000					**21,890,000**

Outcome 4: To improve availability of TB mortality data							**-**
Indicator 1: To improve TB mortality notification in the vital registration system from 45% to 100% by 2023	Review meeting for vital registration data and TB mortality data	2,002,000	2,002,000	2,002,000	2,002,000	2,002,000	**10,010,000**
	a) Training of health care workers on reporting of mortalities in ICD 10	41,328,000	41,328,000	41,328,000	41,328,000	41,328,000	**206,640,000**
	b) Linkage of the TB surveillance system with the vital registration reporting system						**-**
	c) Conduct periodic reviews of TB surveillance data and Civil registration and vital statistics department mortality data		3,553,500			3,553,500	**7,107,000**
Indicator 2: To improve community TB mortality classification and notification from 0%(Look for the baseline) to 50% by 2023	a) Sensitization of CHWs on verbal autopsy and death notifications	9,450,000	9,450,000	9,450,000	9,450,000	9,450,000	**47,250,000**

Outcome 5: To ensure timely availability of TB data from 47 counties by the 15th day of the month ensuing the quarter							**-**
Indicator: To provide all TB data from the 47 Counties by the 15th day of the ensuing quarter	Quarterly On-site Data Verification (OSDV)	13,560,000	7018000	7018000	0	0	**27,596,000**
	Capacity building on recording and reporting	7,353,600	7,353,600	7,353,600	7,353,600	7,353,600	**36,768,000**
	Facility based sensitization on recording and reporting tools		14,385,600	14,385,600	14,385,600		**43,156,800**
	Evaluate data capacity(Questionnaire) to ascertain knowledge levels by health care workers on M&E		73,800,000	73,800,000	73,800,000		**221,400,000**
	Digitize AFB data (USSD)		120,000		120,000		**240,000**
	Capacity build on digitized AFB Data		3,000,000				**3,000,000**
	Review of recording and reporting tools to include the Huduma number once finalized			13,125,600			**13,125,600**
		3,887,000	3,887,000	3,887,000	3,887,000	3,887,000	**19,435,000**

Outcome 6: TIBU Phase 4 development							**-**
TIBU Phase 4	Develop knowledge repository for data-electronic		4,000,000				**4,000,000**
	Upgrade TIBU to accommodate the Citizen portal, HCW e-learning modules, Social protection, Key population variables, Predictive analytics	4,982,200	11960400	11960400	11960400	11960400	**52,823,800**
Outcome 7: Quality improvement of Program implementation							**-**
Continuous improvement of quality	Conduct a KAP Survey	2,725,000	34536000	7078000	0	0	**44,339,000**
	Patients satisfaction surveys- 'Mysteryshopper' evaluations			6,332,000			**6,332,000**
	Evaluate treatment outcome of IPT		16,230,000				**16,230,000**
	Accelerating Appropriate Diagnosis Molecular studies- characterization of TB in Kenyan setting	8,000,000					**8,000,000**
	Adherence surveys: Uptake of digital solutions and effect on patient follow up and adherence		8,000,000				**8,000,000**

	Assessment of risk factors and barriers to access to TB services and care			8,000,000			**8,000,000**
	Assessment of barriers to uptake and retention in TB HIV services in Kenya (ongoing)		8,000,000				**8,000,000**
	Post TB complications burden and patterns of respiratory complications following TB care					8,000,000	**8,000,000**
	Drug Resistance Survey: to determine the burden of drug resistant TB in Kenya			30,000,000			**30,000,000**
	Sentinel surveillance for DR TB		7,000,000				**7,000,000**
	TB / HIV and other Co-Morbidities: What is the marginal yield of TB undergoing baseline and periodic CXR screening?			7,700,200			**7,700,200**
	Documentation of TB HIV services integration models						**-**
	Quality of life studies to inform on the rehabilitative needs of the clients with Leprosy				9,000,000		**9,000,000**

	Feasibility study on use of TB Preventive Therapy (TPT) in selected key populations					8,800,000	**8,800,000**
	Follow-up survey of TB Patient cost survey in 2023				11,000,000		**11,000,000**
	Impact evaluation of nutritional interventions among TB patients			8,000,000			**8,000,000**
	Regular assessment of Pharmaceutical management indicators for anti TB medicines				7,000,000		**7,000,000**
	TB Inventory study			9,000,000			**9,000,000**
	Impact assessment of ACF in facilities in Kenya				8,000,000		**8,000,000**
	Biennial scientific lung health conference	13,400,000	0	16,125,000	0	0	**29,525,000**
Total M&E Budget		**374,228,300**	**523,840,900**	**523,354,800**	**440,393,400**	**341,286,100**	**2,203,103,500**
Total NSP Budget		**6,243,717,855**	**6,087,323,650**	**6,028,678,350**	**5,743,315,350**	**5,696,895,850**	**29,799,931,055**
Proportion of M&E budget (%)		**6%**	**9%**	**9%**	**8%**	**6%**	**7.4%**

References

1. Kenyan National Strategic Plan for Tuberculosis, Leprosy and Lung Health (2019–2023)
2. Kenya NTP Annual Report 2018
3. Kenya NTP Annual Report 2019
4. WHO TB EPI report 2017
5. Global TB report, 2019

Annex

ANNEX 1 – Dimensions of data quality

Data Quality Dimension	Description
Accuracy	The extent to which the data reflect the actual/correct information. It defines validity of the data and is achieved by minimizing errors from recording and transcription
Reliability	The data generated by a program's information system are based on protocols and procedures that do not change according to who is using them and when or how often they are used. The data are reliable because they are measured and collected consistently.
Precision	This means that the data have sufficient detail. For example, an indicator requires the number of individuals who received HIV counseling & testing and received their test results, by sex of the individual. In this case, an information system lacks precision if it is not designed to record the sex of the individual who received counseling and testing
Completeness	An information system from which the results are derived is appropriately inclusive: it represents the complete list of records (eligible persons, facilities, units) and the fields in each record are provided appropriately
Timeliness	Timeliness refers primarily to how current or up-to-date the data are at the time of release. Timeliness is affected by: (a)the rate at which the program's information system is updated; (b) the rate of change of actual program activities; and (c) when the information is actually used or required
Integrity	Data have integrity when the system used to generate them is protected from deliberate bias or manipulation for political or personal reasons
Confidentiality	Where clients are assured that their data will be maintained according to national and/or international standards for data. This means that personal data are not disclosed inappropriately, and that data in hard copy and electronic form are treated with appropriate levels of security (e.g. kept in locked cabinets and/or in password protected files)

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