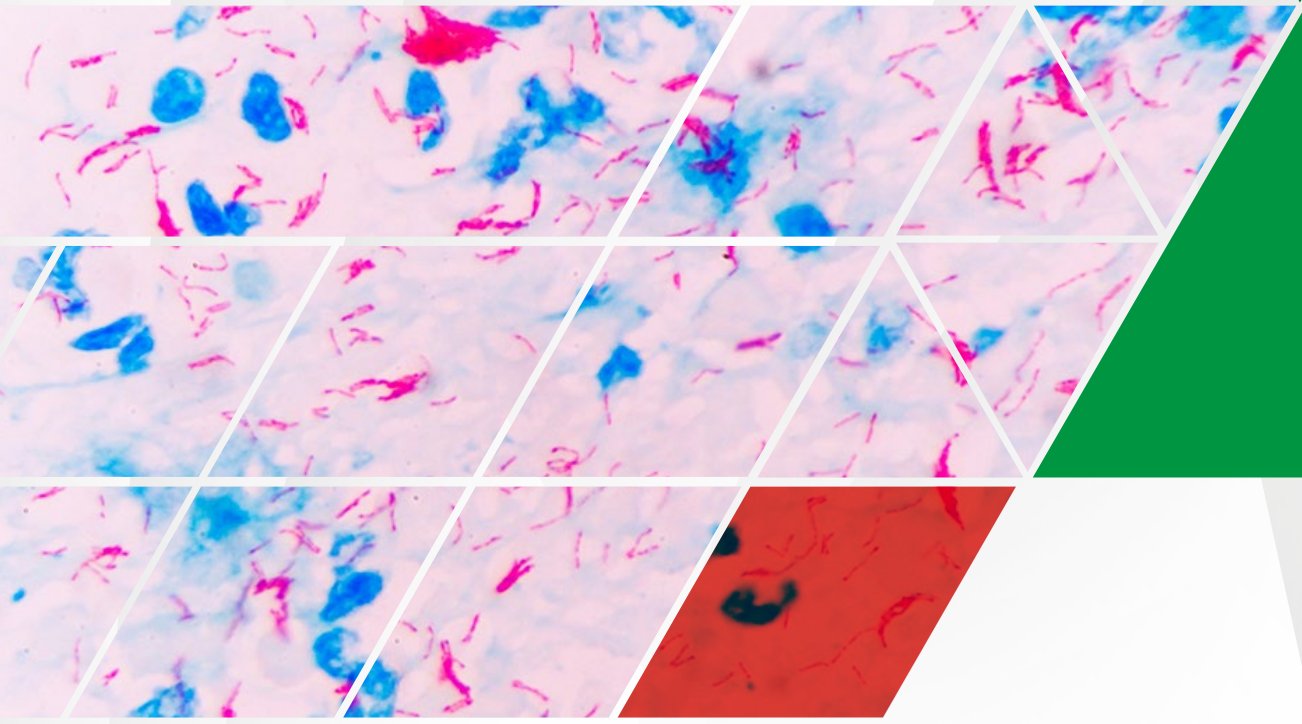
THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH



NATIONAL TUBERCULOSIS AND LEPROSY STRATEGIC PLAN VI 2020-2025

Theme:
Impactful Innovative Strategies towards Ending TB and Leprosy Suffering and Burden

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LIST OF ABBREVIATIONS

ACSM	Advocacy, Communication and Social Mobilization
AFB	Acid Fast Bacilli
AIDS	Acquired Immuno-Deficiency Syndrome
APHFTA	Association of the Private Health Facilities in Tanzania
ART	Anti-Retroviral Therapy
CBR	Community Based Rehabilitation
CCHP	Comprehensive Council Health Plan
CDC	Centre for Diseases Prevention and Control
CHIF	Community Health Insurance Fund
CHMT	Council Health Management Team
CSSC	Christian Social Services Commission
CTBC	Community Based Tuberculosis Care
CTRL	Central Tuberculosis Reference Laboratory
DAS	District Administrative Secretary
DED	District Executive Director
DMO	District Medical Officer
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment, Short course
DRS	Drug Resistance Survey
DST	Drug Susceptibility Testing
DTLC	District Tuberculosis and Leprosy Coordinator
EAC	East African Community
ECSA	East, Central, and Southern African
EQA	External Quality Assurance of AFB microscopy, culture
ETL	Electronic TB and Leprosy Register
FBO	Faith Based Organization
GDP	Gross Domestic Product
GFATM	Global Fund Against AIDS, Tuberculosis and Malaria
GLC	Green Light Committee
GLRA	German Leprosy and Tuberculosis Relief Association
GNI	Gross National Income
HIV	Human Immunodeficiency Virus
HSSP	Health Sector Strategic Plan
HSR	Health Sector Reforms
IDU	Intravenous Drug users
ISTC	International Standard of Tuberculosis Care
IUATLD	International Union Against Tuberculosis and Lung Diseases
KCMC	Kilimanjaro Christian Medical Centre
KNCV	Royal Netherlands Tuberculosis Association
LED	Light Emitting Diode
LGAs	Local Government Authorities
MAREMA	Manyara Regional Mining Association
MDGs	Millennium Development Goals
MDR	Multi- Drug Resistance

MDT	Multi Drug Therapy
MoH	Ministry of Health, Community Development, Gender, Elderly and Children
MSD	Medical Stores Department
MTEF	Medium Term Expenditure Framework
NACP	National AIDS Control Programme
NACOPHA	National Council for People Living with HIV and AIDS
NGO	Non-Governmental Organisation
NMSF	National Multisectoral Strategic Framework
NIMR	National Institute for Medical Research
NSFD	Novartis Foundation for Sustainable Development
NSGRP	National Strategy for Growth and Poverty Reduction (MKUKUTA)
NTLP	National Tuberculosis and Leprosy Programme
PAL	People Affected by Leprosy
PASADA	Pastoral Activities and Services for people with AIDS
PATH	Programme for Appropriate Technology in Health
PHCSDP	Primary Health Care Service Development Programme
PITC	Provider Initiated Testing and Counselling
PLHIV	People Living with HIV
PORALG	President's Office, Regional Administration and Local Government
POD	Prevention of Disability
PSU	Pharmaceutical Supplies Unit
RAS	Regional Administrative Secretary
RH	Reproductive Health
RHMT	Regional Health Management Team
RMO	Regional Medical Officer
RTLC	Regional Tuberculosis and Leprosy Coordinator
SADC	Southern Africa Development Cooperation
SOP	Standard Operating Procedure
TACAIDS	Tanzania Commission for AIDS
TB	Tuberculosis
TIKA	Tiba kwa Kadi
TLA	Tanzania Leprosy Association
TLCU	Tuberculosis and Leprosy Central Unit
TMDA	Tanzania Medicines and Medical Devices Authority
UCSF	University of California San Francisco
USAID	United States Agency for international Development
WHO	World Health Organization
X-DR	Extremely Drug resistance

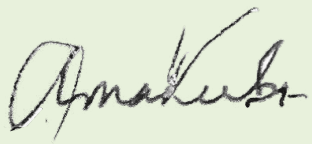
FOREWORD

The sixth Strategic Operational Plan for the National Tuberculosis and Leprosy Programme envisions a Tanzania free of TB and Leprosy diseases. This vision conforms to the national priorities of building a nation with healthy people by decreasing deaths caused by communicable diseases. This NOSP paves a way of attaining the SDGs goals by 2030 and the Global strategies to end TB and Leprosy by 2035. The plan has ambitious yet feasible objectives, which will make the country to be able to attain the vision of reducing deaths and disabilities caused by TB and Leprosy diseases. The plan incorporates lessons learnt and evidence from the previous NSP V, which was the initial plan towards ending of the diseases. The plan is a patient-centred and aims to achieve the following objectives by 2025:

1. To increase TB treatment coverage from 53percent in 2018 to 90percent by innovatively addressing barriers to access, utilization, and the needs of the key and vulnerable populations for TB care and prevention services.
2. To expand access to quality TB diagnostic services, including adoption of new technologies by 2025.
3. To maintain the proportion of children with TB among the notified cases at 15percent and to increase the ratio of ages at '0-4':5-14 years from 1.3 in 2019 to 1.5 by 2025,
4. To increase RR/MDR-TB cases detected and enrolled for treatment from 54 to 90percent of the estimated TB cases among the notified by 2025.
5. To Strengthen the management of co-morbidities including Collaborative TB/HIV,TB/Diabetes
6. To strengthen TB services to the population of miners and their families by 2025
7. To reduce leprosy prevalence in all endemic councils by 2025
8. To ensure availability of supportive systems and strengthened Program management for the implementation of TB and Leprosy Services by 2025
9. To ensure implementation of evidence-based interventions and decision making through institutionalized efficient M&E system and coordination of researches by 2025.

Achieving the above objectives would require both medical and non-medical interventions, necessitating for a multi-sectoral approach. The Government remains fully committed to the implementation of this NTLP SP VI (2021-2025).

I therefore, call upon the entire health sector, our local and international partners, collaborators, and all the Tanzanian people to work together during the implementation of this Plan to achieve the set milestones of ending TB and Leprosy in our country.



Prof. Abel N. Makubi
Permanent Secretary

STATEMENT FROM THE CHIEF MEDICAL OFFICER

TB and leprosy have continued to be public health importance diseases in the country. The Government of the United Republic of Tanzania has made significant progress towards attaining the ambitious mission of ending TB and of eliminating leprosy. TB incidences decreased from 170,000 in 2014 to 142,000 in 2018 and TB case notifications increased from 65,000 in 2015 to 75,000 in 2018 during the previous NSP V. This trend in the reduction of TB burden makes Tanzania among a few countries that on track towards achieving the global End TB strategy year 2020 milestones.

Likewise, Tanzania has observed a gradual but progressive reduction of the burden of leprosy in the last five years, with 2,457 notified cases in 2015 and 1,607 in 2019. The country attained the global target of leprosy elimination ten years ago; however, one of the 17 countries notified more than 1,000 leprosy cases per year.

The sixth Strategic Plan of NTLP builds on the foundation from the previous plans, which aimed at reaching missing people with TB and Leprosy. The Plan extensively explores critical interventions across the continuum of care to address the challenges on unreached, undiagnosed, and unreported cases to close the gap between the estimated and the notified cases. This plan provides technical guidance on the implementation of TB and Leprosy interventions in Mainland Tanzania and Zanzibar.
The Strategic Plan is a crucial resource mobilization tool for the set goals of the country. The funding mobilization through domestic and other sources is thus an essential part of the strategy and hence strong engagement of the Government with other sectors will be highly needed. In line with this, a multi-sectoral and partnership framework of spearheading the implementation of the interventions is a critical step towards the realization of this plan.

I wish to congratulate the NTLP of the Department of Preventive Services for developing this NSP, which is rich of evidence-based interventions aligning with the national and global strategies.

Dr. Aifello Wedson Sichalwe
Chief Medical Officer

ACKNOWLEDGMENTS

The sixth Strategic Plan of the National Tuberculosis and Leprosy Programme is a result of committed work of GOT, partners, and stakeholders who are in a mission of seeing a Tanzania, free of TB and Leprosy deaths and suffering. The plan has been developed in a participatory manner to ensure ownership. I want to thank the President of the United Republic of Tanzania and top leadership of the MOHCDGEC for providing vision, guidance, and continuous support to this Plan.

I wish to thank our development partners whose technical and financial support made the development of this plan possible.

Special appreciation goes to PORALG through its Department of Health and Social welfare for their guidance and collaboration during the development of this plan. We are grateful to the experts from R/CHMTs and service providers for contributing in the review of the ending NSP V and participating in the development of this plan.

I also wish to acknowledge the writing team lead by Dr Andwele Mwansasu, the leading consultant for the development of this plan and Dr Emmanuel Matechi, the Program's Global Fund (GF) Advisor who coordinated the whole process. Their extensive knowledge and expertise made gathering and synthesis of all the materials for this SP a smooth process.

Specifically, I would like to mention our partners in the National TB and Leprosy Program (NTLP) for their heartfelt dedication to the work, the World Health Organization (WHO), Global Fund Against AIDS, Tuberculosis and Malaria (the Global Fund), and the United States Agency for International Development (USAID). Others include the Centre for Diseases Prevention and Control (CDC)/ The President's Emergency Plan for AIDS Relief (PEPFAR) and their implementing partners, the International Organization for Migration (IOM), the Royal Netherlands Tuberculosis Association (KNCV)-Challenge TB, the German Leprosy Relief Association (GLRA), and the Association of Private Health Facilities in Tanzania (APHFTA). Others are The Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), DELLOITE, FHI 360, Management, and Development for Health (MDH), PATH, Eastern Africa National Networks of AIDS and Health Service Organization (EANNASO), The Palladium Group, Amref Health Africa and MKUTA.

Dr. Beatrice K. Mutayoba
Director of Preventive Services

EXECUTIVE SUMMARY

Prepared in a participatory manner, the new sixth National Strategic Plan for TB and Leprosy is a patient centric focused. The Sixth NSP has invested in the interventions of strengthening and scaling up of the approved high impact innovative approaches in the areas of Quality Improvement (QI) model, Community Systems Strengthening (CSS), productive engagement of other providers, strengthening diagnostic network and expanding quality TB services among vulnerable populations. The plan maintains the efforts and has done more on DR TB and TB/HIV and other endangering co-morbidities" The Plan will address the social economic, human rights and gender related barriers to the TB and Leprosy services. There are nine objectives set to attain the goal of the reduction of the burden of the two diseases and suffering as follows:

1. To increase TB treatment coverage from 53 percent in 2018 to 90 percent by innovatively addressing barriers to access, utilization, and the needs of key and vulnerable populations for TB care and prevention services.
2. To expand access to quality TB diagnostic services, including the adoption of new technologies by 2025.
3. To maintain the proportion of children with TB among the notified cases at 15percent and increase the ratio of ages at '0-4':5-14 years from 1.3 in 2019 to 1.5 by 2025.
4. To increase RR/MDR-TB cases detected and enrolled for treatment from 54 to 90percent of the estimated TB cases among the notified cases by 2025.
5. To strengthen the management of co-morbidities including Collaborative TB/HIV, TB/Diabetes
6. To strengthen TB services to the population of miners and their families by 2025
7. To reduce leprosy prevalence in all endemic councils by 2025
8. To ensure availability of supportive systems and strengthened Program management for the implementation of TB and Leprosy Services by 2025
9. To ensure implementation of evidence-based interventions and decision making through institutionalized efficient Monitoring and Evaluation system and coordination of researches by 2025.

In setting NSP VI targets, NTLP built on the success of implementing the fifth National Strategic Plan (2015-2020). The above-mentioned objectives are intended to achieve:

- 50percent reduction in tuberculosis incidence rate (compared to 2015);
- 75 percent reduction in number of tuberculosis deaths (compared to 2015);
- 50 percent reduction of TB affected families facing Catastrophic costs due to TB
- 0 children (under fifteen years of age) newly diagnosed with Leprosy presenting with Grade 2 Disabilities at diagnosis

The National Plan has four components all connected and linked together as follows, the core plan, which is the narrative part, the Operational Framework and the Budget summary, which is the foundation for costing the NSP, the Laboratory strategic Operational Plan for specific diagnostic networking strategies and the Monitoring and Evaluation Plan for tracking Program progress and measuring performance.

This Plan is the basis for costing and funding support from internal sources and from Development Partners (DPs). The plan also provides a platform around which Development Partners, Key Players, and Stakeholders will implement TB and Leprosy activities in a coordinated and harmonized manner. The plan will serve as a resource mobilization tool to be used in the application of funding support such as the Global Fund against AIDS, Tuberculosis, and Malaria (GFATM) New Funding Mechanism model, USAID funded projects, PEPFAR/CDC, GLRA, WHO, and other similar funders. Finally, the NSP VI development process establishes baseline indicators and targets for monitoring progress, evaluating the TB and Leprosy interventions, and for taking appropriate actions in the plan period (2020-2025) and in other subsequent plans.

SECTION 1: INTRODUCTION

1.1 PURPOSE OF THE NATIONAL STRATEGIC PLAN FOR TB AND LEPROSY

The National Strategic Plan (NSP) VI (2020-2025) for Tuberculosis (TB) and Leprosy addresses the current and future challenges in the context of a changing economic, social, and technological (PEST) environment as outlined in the national, regional, and global strategies. Informed by the external program review, the epidemiological and impact analysis, and other program progress reports, the development of the Strategic plan will promote a dialogue and consensus-building around TB/Leprosy critical priority interventions for the coming five years.

The National Strategic Plan is the basis for costing and funding support from internal sources and from Development Partners (DPs). The plan also provides a platform around which Development Partners, Key Players, and Stakeholders will implement TB/Leprosy activities in a coordinated and harmonized manner. The plan will serve as a resource mobilization tool to be used in the application of funding support such as the Global Fund against AIDS, Tuberculosis, and Malaria (GFATM) New Funding Mechanism model, USAID funded projects, PEPFAR/CDC, and other similar funders. Finally, the National Strategic Plan VI development process establishes baseline indicators and targets for monitoring progress, evaluating the TB and Leprosy interventions, and for taking appropriate actions in the plan period (2020-2025) and in other subsequent plans.

1.2 KEY COMPONENTS OF THE NSP FOR TB AND LEPROSY

The National Plan has four components all connected and linked together. The core plan is the narrative component of the SP. The general operational plan details the mechanisms of implementing the Core plan focusing on year one implementation and the Laboratory Operational Plan details specific diagnostic plans for the period of the SP in strengthening the diagnostic networking for TB and Leprosy services. The Monitoring and Evaluation Plan tracks program progress, measures achievements, and assesses the changes the program has made throughout the implementation period and provides corrective measures during the plan period. The Technical assistance plan identifies interventions and activities that need technical assistance. The Budget plan draws from the details of the work plan activities, which are the foundation for costing the SP. The fifth part comprises the Laboratory Operational plan to guide the TB and diagnostic network functioning.

1.3 PROCESS OF ASSEMBLING THE STRATEGIC PLAN

The preparation of this Strategic Plan started with the analysis of progress made and challenges faced during the implementation of the previous plan. The people-centred framework (PCF) approach was adopted in developing this SP VI. The framework has three main components: the continuum of care, the use of three major types of data, and the three planning steps[1] .

Data consolidation and mapping of data along the continuum of care was conducted. The data included, Results of the Health Sector Strategic Plan IV (HSSP IV) Midterm Evaluation, surveillance data, patient pathway analysis, MATCH analysis, special surveys (e.g., prevalence and drug resistance, catastrophic cost survey), TB and Leprosy related researches and assessments and the Demographic Health Survey,

The output had evidence of the gaps in the overall continuum of care in three major areas -epidemiological, people-centred, and system-related evidence. The evidence was discussed during the stakeholder consultative workshops in which participants reached evidence-informed consensus on priority issues that the NOSP should address. The consultative process uses PCF approach of Problem prioritization, Root cause analysis, and Intervention optimization derive the priorities. The workshop involved participants from the national, (MoH and PO RALG), regional (RMOs and RTLCs) Councils (DMOs and DTLCs) communities, (CSOs and EX TB people) technical partners, and NGOs.

The Joint External Program review was then conducted under the lead of the WHO and its results were consolidated together with the PCF and stakeholder's consultation findings to generate interventions for the new SP. With assistance of the Consultant, the interventions were then translated into actionable activities of which through dialogues with stakeholders the activities were refined and prioritised.

[1]People-centered framework for tuberculosis programme planning and prioritization - User guide. Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.

SECTION 2: BACKGROUND

2.1 GEOGRAPHY

The United Republic of Tanzania is the largest country in East Africa, occupying an area of 945,087 sq. Km. Tanzania lies between latitudes 1°S and 12°S and longitudes 30°E and 40°E. The country shares borders with eight neighbouring countries, namely: Kenya and Uganda to the north, Rwanda, Burundi, and the Democratic Republic of Congo to the west, and Zambia, Malawi, and Mozambique to the South. The eastern border is formed by the Indian Ocean (See Annex 1 Map of Tanzania).

There are 31 administrative regions (26 in Mainland Tanzania and 5 in Zanzibar), 166 administrative districts, and 185 councils. The districts have about 4 - 5 divisions, which have 3-4 wards (Mainland) or Shehias (Zanzibar) and each ward has 5-7 villages.

2.2 DEMOGRAPHICS

Tanzania has a population of 55.8 million inhabitants and approximately 51percent of the total population comprises females. The population is relatively young, with 46percent of the total population under 15 years of age. The annual population growth rate, according to the 2012 Population and Household Census, is 3.1 percent. The average household size is 4.9 inhabitants. The population density was 63.58 people per sq. Km in 2018[2]. Higher population clusters occur in the northern half of the country and along the eastern coast. Almost a third of the population is urban.

Table 2.1: Main demographic indicators 2019

Indicator	Value
Population	55,890,747
Population density (people per Sq. km)	63.6
Population composition	Males 49%, Females 51%
Population growth per year	3.1%
Children under 15 years of age	46%
Total Fertility Rate	4.5
Life expectancy	63 years for Males, 68 years for Females

Source: NBS: National population projection February 2018

2.3. SOCIO-ECONOMIC PROFILE

Tanzania is classified by the United Nations (UN) as a lower middle-income country with the Gross National Income (GNI) per capita of US$1,080 in 2020[3] . About 26.4percent of Tanzanians live below the national poverty line. The Gross Domestic Product (GDP) has been growing at an average rate of 6.7percent from 2013 to 2018 in Mainland Tanzania. The percentage shares of GDP at current prices (after adjustments of taxes on products) by sectoral contribution include agriculture and mining (30.7%), industry and construction (29.1%), and services (40.2%)[4] . The primary education net enrolment rate was 94.2 percent, and the adult literacy rate was at 79 percent in 2018. According to the National Bureau of Statistics5, the national labour force has grown from 22.3 million people in 2014 to 24.3 million people in 2018. In addition, there has been a decline in the unemployment rate from 10.3 percent in 2014 to 9.7 percent in 2018.

[3]World Bank. https://data.worldbank.org/country/tanzania. Accessed 27th March, 2020. 4Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12 and 2007-8 5The 2010 Tanzania Demographic and Health Survey.
[4]National Bureau of Statistics. https://www.nbs.go.tz/index.php/en/tanzania-in-figures/422-tanzania-in-figures-2018. Accessed March 05th 2020
[5]Ibid

2.4 THE HEALTH SYSTEM

2.4.1 Governance and Leadership

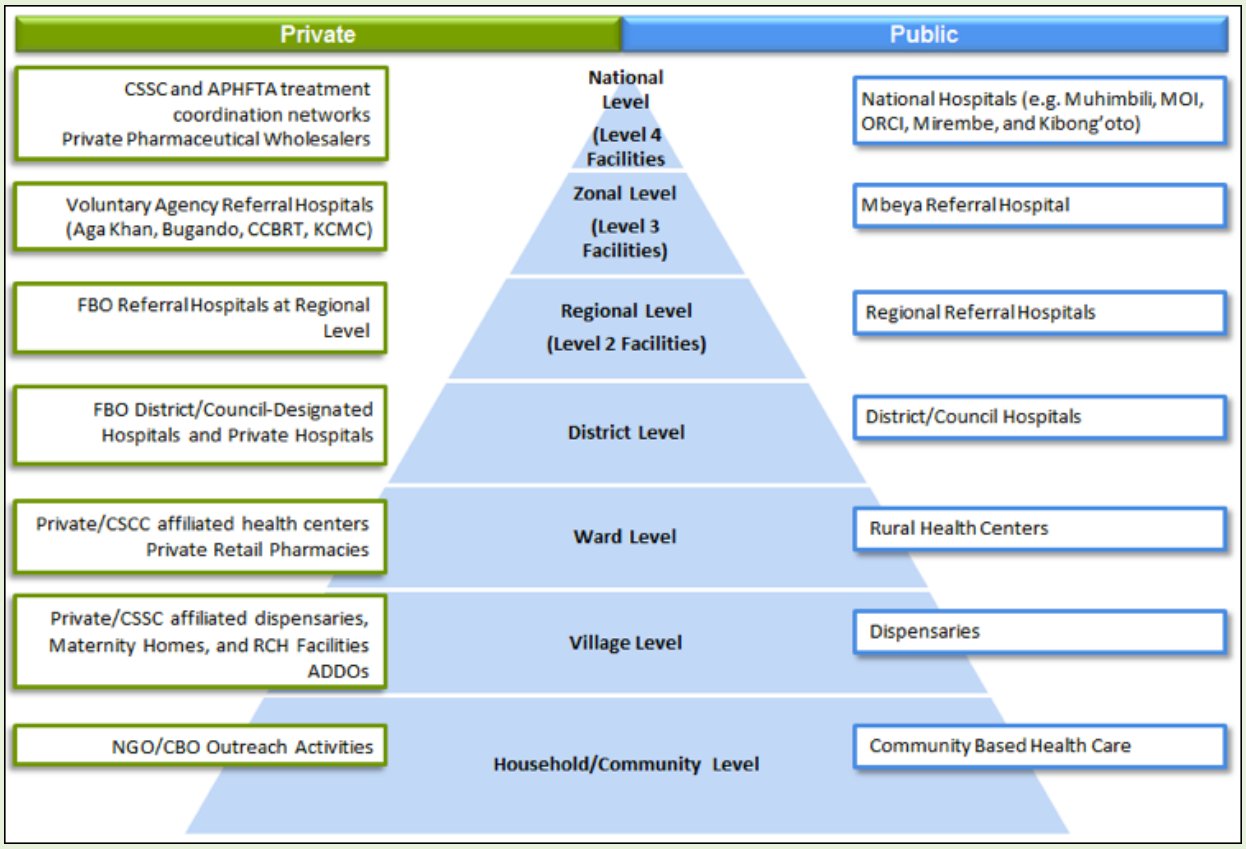
Tanzanian Government has decentralized most of its functions through Decentralization by Devolution (D by D). In this context, the President's Office-Regional Administration and Local Government (PO-RALG) is responsible for D by D and provides the interface between Local Government Authorities (LGAs) and line ministries. At the central level, the Ministry of Health, Community Development, Gender, Elderly, and Children (MoH) is responsible for policy formulation, resource mobilization, technical guidance, monitoring, and evaluation of guidelines implementation and international partnerships. While the PO-RALG is responsible for the management and administration of Regional and Council health services, LGAs are responsible for health service delivery within their Councils.

The overall National Health Policy is
To increase life expectancy and improve quality of life by reducing deaths, diseases burden and dissabilities especially for vulnarable groups and put health system delivery which adress the need of all citizen

2.4.2 Service Delivery

The delivery of health services follows a pyramidal structure (Figure 2.1)[6]. At the bottom of the pyramid are Community-based health activities that bring health promotion and prevention to the communities. Dispensaries and health centres[7] provide services at the village and ward levels, respectively, while District /Council hospitals serve as referral hospitals at the district level. Regional Referral Hospitals (RRH) provide specialist medical care at that level. Zonal and National Hospitals offer advanced medical care and teach hospitals for medical, paramedical, and nursing training. The provision of pharmaceutical services is through public and Faith-Based Organizations' (FBO) health facilities, private pharmacies, and Accredited Drug Dispensing Outlets (ADDOs).

Figure 2.1: The health care pyramid in Tanzania (public and private equivalent)



Source: The Health Sector Strategic Plan 2015 – 2020 (HSSP IV)

[6]The Health Sector Strategic Plan 2015 – 2020 (HSSP IV) http://www.tzdpg.or.tz/fileadmin/documents/dpg_internal/dpg_working_groups_clusters/cluster_2/health/Key_Sector_Documents/Induction_Pack/Final_HSSP_IV_Vs1.0_260815.pdf

[7]Dispensaries provide preventive and curative outpatient services, while health centers can also provide inpatient and minor surgical services

The 2019 analytical review of the Health Sector Strategic Plan IV made significant improvements in infrastructural development with more than 11,000 health facilities in the country (functional, and those under construction) covering an average of 2.1 facility per 10,000 people (MOH Health facility registry). However, there is still a significant shortage of health care workers; the available workforce meets about 50percent of the requirement.

2.4.3 Disease Burden

For the past ten years, there has been a decline in the Under Five Mortality Rate and Infant Mortality Rate as shown in Table 2.2. Consequently, improvement in the life expectancy, from 62 years in 2012 to 64 years in 2018 is noted. The total fertility rate (TFR) in Tanzania is 5.2 children per woman, and half of the women have their first child before the age of 20 years. Most deaths occur at home, and 10 percent of these occur in hospitals. In 2018, infectious diseases, maternal and prenatal causes, and nutritional conditions accounted for 58 percent of hospital deaths, while non-communicable diseases and injuries accounted for about 35and 7 percent of the deaths respectively[8] . In 2018, the leading reported causes of inpatient deaths were Malaria (12.75%), respiratory diseases (10.08%), HIV/AIDS (8.04%), anaemia (7.78%), and cardio-circulatory diseases (6.31%)[9]. `

Table 2.2: Health and Disease Indicators

Indicator	2010	2019
Infant mortality rate per 1000 live births	51	30.9
Under-five mortality rate per 1000 live births	81	67
Maternal mortality rate per 100,000 live births	454	556
Malaria prevalence in children under 5	9% (2012 TMIS)	7% (2017 TMIS)
HIV prevalence (adults aged 15-24 y)	4.2% (2012 THMIS)	3.0% (THIS 2016/17)

2.4.3 Health Financing

The Government has been funding the health system through its resources (revenue collected from income tax and value-added tax, development partner's contributions), grants and loans for health programs, health insurance schemes, out-of-pocket contributions (user fees), and the Health Basket Fund (HBF). To increase accountability and governance at the Primary Health Care level, in the health sector, the Government introduced a Direct Health Facility Financing (DHFF) program in 2018[10]. The Government policy prohibits user fees for all chronic diseases, including HIV, TB, and MCH, in all public and private services. However, while TB treatment was free, the user fee generally had to be paid to access diagnostic services.

Tanzania Health Insurance Schemes-2019

- National Health Insurance Fund (NHIF)
- Community Health Insurance Fund (CHIF) /Tiba kwa Kadi (TIKA)
- NSSF-SHIB,

The health sector budget has decreased by 8 percent from TZS 2,22 (10%) billion allocated in 2017/18 to TZS 2,054 (8.9%) billion allocated in 2018/19, which is much lower than the Abuja targets of 15 percent. The total health expenditure (THE) per capita was much lower than the recommended per-capita allocation of USD 112 (WHO 2017). There was an increase in Domestic Allocation from 74 percent in 2017/18 to 84 percent in 2018/19[11], indicating that Tanzania has become less dependent on external sources.

[8]The Health Sector Strategic Plan 2015 – 2020 (HSSP IV). Analytical report, September 2019
[9]Hospital mortality Patterns and Causes of Death in Tanzania 2006–2015. National Institute for Medical Research and Ministry of Health, Community Development, Gender, Elderly and Children, Dar es Salaam, Tanzania
[10]https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-018-0400-3
[11]SIKIKA. Analysis of the government of Tanzania budget allocation to the health sector for fiscal year 2018/19. https://sikika.or.tz/images/content/mp3/Budget%202018:19.pdf. Accessed march 28th 2020

2.4.4 Health Insurance coverage

Health insurance systems in Tanzania are organized into a two-tier system, formal and informal sector insurance schemes. The coverage of the contribution-based health insurance schemes in the country is about 22 percent of the whole population of which CHF coverage is 11 percent. This is not close to the objective set in the HSSP III, which is to provide health insurance coverage of 30 percent of the population into CHF by 2015. The health insurance market is composed of five key players, the National Health Insurance Fund (NHIF), the National Social Security Fund – Social Health Insurance Benefit (NSSF-SHIB), the Community Health Fund (CHF)/ Tiba Kwa Kadi (TIKA), Private Health Insurance (PHI), and Community Based Health Insurance (CBHI)/Micro insurance.

Table 2.3: Description of Health Insurance Schemes in Tanzania

Dimension	NHIF	CHF	NSSF-SHIB	PHI	CBHI
Coverage #	3.12m beneficiaries (616,853phs)	5.06m beneficiaries (843,729)	51,300 beneficiaries (31,000 phs)	450,000 beneficiaries (150,000 phs)	440,000 beneficiaries
Coverage %	7%	12%	0.12%	1.02%	1%
Market segment	Civil servant (+Private)	Informal Low Income H/holds	Formal + Semi formal	Private	Informal Low Income H/holds
Enrolment	Mandatory	Voluntary	Voluntary	Voluntary	Voluntary
Collection meth	Payroll deduction	Remit @ HF	Payroll deduction	Remit to PHIs	Remit to CBHI
Premium range	6% of salary p.m (50/50 for employer/employee)	5,000-15,000 (+Matching grant) p.a	Part of 20% contribution p.m	300,000 – 950,000 p.a	30,000 – 40,000p. a
Benefit package	Medium range1	Primary & some hospital care	Broad range	Full range	Primary & Hospital care
Type of Benefit	In kind	In kind	In kind	In kind + Reimbursement	In kind
Provider payment	Fee for service	Capitation	Capitation	Fee for service	Capitation
Regulator	SSRA	SSRA	SSRA	TIRA	Unregulated

Source: Interviews with Stakeholders, 2013 and FSDT & Cenfri 2012, Insurance Diagnostic Study[12]

2.5. TB AND LEPROSY EPIDEMIOLOGY

2.5.1 Tuberculosis (TB)

2.5.1.1 TB Mortality and Incidence

There has been a significant downward trend in TB mortality from 56/100,000 in 2015 to 40/100,000 population in 2018 (Figure 2.2). TB mortality among HIV negative and HIV positive TB cases decreased by 28 and 38 percent, respectively. TB deaths decreased from 30,000 in 2015 to 22,000 in 2018. Likewise, there was a steady decline in TB incidence rates from 305/100,00 in 2015 to 253/100,000 in 2018 (Figure 2.2). The 4 percent annual reduction in TB incidence rate corresponds to the observed increase in case notifications and a decrease in the number and proportion of missed TB cases from around 113,002 (65%) in 2015 down to 59,776 (43%) in 2019. Tanzania is on track to achieving the End-TB 2020 milestones of a 35 percent **reduction** in

[12]FSDT & Cenfri 2012,Insurance Diagnostic Study for Tanzania, FSDT/Cenfri, Dar es Salaam.

the total number of TB deaths and a 20 percent reduction in TB incidence rate compared with the levels, which prevailed in 2015.

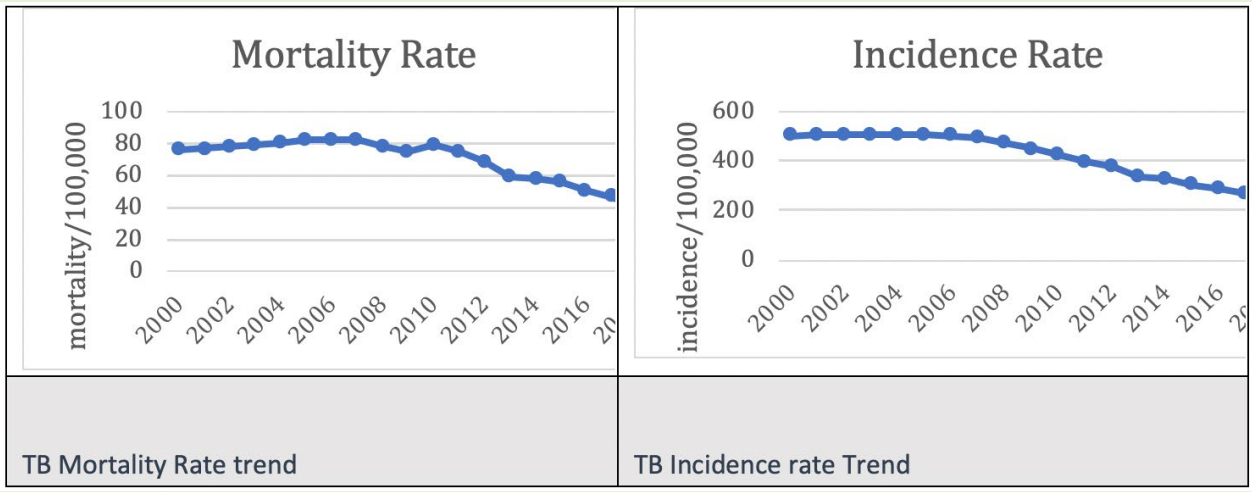


Figure 2.2: TB Mortality and Incidence
Source: WHO Global report 2019

2.5.1.2 Trends in TB notification

TB notification of all forms, new and relapses were 60,895 in 2015, and this gradually increased to 81,208 in 2019. The increase corresponds to 18 percent, decreasing trends in the estimated TB incidences. These changes could be the outcome of multiple initiatives, including the introduction and rollout of program quality improvement approaches in health facilities since 2016 and implementation of community TB initiatives to search the missing people with TB.

The age and sex distribution in TB notification shows that, the age group of 25-44 years has the highest notification in both males and females. Males continue to be more affected than females with a ratio of 1:1.5. There is a high notification rate for adults over 65 years of age indicating not only the increased risk of TB in the elderly population but also increased ability of health care workers to identify cases in the older generation.

The case notification rate (CNR) has improved throughout the implementation of the previous SP, ranging from 128 in 2015 to 145 in 2019. However, there is a constant disparity of trend observed in particular geographically areas. The east and central regions reported high CNR, while the western part of the south and the lake zone has consistently been registering low CNR compared to the neighbouring areas and councils as shown in Figure 2.3.

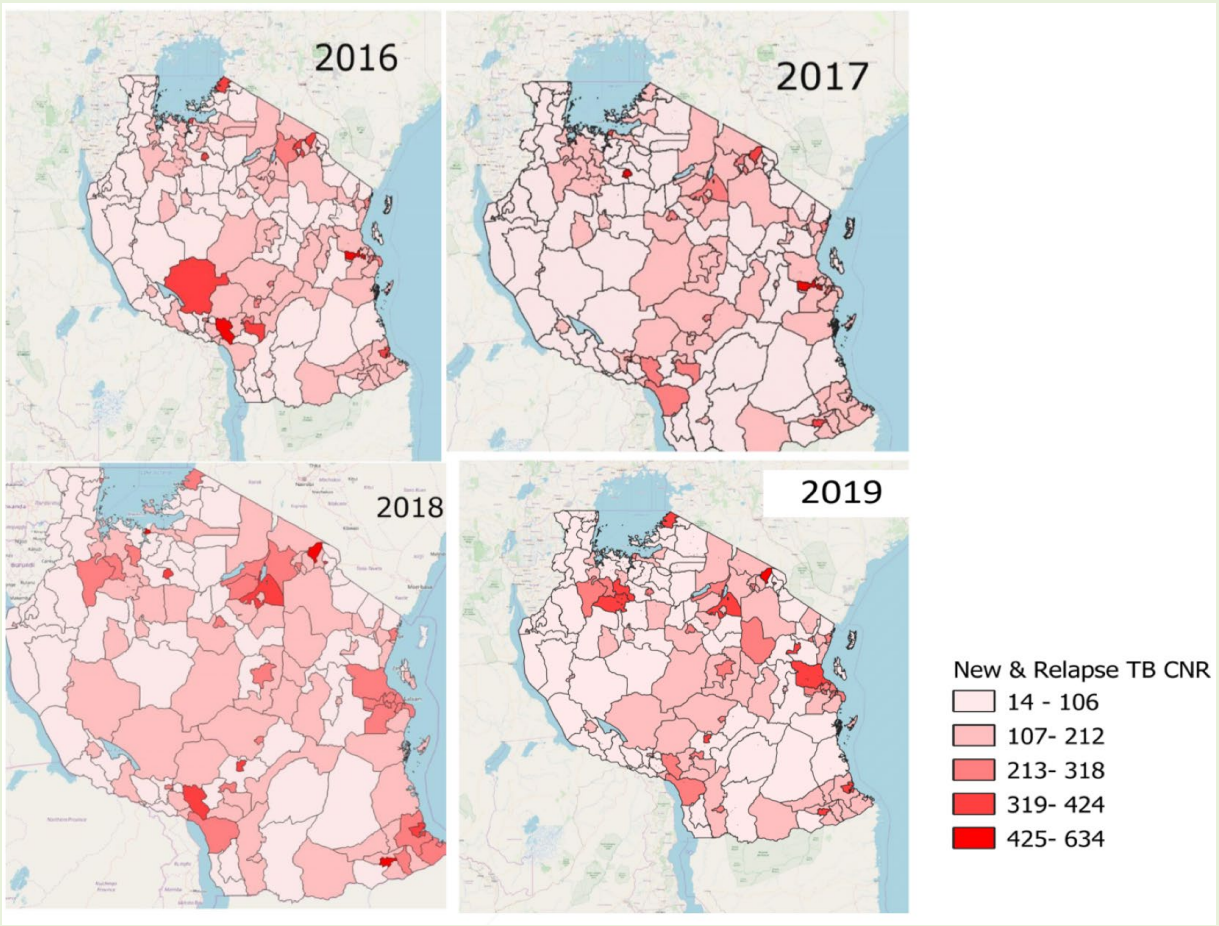


Figure 2.3: TB Case Notification Rate (CNR) Trend
Source of data: Tanzania TB MATCH analysis 2018 & 2019

2.5.1.3 Treatment Outcomes for Drug Susceptible TB

The country has maintained a high treatment success rate at over 90 percent, and in 2018, the treatment success rate was at its highest at 92 percent. Treatment outcomes show a decrease in the deaths among the notified cases from 6 percent in 2015 to 4 percent in 2018. Although the desired treatment outcomes are improving, a decrease in the cure rate from 34 percent in 2015 to 32 percent has been noted for year 2018.

2.5.1.4 Multi-Drug Resistant Tuberculosis

According to the second TB drug resistance survey (2018), the prevalence of Multi-Drug Resistant Tuberculosis (MDR-TB) was 0.97 percent among new cases and 12 percent among re-treatment cases. Notification of drug-resistant cases increased from 178 cases in 2015 to 534 cases in 2019 (Figure 2. 4). The improvements are mainly due to increased systematic TB screening at most outlets and coverage of molecular diagnostics, GeneXpert machines from 65 in 2015 to 238 in 2019.

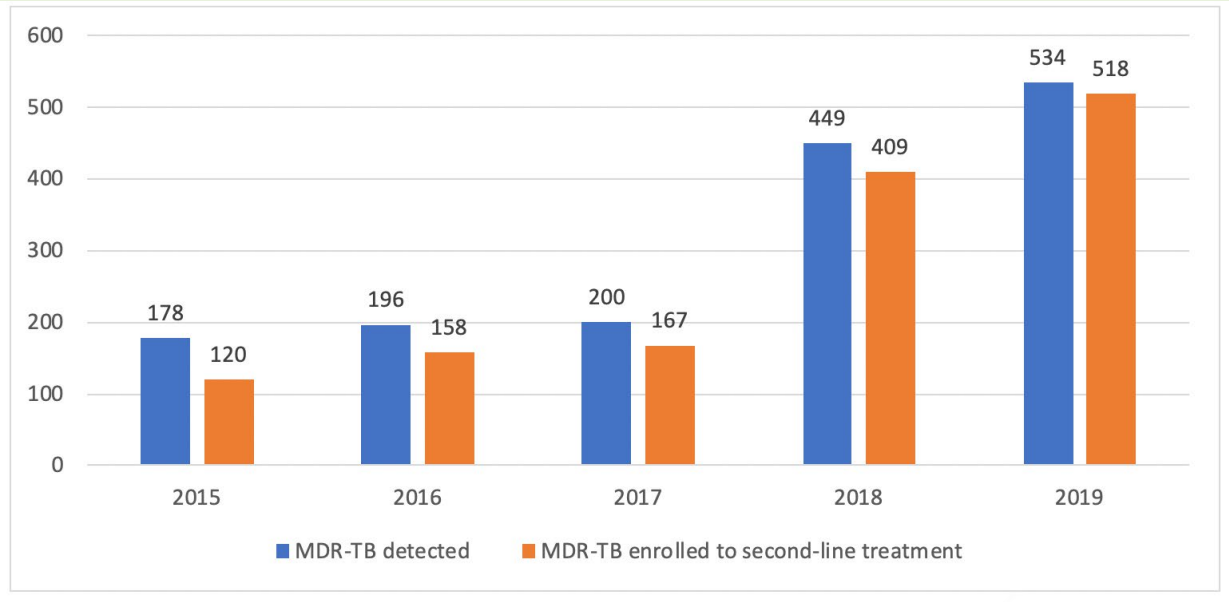


Figure 2.4: Trends in Numbers of MDR/RR-TB Notified 2010 -2019
Source: NTLP DHIS2 ETL

The treatment success rate of MDR-TB cases has been improving from 76 percent in 2014 to 83 percent for cases notified in 2017. This improvement has partly resulted from improved care and support services. The decentralization of the MDR-TB services has contributed significantly to these good outcomes.

2.5.1.5 Collaborative TB-HIV Activities

TB/HIV collaborative activities have been implemented since 2006 and thus testing for HIV among TB patients, and active screening for TB among HIV patients have been scaled-up countrywide. Between 2013 and 2019, there was a rising trend of coverage for HIV testing, registration for HIV care, and the starting of ART. Since 2017, 99 percent of TB patients tested for HIV, this was an increase of 93 percent from 2015. Furthermore, 99 percent of co-infected patients began ART. ART uptake increased from 85 percent in 2015 to 99 percent in 2019. On the other hand, the proportion of TB patients who are co-infected with HIV has decreased over time, from 39 percent in 2012 to 24 percent in 2019 (Figure 2. 5)

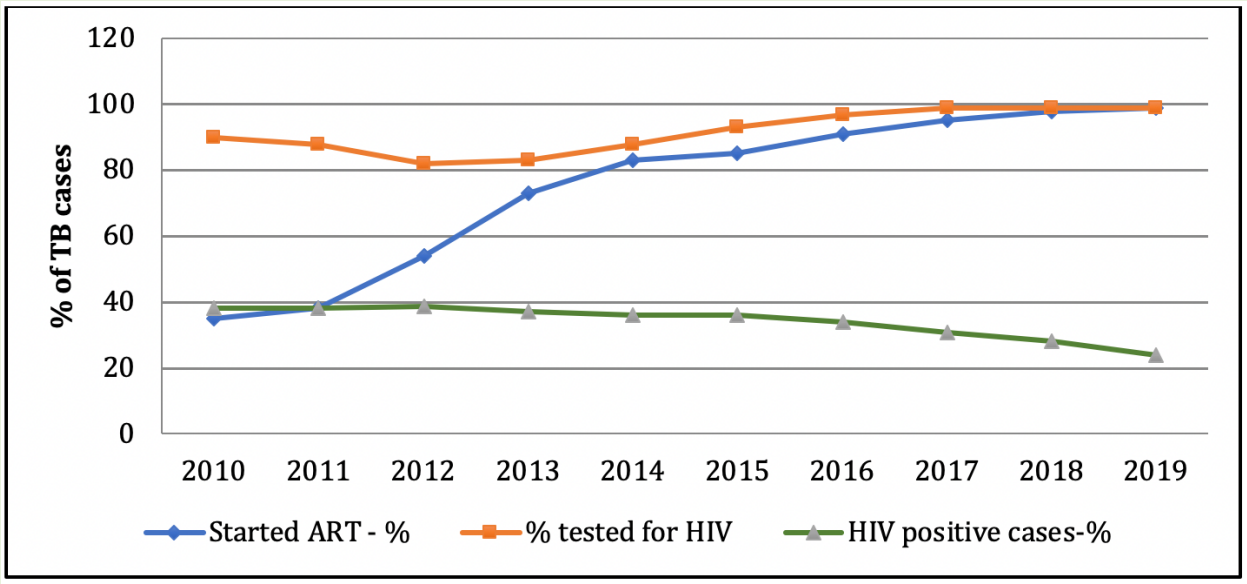


Figure 2.5: Percentage of TB Cases Tested For HIV: Tested HIV Positive, and of HIV Positive TB Cases Started on Treatment: 2010 - 2019
Source: DHIS2 ETL, 2020

The proportion of PLHIV screened for TB seemed to decrease from its peak of 91 percent n 2017 to 84 percent in 2019. The (HSHSP IV) 2017–2022recommend that 82 percent of clients on care should be initiated on TPT by 2019. Although not achieved then, TPT enrolment and completion generally increased from 10 percent in 2016 to 69 percent by June 2019.

2.5.1.6. Childhood TB

TB disease in children is a public health problem of particular significance because it is a marker for recent transmission of TB. It is difficult to estimate the "correct" proportion of childhood cases, but experts believe it should be around 15-20 percent in countries with high TB burden such as Tanzania. The proportion of paediatric TB cases in all TB notifications increased from 9.5 percent in 2015 to 15 percent in 2019 (Figure 2.6). The ratio of 0-4 to 5-15 has been at 1.3 for the past four years, which is below the ideal ratio of 1.5-3.0.

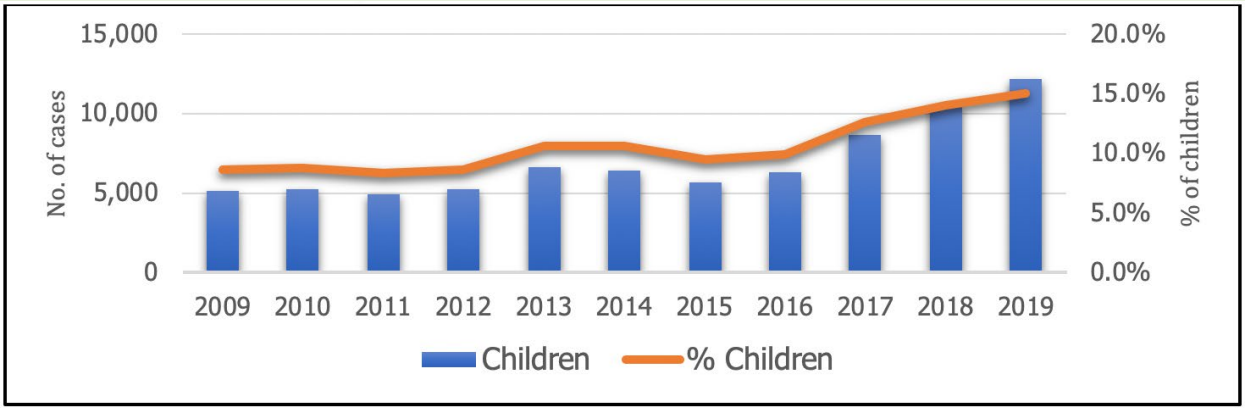


Figure 2.6: Number and Proportion of Children Notified With TB: 2009 - 2019
Source: DHIS2 ETL

Furthermore, data for 2017, 2018, and 2019 indicated a higher treatment success rate compared to all other age groups at 95.3 percent. However, cure rates are low at 14.6 percent and the co-infected children had a higher (8.3%) death rate than was the case with other paediatric TB patients (3.4%).

The coverage of TPT among the under-fives has gradually improved from 6.9 percent in 2015 to 34 percent in 2019.

2.5.2 Leprosy

2.5.2.1 Leprosy prevalence

Leprosy is a neglected tropical disease, which causes more physical deformities than other infectious diseases. Even though Tanzania attained global target of leprosy elimination, the country is still among those notifying more than 1,000 cases per year. In 2019, leprosy registered prevalence rate was 0.3/10,000 population down from 0.4/10,000 in 2015. At the national level, the Leprosy prevalence rate has remained below 1 case per 10, 000 population since 2006. However, 19 districts councils of the Mainland and 2 districts from Zanzibar reported the prevalence rates of the above threshold of 1 case per 10,000 population in 2019

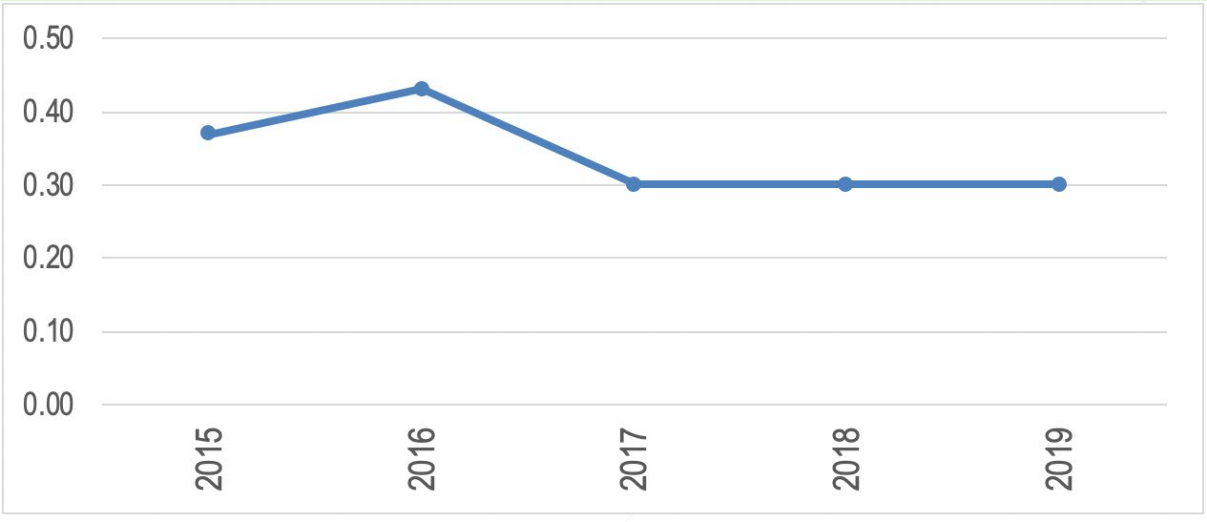


Figure 2.7: Trends of leprosy prevalence of rate: 2015 - 2029

2.5.2.2Leprosy detection

In the past five years, a significant decrease in newly notified leprosy cases of 31 percent was recorded from 2,297 in 2015 to 1,593 in 2020. The 2019 data show that, 70 percent of all the newly notified cases come from 9 regions of Morogoro, Dar es Salaam, Lindi, Tanga, Rukwa, Mtwara, Mwanza, Pwani, Dodoma, and the Island of Unguja. The prevalence detection ratio has remained around 1 since the year 2006 suggesting that MDT units continue removing from the registers all the patients completing their MDT treatment course in time.

The upward changes in the proportion of MB cases and the decline in the percentage of the children notified among the newly leprosy cases across the regions suggest the reduction in the incidences of the disease in the country with reduced disease transmission. However, there are many variations across regions with some reporting up to 20 percent of the children cases. Grade 2 disability among the new leprosy cases shows a gradual decrease, which has remained slightly above 10 percent. The aim was to lower the grade 2 disability to less than 8 percent by 2020.

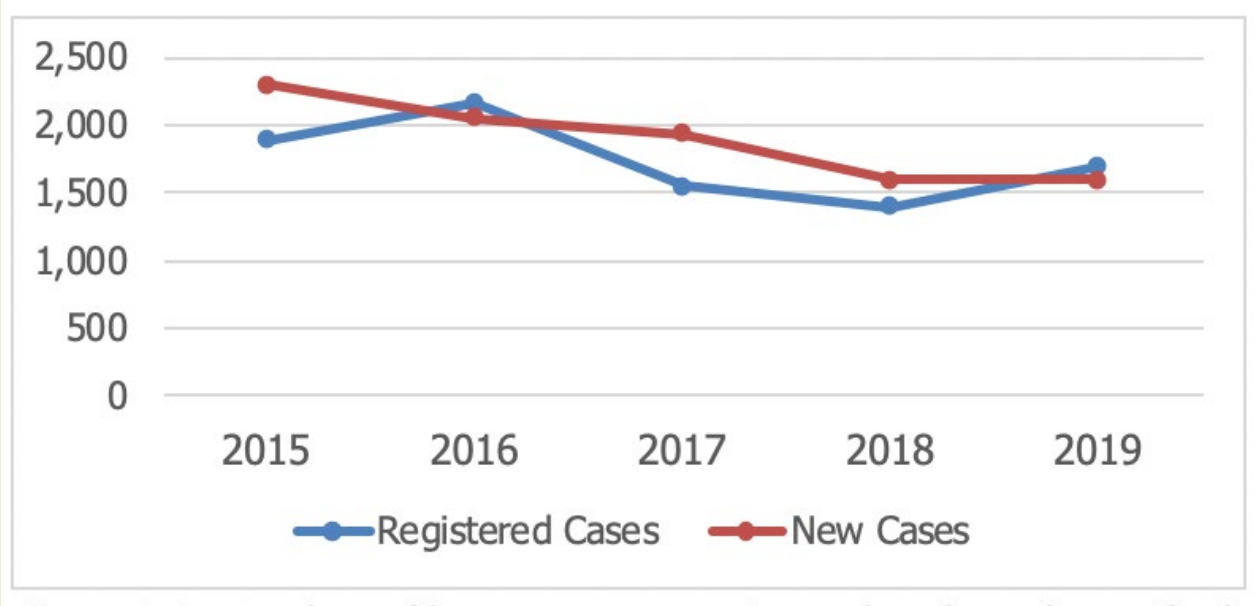


Figure 2.8: Number of leprosy cases registered and newly notified: 2015 - 2019

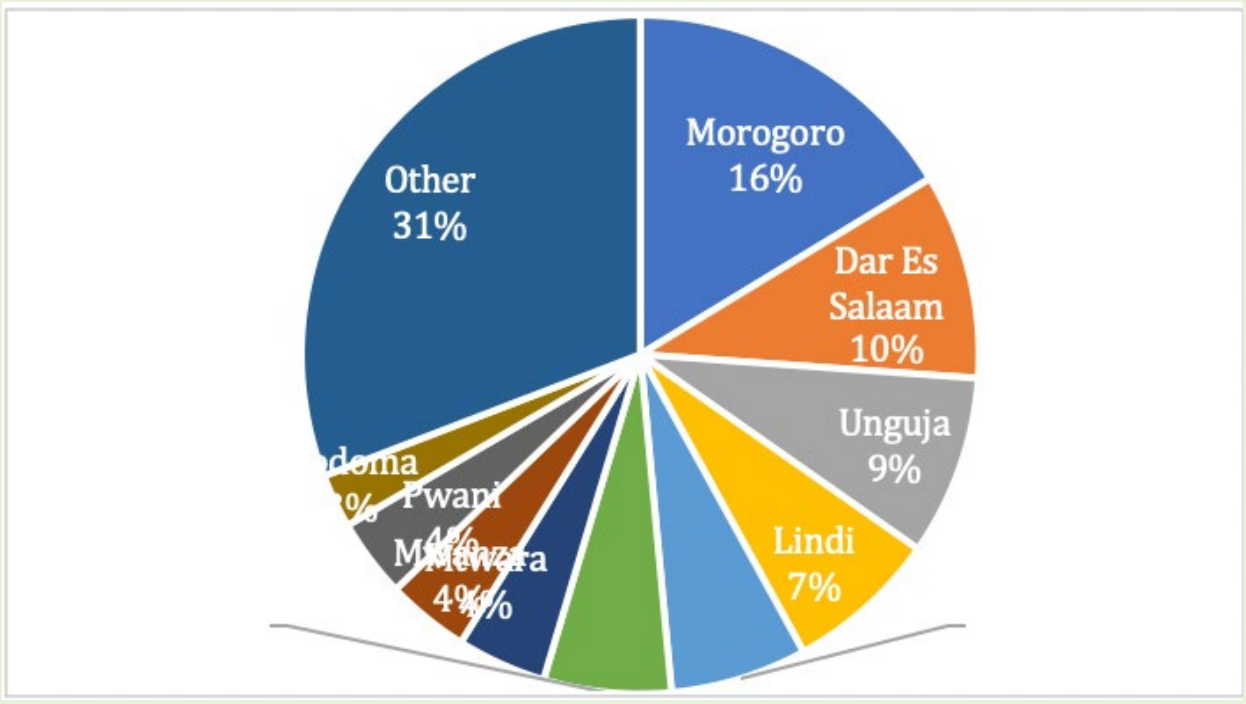


Figure 2.9: Percentage distribution of newly notified leprosy cases in 2019

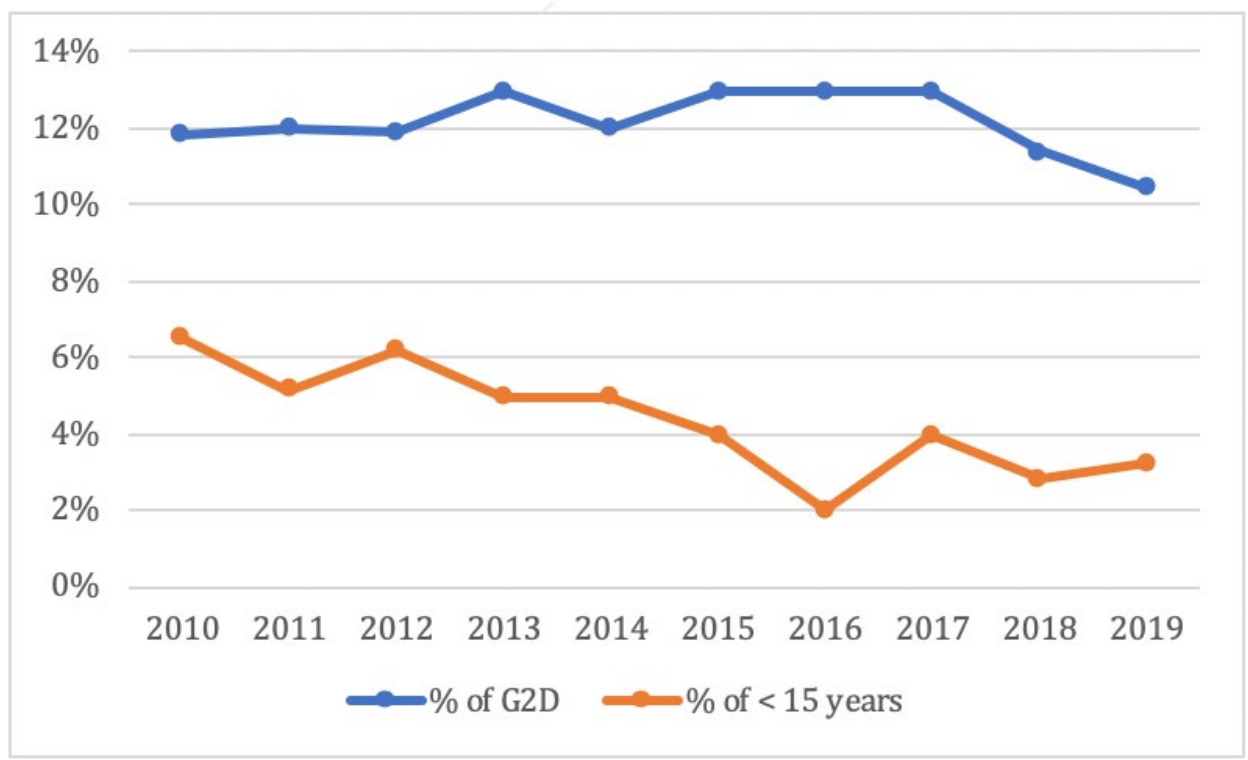


Figure 2.10: Proportion of children and grade 2 disabilities among newly notified leprosy cases: 2010 - 2019

SECTION 3: ORGANIZATION OF THE NATIONAL TUBERCULOSIS AND LEPROSY PROGRAM

3.1 INTRODUCTION

The National Tuberculosis and Leprosy control was established in July 1977. Structurally, NTLP is within the Unit of Epidemiology and Disease Control in the Directorate of Preventive Services (DPS) of the Ministry of Health, Community Development, Gender, Elderly, and Children (MoH)[13] . The Program has the mandate of coordinating preventive and control services of TB and leprosy within the country. Specifically, this entails policy and guideline formulation, technical guidance, planning, monitoring, evaluation, resource mobilization and coordination of procurement and distribution of the Program's specific drugs and commodities.

The PO RALG is in charge of the execution of the Program activities at the regional and Council levels. The Regional Health Management Team (RHMT) coordinates all TB, TB/HIV, and leprosy activities under the leadership of the Regional Tuberculosis and Leprosy Coordinator (RTLC). At the Council level, the District Tuberculosis, and Leprosy coordinator (DTLC) works closely with the TB/HIV officer to provide technical guidance to the Council Health Management Team (CHMT) who are responsible for TB, TB/HIV, and Leprosy control activities at the council and community levels[14] . Tuberculosis and Leprosy control is fully integrated into the primary health care services. Currently, there are 3,512 DOT centres, 1,613 diagnostic centres, 238 GeneXpert machines, and 145 MDR-TB treatment sites.

3.2 TB LABORATORY SERVICES

TB laboratory diagnostic services are provided through a decentralized network of TB laboratories organized in four levels. The Central TB Reference Laboratory (CTRL) is also the National TB Reference Laboratory (NTRL). The second is the intermediate level with six Zonal TB Reference Laboratories. The third level comprises thirty-one Regional referral laboratories and 188 district council hospital laboratories. The fourth level includes 1,387 peripheral TB diagnostic centres serving Health centres and dispensaries. While the CTRL is part of the TLCU structure and management, it operates within the National Health Laboratory System (NHLS) structure as well. It is coordinated by the Diagnostic Services Section of the Directorate of Hospitals of MoH, the NHLS[15] operates as a six-tiered network of health laboratories including TB laboratories at the zonal, regional, District, and peripheral levels.

3.3 PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

The MoH through NTLP coordinates quantification and procurement planning for TB and leprosy commodities. This is done as part of the integrated national quantification exercise in collaboration with the Pharmaceutical Services Unit (PSU) of the Ministry. The procurement of commodities is current through the Global Drug Facility of the Stop TB partnership. Other procurements for specific items are through the PSU. The Medical Stores Department (MSD) is responsible for storage and distribution of supplies, and has a dedicated department that coordinates PSM matters related to Programs.

3.4 PARTNERS AND COLLABORATORS

Among the international development partners include; Centres for Disease Control and Prevention (CDC), The Global Fund, German TB and Leprosy Relief Association (GLRA), and World Health Organization (WHO), the United States Agency for International Development (USAID), who

[13]Prof Anne Mills, Et al Equity in financing and use of health care in Ghana, South Africa, and Tanzania 11World Health Organisation Global TB report 2014.

[14]http://ntlp.go.tz/site/assets/files/1074/national_strategic_plan_2015_2020.pdf

[15]https://www.researchgate.net/publication/279202025_The_readiness_of_the_national_health_laboratory_system_in_supporting_care_and_treatment_of_HIVAIDS_in_Tanzania/link/5ac961a64585151e80a7b2e0/download

are the main financers of various Programme activities through different grants. Successful implementation would not be possible without the technical and financial support of other active stakeholders, partners, and collaborators, including implementing partners. These include PATH, the Netherlands Tuberculosis Foundation (KNCV), Save the Children, Amref, MDH, BMF, EGPAF, Delloite, Christian Social Services Commission (CSSC), THPS, EANNASO, FHI360, local research institutions, academia, the private sector organizations, as well as community-based Civil Society Organizations (CSOs) notably SHIDEPHA+, MKIKUTE, TOKIUKI, and TOKIKUTA.

3.5 SOURCE OF FUNDS

Tuberculosis and Leprosy control services are funded by both the government and development partners. The government supports the health system and infrastructure maintenance as well as staff remuneration at all levels. The Ministry of Health through NTLP obtains funding through consolidated government funds, development partners' contributions, external grants, and loans. The US Government and the Global Fund are currently the leading external funding agencies for TB control.

The dwindling funding support from GLRA and other partners has led to resource gaps of TB and leprosy control in the country.

SECTION 4: SUMMARY OF KEY ACHIEVEMENTS

4.1 INTRODUCTION

The NTLP's fifth Strategic Plan covering the period from 2015 to 2020 aimed at reducing the Tuberculosis epidemic and the burden of Leprosy disabilities in Tanzania by 2020. This plan aimed at reducing TB incidence by 20 percent, the number of TB deaths by 35 percent, grade two disabilities among the newly diagnosed leprosy by 45 percent, and the elimination of leprosy in 19 high endemic districts.

The NTLP, in collaboration with various stakeholders, implemented interventions under nine thematic areas. The key thematic areas included the care and prevention that focused on improvement of quality of services and expansion of service provision, including scaling up of diagnostics services with molecular technologies. Other thematic areas focused on specific services delivery such as the Paediatric TB management, MDR-TB, TB in the mining, Collaborative TB/HIV activities, and Leprosy. Additionally, the crosscutting areas of community system strengthening, PSM, programmatic management and Monitoring and Evaluation, and operational research were also part of the strategies.

Generally, the interventions range from the facility-based quality improved TB case detection model, screening and testing of PLHIV, decentralization of MDRTB centres, scaling up of the molecular technology such as GeneXpert, advocacy through mobilization of influential and religious leaders, community active case finding activities, and the private sector engagement. Interventions on leprosy elimination focused on targeted household screening in high endemic districts.

To understand program implementation challenges better and to guide future planning, several surveys and assessments were undertaken. These include MDR-TB drug resistance survey, an evaluation of the economic burden of TB to patients and their families (catastrophic costs) and patient pathway analysis, MATCH analysis, and TB TIME modelling. Other important reviews conducted include TB epidemiological and impact analysis as well as external program review.

The implementation of the NSP adopted NTLP core package[16] and tailored interventions guided by regional epidemiological context and geographical variations. By 2018, the Program had four main regional implementing partners: KNCV-Challenge TB, EGPAF-USAID BORESHA AFYA, DELLOITE/FHI360/MDH -USAID BORESHA AFYA, and AMREF/MDH- through Global Fund Private Principal recipient. In addition to the specific TB grants, the Program also benefited from small scale TB/HIV implementing partners. Table 4.1 summarizes progress made on 5th NSP.

[16]NTLP adopted Core package interventions as guidance to the Implementing Partners. These are facility based and community based essential activities to be implemented in every region

Table 4.1: NOSP V Implementation Performance Dashboard by Dec 2019.

Specific Objective	Baseline 2013	Target 2020	Status 2019
1. To increase case detection by 29 percent by 2020 by strengthening routine case notifications and addressing vulnerable groups such as elderly, prisoners, miners and diabetics.	38%	49%	53%
2. To increase the percentage of childhood TB cases notified in the country from 10.6% to 15 percent by 2020 by integrating TB services into RCH, CTC and active case finding.	10.6%	15%	16%
3. To increase MDR TB cases detected and enrolled for treatment from 17% of the estimated total cases among those notified to 84 percent by 2020 by scaling up new diagnostic technologies and decentralizing MDR TB services	17%	84%	54%
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 (HIV-positive TB patients given ART during TB treatment in %)	73%	100%	99%
5. To establish the magnitude of TB and increase case notification rate within the mining sector by 2020	0		**
6. To reduce new Leprosy cases with grade 2 disability from 7 to 3 per 1,000,000 population by 2020 by enhancing early case finding and treatment of leprosy patients (Percentage of patients with disability grade 2 among newly diagnosed leprosy patients by 2019)	7/1,000,000	3/1,000,000	3/1,000,000
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; 7.1 The percentage of notified TB cases, all forms, contributed by non-NTP providers – community referrals from 14% to 20 percent by 2020 7.2 The percentage of TB cases contributed by non-NTP providers-Private facilities	14% 6%	20% 21%	26% 19%
8. To institute an efficient and integrated M&E system that ensures all indicators listed are tracked and reported timely.	0	All District moved to electronic reporting register	100%
9. To increase collaboration between the program and research/academic institutions on operational research (operational research projects conducted)	0	Collaboration with NIMR	Achieved (2 surveys, 8 Operational research projects

Source:2019 NTLP Program Review Findings. Note: Case detection rate (Treatment coverage) was revised after the PST results in 2015
TBHIV targets were revised to align with the revised Collaborative TBHIV policy guideline M&E Plan in 2018
*** Miners reported with TB: 2018 – 1,020; 2019 – 1,596 notification; -Active screening in mining areas and TB and Lung diseases International Occupational centre: Kibong'oto*

4.2. Programmatic Efforts and Achievements

This section presents historical programmatic interventions that have led to the registered performance of the NOSP V.

4.2.1 TB prevention and care

This thematic area focuses on the increased efforts of finding missing people with TB. Specifically, scaling up the use of new diagnostic technologies, strengthening laboratory network, introducing facility quality improvement (QI) in TB case detection, and scaling-up active case finding activities through community actors and engaging other providers

4.2.1.1 Strengthening of Laboratory performance and networking

During the fifth strategic plan, the focus was to establish a TB network, expand access and availability to diagnostics, capacity building, quality assurance, and information system strengthening. Currently, the TB laboratory diagnostic services are provided through a decentralized network of TB laboratories organized in four main levels. Four additional zonal TB laboratories were established in Mwanza, Dodoma, Pemba, and Kilimanjaro. The zonal labs were capacitated with qualified human resource that received appropriate training on key operations such as culture investigation.

Deliberate efforts were made to improve availability of diagnostics such as procurement of microscopes including of LED type, rehabilitations of the zonal and regional laboratories and expansion of the use of molecular technology, by the GeneXpert machines. Microscopy centres have been expanded from 662 in 2015 to 1,613 in 2019. Tanzania adopted WHO recommendations on using molecular technologies since 2010 and thus during the fifth NOSP, significant investments were made in ensuring the scaling up of the technology. Under the developed GeneXpert rollout plan, the number of GeneXpert sites increased from 61 in 2015 to 210 in 2019 (244% increase). Likewise, the number of GeneXpert machines increased from 65 in 2015 to 239 in 2019. To ensure the availability of diagnostics, integrated sample referral mechanism was introduced in 2018. This is guided by a formal guideline, which has been developed in collaboration with HIV Program and other stakeholders.

Trainings were conducted to build capacity on the use of LED as well as GeneXpert machines. The use of the machines went hand in hand with their maintenance. The Program formed a pool of local super users to assist the regions and councils with daily functioning of the machines and hired a service provider for periodic planned preventive maintenance purposes. LPA for 2nd line DST is being conducted in three zonal laboratories (Mbeya, Kibong'oto, and CTRL)

Quality assurance was at the heart of the TB laboratory network operations during the fifth NOSP. The TB Laboratories Accreditation process started in 2014. In 2018, all the six culture laboratories were continuing with the different stages of Strengthening TB Laboratories Quality Management towards Accreditation (TB SLMTA). The Central Tuberculosis Reference Laboratory (CTRL) was accredited by the Southern African Development Community Accreditation Service (SADCAS) under ISO 15189:2012 Medical laboratories - Requirements for quality and competence in October 2018 with accreditation number MD 30 Published by SADCAS website www.sadcas.org. The accreditation provides evidence that the CTRL meets the international standard requirements in the implementation of quality management system that ensures the delivery of eminent laboratory services for patient care.

The CTRL also coordinate and supervise the routine Microscopy sites in blinding rechecking EQA through a cascade of structured process. The numbers of diagnostic sites, which are quality assured, have gradually increased from 32 percent in 2015 to 85 percent in 2019

Three electronic information systems were introduced during the implementation of this NSPas follows

1. The TBLIS, a web-based Relational Database, was launched at CTRL to manage specimens and associated data effectively, the DHIS-ETL a more comprehensive surveillance system containing patient register and their laboratory information.
2. The ETL, which is a DHIS2 tracker platform available at all zonal laboratories, is used for the management of culture and DST requests as the requests are made by the facilities and thus can be tracked and the results shared timely within the system.
3. GeneXpert information system, which is available in two ways, a local machine database shared **to** CTRL through an email and a real-time electronic system, a G Alert system.

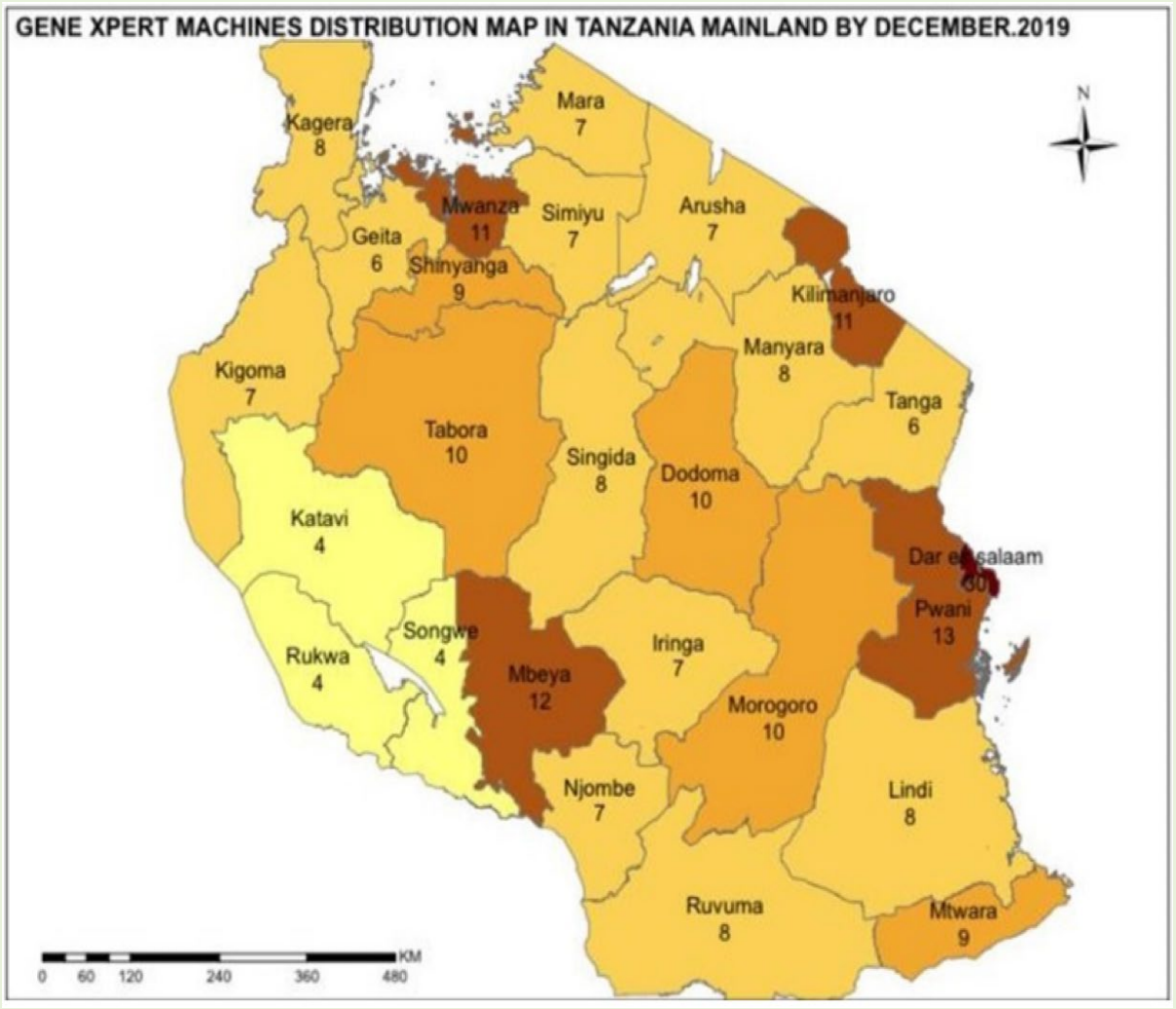


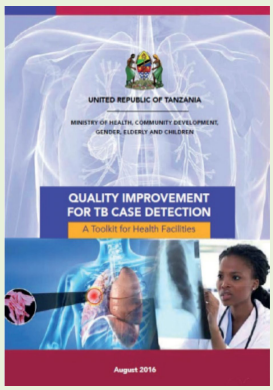
Figure 4.1: GeneXpert distribution map December 2019

The use of GeneXpert machine has been expanded to include monitoring of HIV viral load, and thus, through TB, TBHIV stakeholders, a second National GeneXpert Rollout Plan, and Implementation Guideline were developed and published in October 2019.

4.2.1.2 Quality Improvement model (Approach) to Increase TB Case Detection

One of the significant best practices in the fifth NSP was the introduction of quality improved TB case detection strategy. The model, which has proven to be an impactful approach, has been suggested to be adopted by other countries. Through a comprehensive program that has been scaled up in all regions and councils, quality improvements (QI) have been rolled out nationally in collaboration with development and implementation partners. After 48 months of implementation, the national TB case notification increased by 32 percent from 62,180 in 2015 to 82,166 in 2019.

This strategy was implemented using a three-phased approach; the first phase involved a national assessment in understanding challenges and barriers and the development of an evidence-based QI toolkit and training packages. The second phase was a one-year pilot in two regions (20 sites) with very close follow-up and at the same time being introduced in the other 16 regions from July 2016 to June 2017. The third and final phase included a review of second phase findings, official national launching, and scaling-up of QI interventions to 674 health facilities by October 2018.



Official Launch of the QI in TB Case detection's Presumptive registers and tool kit by the Minister of State in the President's Office for Regional Administrations and Local Government Hon. George Simbachawene, Deputy Minister for Health, Community Development, Gender, Elderly and Children Dr. Hamisi Kigwangwala, and Deputy Permanent Secretary for PORALG-health, Dr. Zainab Chaula, during the annual RMOs and DMOs Meeting in June 2017

Other achievements through this strategy include:

- Incorporation of active TB case findings in the facility, district, regional, and national forums,
- Additional staff at health facility directly working on TB, by assigning a TB focal person,
- Increased TB suspicion index among health workers implementing QI,
- Improved levels of integration within RCH and HIV clinics, and
- Increased notification of childhood TB and DR TB cases.

International QI TB Experience sharing workshop at New Africa Hotel, Dar es Salaam, Tanzania, 27th - 31st May 2019

4.2.1.3 Systematic TB screening among communities, congregate populations, and high-risk groups

TB screening among communities, congregate populations, and within high-risk groups has been among major pillars in the NSP V. The intervention has been through Global Fund-supported initiatives, USAID - Challenge TB- KNCV, USAID Boresha Afya – Deloitte and EGPAF, and LHL through MKUTA. Evidence shows that targeted community-based interventions are feasible, acceptable, and effective, especially in hard-to-reach areas.

In Tanzania, community TB activities are conducted by Community Health Volunteers (CHVs), including Ex-TB patients in their groups. Community Health Volunteers provide information related to TB symptoms to communities, identify, and refer presumptive TB patients to TB care services. CHVs have also been engaged in sputum collection, fixation, and transportation of fixed smear slides and in facilitating the referral of samples to TB diagnostic centres.

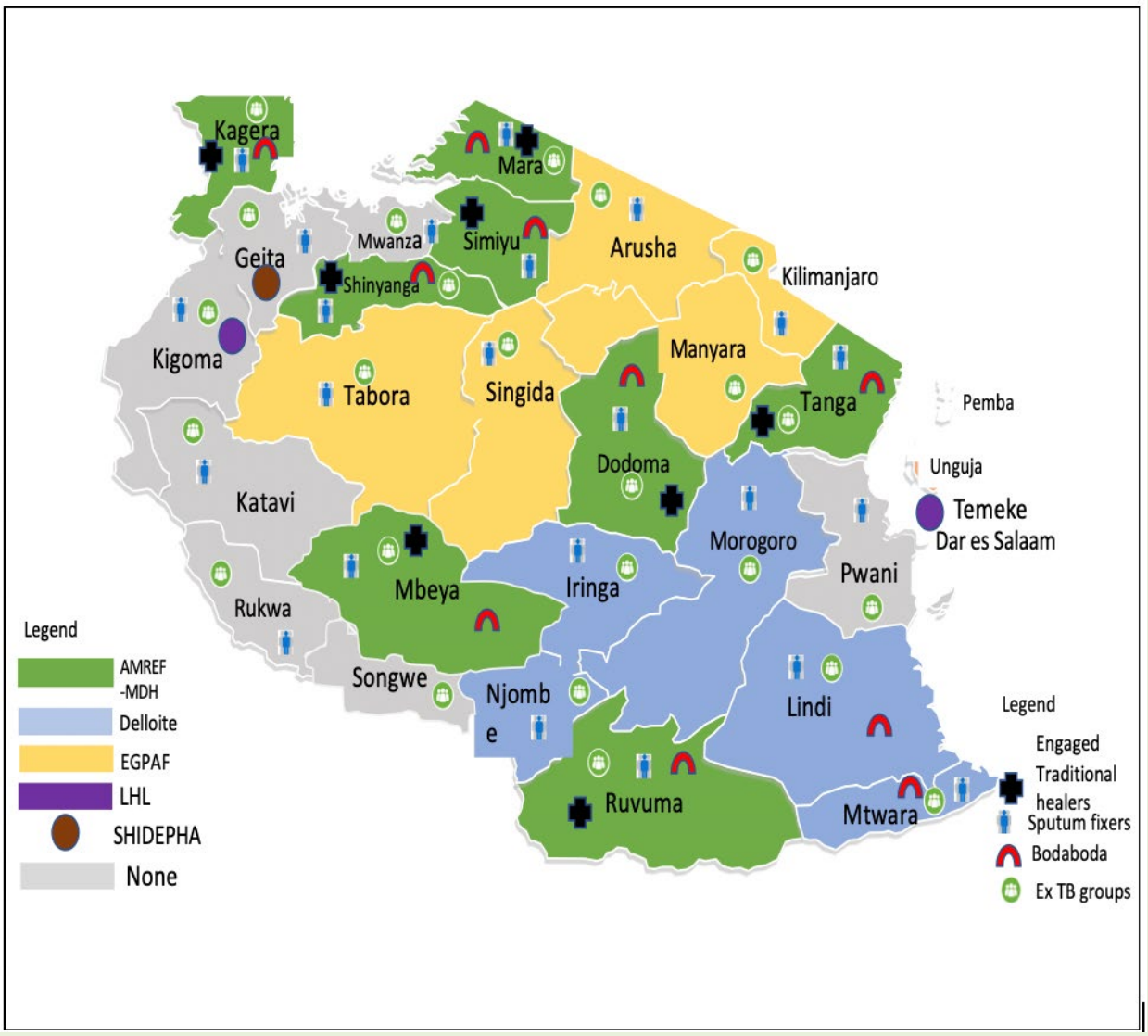


Figure 4.2. Community TB Partners and Implementation Coverage

Source: NTLP Community Intervention Partners database 2019

The following are some of the community TB approaches implemented in the NOSP V;

i. Active case finding: Community Health Volunteers (CHVs), including the ex-TB club's engagement to find TB patients in the community, has proven useful in active case finding. Before the implementation, the CHVs received training on TB screening methods, TB contact tracing and sputum collection, packaging, safe storage, and transportation following national policy and protocols. Through this approach, community contribution in TB case detection has increased from 10 percent in 2016 to 26percent in 2019 (see Figure 4.2). This approach also increased TPT coverage for under-fives that were vulnerable to TB among risk households.

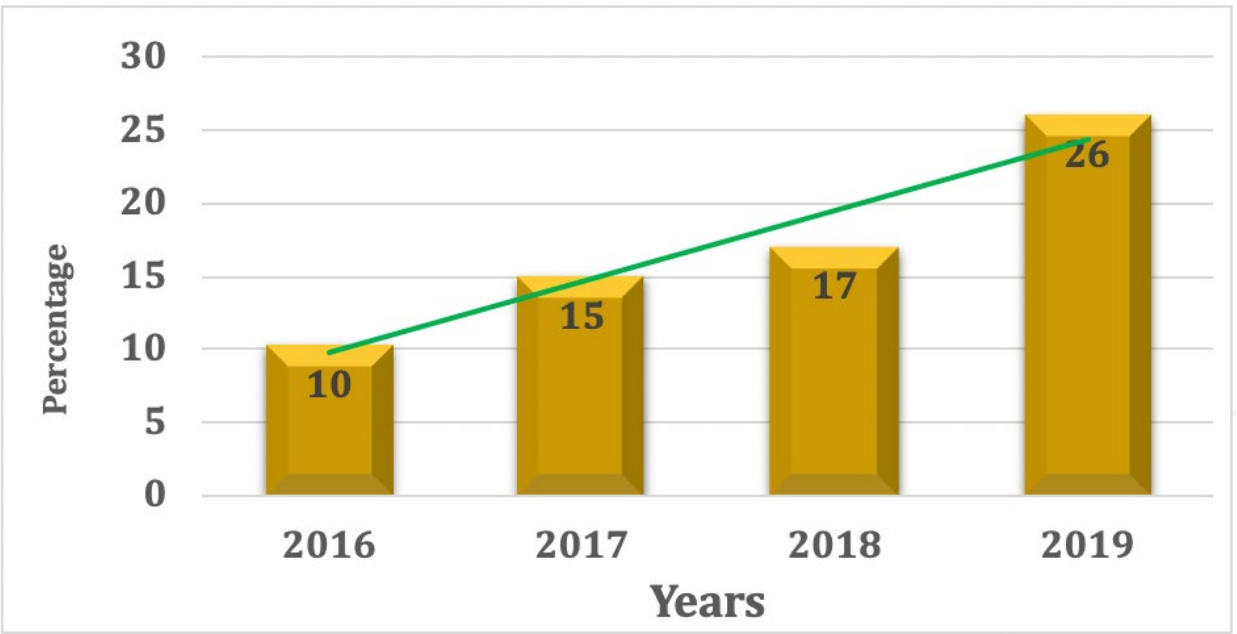


Figure 4.3: Trends of community contribution in TB case notifications from 2016- 2019

Furthermore, through the contact tracing initiative, NTLP realized that traditional healers could be among the risk groups for TB; they can also be a source of TB transmission to their families and clients. This was revealed in October 2018 through the Challenge TB project, whereby a monthly TB screening campaign in Mwanza screened 724 traditional healers, their families, and clients for TB. Among these, 137 were identified as presumptive TB patients, and when tested for TB, 17 (12.4%) were confirmed susceptible TB, and 2 were confirmed DR-TB patients. The results call for special attention, as many clients might be acquiring TB in this group (see Figure 4.3).

ii. Specimen Collection

It is hard to reach areas facing the challenge of accessing TB diagnostic services. Since 2016, the NTLP [17] 375 providers were trained on sputum smearing and fixing techniques to allow safe specimen storage and transportation to diagnostic facilities in 15 regions.

iii.Sample transportation

Transporting sputum samples to diagnostic sites can be difficult due to the lack of reliable transportation systems. The NTLP collaborated with implementing partners[18] and contracted privately owned motorcycles (Boda-bodas) *to transpor*t specimens *safely* from rural health facilities to nearby GeneXpert sites. In some districts, sputum transportation is integrated into spoke and hub schemes for HIV-viral load specimen transportation. Through these initiatives, diagnostic delays have been reduced, making TB diagnosis results available in 48 hours, and therefore notably increasing TB case notifications.

[17]KNCV- Challenge support (Mwanza, Geita, Pwani, Kilimanjaro and Arusha); Save the Children – under Global Fund support (Dodoma, Shinyanga, Singida, Ruvuma, Njombe, Mbeya, Kagera, Rukwa, Katavi, Simiyu, Tabora, Iringa and Kigoma); AMREF/ MDH – under Global Fund Support (in Mara, Dodoma, Mbeya, Ruvuma, Kagera, Simiyu, Shinyanga, and Tanga).

[18]AMREF/MDH supporting Mara, Dodoma, Mbeya, Ruvuma, Kagera, Simiyu, Shinyanga, and Tanga regions

Period: October 2018

TB patients hosted in Traditional healers' premises in Mwanza region, Tanzania

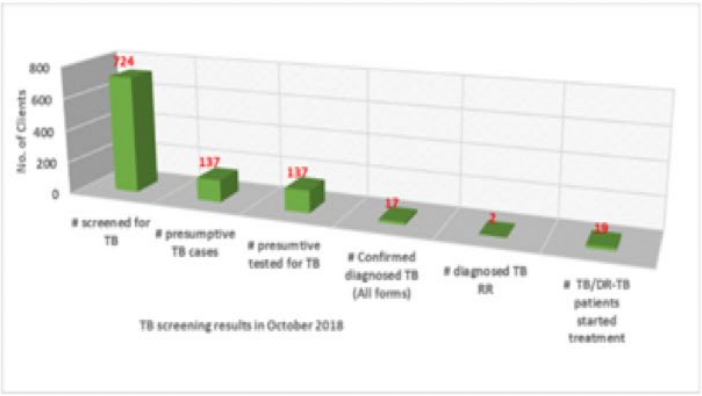
Background and challenges to implementation:

Tanzania is among the 30 high burden countries with TB with the incidence of 269/100,000. (WHO, 2018) and only 44% treatment coverage. Recently, the county has realized several Traditional healers suffering from tuberculosis (TB). A quick assessment on TB disease among clients of Traditional healers was conducted in October 2018 to demonstrate TB situation among Traditional Healers and their clients and to document the effectiveness of this intervention.

Intervention and response: Four districts of Misungwi, Magu, Sengerema and Kwimba in Mwanza were involved. 25 Traditional healers' homes with high volume clients and admission services were visited. Health education on TB signs and symptoms was provided followed by TB screening, collection and transportation of sputum specimen to TB diagnostic centers for GeneXpert or Smear microscopy, referral for chest X-ray, provision of feedback laboratory results, and initiate TB treatment. The screening took four days to reach as many traditional healers' places as possible. Twenty-eight community health volunteers (CHVs) were involved. A standardized TB screening forms, community register and referral forms were used.

Results and lesson learnt: Just one month of implementation, a total of 724 clients were screened for TB and 137 were identified as presumptive TB patients, all were tested for TB. Of those tested, 17 (12.4%) were confirmed susceptible TB and two were confirmed Drug Resistant TB patients, of which, one was a Traditional healer. Of 19 people with TB, 88.2% were confirmed via GeneXpert®, 11.8% via smear microscopy.

Figure 1: TB screening among clients attending at traditional healers in three districts of Mwanza in October 2018



Door to door visitation for TB screening at traditional healers' premises in Mwanza region (Photo: By Suleiman Migeto)

Conclusions and key recommendations: The results call for meaningful engagement of Traditional healers in finding missing people with TB to reach the End TB goal.

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USAID CHALLENGE TB KNCV

4.2.2 Paediatric TB

The program focused on improving the management of childhood TB by integrating TB services into Reproductive and Child Health Clinic (RCHC) services, training in paediatric tuberculosis management, and providing Isoniazid treatment therapy to eligible under-fives. A Paediatric TB technical working group (TWG) has been established to spearhead care and prevention of paediatric.

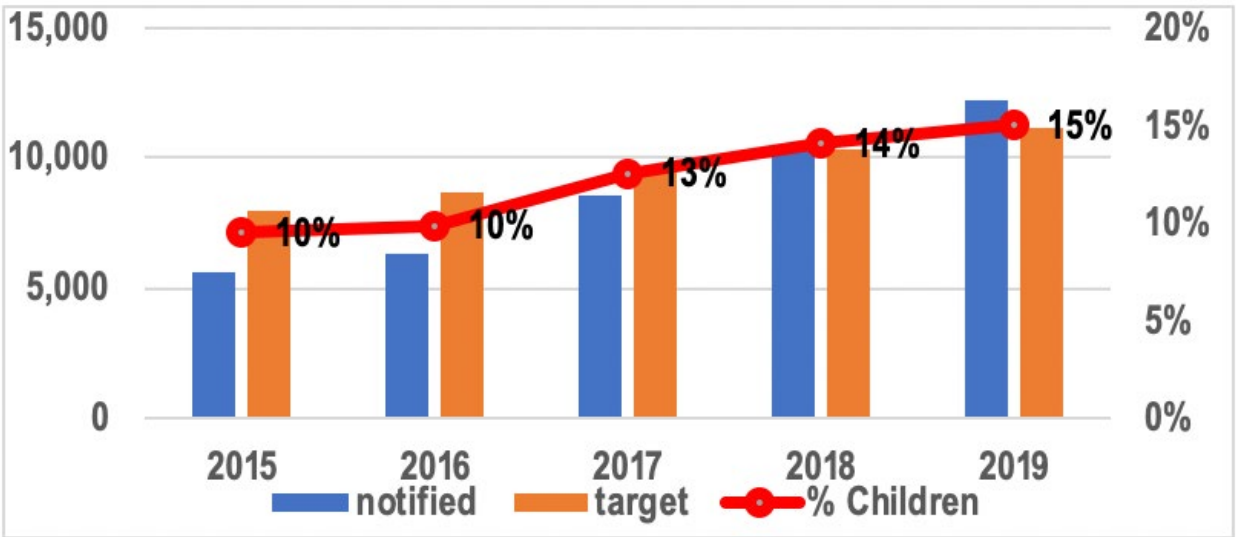


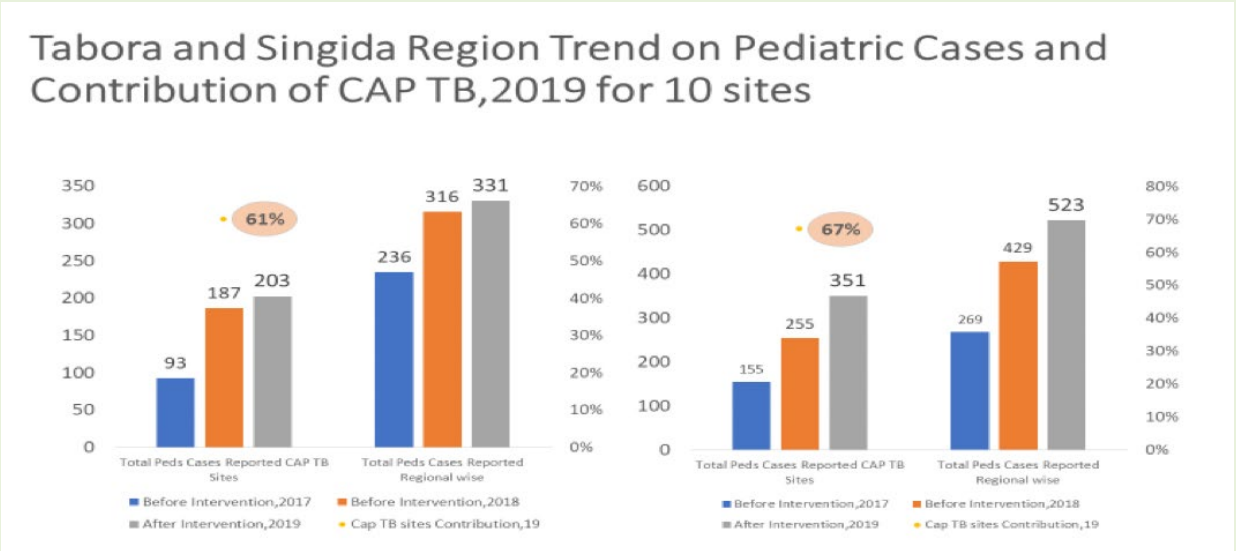
Figure 4.4: Trend of TB Notification 2015-2019

Specific activities included incorporating in the training package the TB algorithm and module in the distance learning of integrated management of childhood illnesses (d-IMCI), piloted in two regions of Tabora and Tanga, training of HCWs from different hospital departments, and quality improved TB in RCHC.

There was significant paediatric support through the establishment of 50 (34 in Dar es Salaam, 12 in Kagera, and 4 Geita) Paediatric centres of excellence (COE) supported by MDH and other implementing partners in regions such as Mtwara, Geita, Tabora, and Kagera. Further, a comprehensive Paediatric TB management module was showcased in 22 sites under the support of EGPAF through Catalyzing Paediatric TB Innovations project (CaP TB). Below is the graphic presentation of the double notifications in the CAP TB sites, which constituted more than 60 percent of the notifications in both regions.

CAPTB

22 pilot sites: introduction of paediatric TB screening in all entry points (RCH, OPD and IPD), supporting advance sample collection though NGA, supporting sample transportation from sample collection to testing facilities and back to respective facilities and supporting contact tracing. Timely TB treatment for paediatric cases with active TB and TPT for clients with Latent TB infections. Capacity building sessions through on site and classroom based trainings as well as mentorship support. The project increased paediatrics notification from 236 in 2017 to 331 in 2019 and from 269 in 2017 to 523 in 2019 in Tabora and Singida regions respectively.



Finding TB missing cases and protecting children through out of School days Children Club

Background and challenges to implementation: Mbagala Kizuiani dispensary is among the four facilities in Temeke TB region. Apart from a registered good trend of increasing TB case notifications in the past two years, low pediatric notifications has been a challenge at the dispensary. Children from the index TB cases homes were missed for screening because of the clinic operation only during the week days. During these days the children have to attend school and the parents attend to their economic activities. A weekend children club was introduced to capture these children and their parents.

Intervention or response: A weekend club called kids communication skills club was introduced from April 2017 without any extra cost for the health care workers and community health volunteers (Former TB patients) who together provided the services. The staff/and FTB introduces a micro economic activity (Kikapu cha Bibi) to support refreshments and another club needs. The club conducted children health talks and screening of TB to those children attending the clinic.

Results and lessons learnt: In 15 months since launching of the club, A total of 55 (90%) club days were conducted. 201 children were invited among the 560 who were missed during the normal facility routine days. A total of 179 (89%) children were successfully received at the clinic after the invitation. Also, a total of 979 under 5 years was screened, out of these, 242 (25%) were presumed to have TB. A total of 33 (14%) cases were confirmed to have TB and were put on treatment while 28 eligible children were given TB prophylaxis (IPT). Generally, the dispensary's pediatric notifications increased from 5 % in 2017 to 26% in 2018.

Figure 4.5: Trend of the proportion of paediatric among notified TB cases

4.2.3 MDR-TB

In order to strengthen the management of MDR-TB in the country, the Program scaled up the use of new TB diagnostic technologies, GeneXpert machines. This was guided by the first Tanzania gene Xpert roll out plan. In addition, a specimen referral and feedback mechanism was introduced to maximise the use of the available geneXpert machines and expand diagnostic access. The tracking system for the detection of DR-TB cases and contacts has been strengthened through the implementation of the GXAlert system to expedite sending back laboratory results and tracking of GeneXpert cartridges and utilization.

One of the major tangible interventions under the MDR-TB management has been a decentralisation of services to 145 sites from the only one in 2015 to foster early initiation of treatment and improved care. About a quarter (23%) of patients in the 2016 cohort and 61 percent of patients enrolled in 2017 received treatment and care in the decentralized facilities. Treatment success has improved from 80 percent in 2016 to 83 percent in 2017. In line with this, KIDH has been maintained as a Centre of Excellence for DR-TB services. Furthermore, the Programme has been fully transitioned to all oral DR-TB regimens since 2019.

MDR-TB patients have benefited from social support as follows,

- Therapeutic foods to the admitted MDR-TB patients at Kibong'oto hospital and all Regions
- Baseline and follow-up Laboratory investigations
- Monthly transport stipends
- Funeral and burial support to MDR-TB patients who die at Kibong'oto hospital

4.2.4 TBHIV

Collaborative TB/HIV activities are being implemented in collaboration with National AIDS Control Program (NACP) and supported by the TB, TB/HIV Implementing Partners. In 2016, the country updated its 2007 national policy guidelines for collaborative TB/HIV activities in line with the WHO recommendations. The first TB/HIV M &E plan was also developed.

The scale-up of the provision of integrated TB/HIV services (under-one-roof services) in Tanzania has gradually been increasing in the regional, district, and FBO hospitals,, including health centres. Currently, there are 1,553 facilities countrywide that offer integrated TB/HIV services under one roof. The services include HIV counselling and testing, TB screening and treatment, ART provision, and TB Preventive Therapy - TPT. This approach ensures comprehensive care to co-infected patients. The country has been performing well in collaborative TB/HIV services, whereby HIV testing in TB clinics has increased from 88 percent in 2014 to 99 percent in 2019, and the proportion of HIV positive TB cases started on ART increased from 83 percent in 2014 to 99percent in 2019. The co-infection rate has decreased from 36percent in 2014 to 24percent in 2019.

Box; Decentralization of MDRTB Services

- More than 600 healthcare workers trained on MDR -TB Management
- 145 Initiating Centers
- ECHO supporting case management and continuous education

4.2.5 TB Intervention in the Mining Sector (TIMS)

The Fifth NSP also aimed at addressing the needs of the mining populations on TB care and prevention services. The objective was to establish the magnitude of the TB burden in this group by conducting mini-surveys and providing care through systematic screening, strengthening diagnostic services, and support for treatment adherence.

In 2015, Tanzania adopted the SADC regional harmonized framework for the management of TB in the mining sector. The framework called upon SADC countries to join efforts in reducing the burden of TB among the mining communities. Through this platform, the Programme implemented TB in the mining sector initiative in six districts, namely Simanjiro, Tarime, Kahama, Msalala, Geita DC, and Siha, which had a large number of artisan mineworkers. TIMS interventions included Sensitization campaigns and systematic TB screening activities, Coordination mechanism through a multi-sectoral technical working group, Support TB diagnostic services in the mining areas, including outreach services and advocacy, health promotion in the mining areas, and cross border TB initiatives. In addition, the centre of excellence for TB and lung occupational diseases was established at Kibong'oto Hospital in Siha -Kilimanjaro. This well-equipped centre, serves the mining communities from Mirerani in Simanjiro District and the rest of the northern zone in the management of TB and other chronic lung diseases. By the end of 2019, the centre had attended 3,000 clients detecting and initiating treatment to 300 TB cases and 500 lung diseases such as silicosis, pneumoconiosis, and similar cases.

In 2018, the Program, in collaboration with KNCV, introduced digital adherence technology (DAT) applications for key mining populations in Geita region, the intervention aimed at improving favourable TB treatment outcomes among the mineworkers.

The Program has established a technical working group for TB in the mining, which oversees the implementation of TIMS strategic interventions in the targeted mining areas. The TWG comprises members from different institutions affiliated with the mining sector. Furthermore, in this NSP, the program has upgraded its surveillance system in 2018 to incorporate mining occupants among key reported indicators into DHIS2 – ETL. In 2018 and 2019, 1,004 and 1,566 TB cases were notified and recorded.

4.2.6 Leprosy

Since 2006, the country has maintained the elimination threshold of leprosy. Over the last four years, there has being a gradual decrease in the notification of leprosy cases from 2,062 in 2014 to 1,677 in 2019.

During the Fifth NSP, there have been activities aimed at reducing grade 2 disability among new Leprosy cases by enhancing early case finding and treatment of leprosy patients in order to accelerate leprosy elimination, especially in the few remaining high endemic areas.

The number of relapses in Tanzania is consistently getting lower. For example, in 2018, the number decreased by about 50percent compared to the proportions in 2017. Countrywide, leprosy medicines

are available free in all health facilities, which have notified patients.
The prevention of disability also forms a major part of the leprosy interventions in previous NSP. Over 10,000 pairs of protective footwear, special boots, and 65 artificial legs were made available to people affected by leprosy (PALs). For the first time, the Programme introduced post-exposure prophylaxis (PEP) using single-dose rifampicin (SDR) whereby, 6,000 eligible people were reached. The key challenge has been the inadequacy of resources for leprosy elimination efforts. These resources include finances and skilled staff for the detection of the disease.

4.3.7 Supportive Systems

4.3.7.1 Community System Strengthening

The capability of finding missing persons with TB depends on a strong network with community actors (NGOs and other CSOs, KAPs). Thus, the previous NSP continued to implement interventions specifically aimed at strengthening the capacity of Ex-TB patient groups countrywide under the umbrella organization (MKUTA) and engaged other CBOs/ NGOs as well.

There are about 400 Ex-TB groups countrywide engaged in various TB and TBHIV community interventions. Over the last four years, community contribution has significantly increased from 10 percent in 2016 to 26percent in 2019 of all the notified TB cases in the country.

In 2017 and 2018, Tanzania Community TB Network (TTCN) and TB Community TWG were established, respectively. Their main roles were to support the improvement of the health and wellbeing of communities through coordination, capacity building, and promotion of innovative leadership among members to contribute effectively to the ending of TB in Tanzania. The TWG was formed to oversee and spearhead all technical aspects of interventions and implementation.

4.3.7.2 Advocacy and Communication

Community sensitization and advocacy using appropriate communication approaches play an important role in creating awareness and in changing social behaviour towards the utilization of TB and leprosy services. The fifth NSP implemented activities described in the subsections below.

4.3.7.2.1 Engagement of Parliamentarians and National level religious leaders

Sensitization of policymakers and government leaders into participating in the fight against TB has been one of the key approaches in the mission of finding the missing TB patients. The Tanzania Parliamentary TB Caucus was established in 2016, re-launched in 2018 (comprising 46 members) endorsed the 2014 Barcelona declaration of rallying the requisite local political support of tackling TB. In support of such efforts, the Tanzania Parliament has succeeded in relocating TB matters to the prevailing permanent Parliamentary HIV and Drug Abuse Standing Committee. The co-existence will display and enhance the visibility of TB/HIV matters.

The Programme has successfully engaged top national religious leaders in the fight against TB, and the declaration was signed by the religious leaders in November 2019.

4.3.7.2.2 Using M-Health Applications to Promote TB Awareness and Prevention

In the efforts of o finding the missing TB patients innovatively, the previous NSP championed the use of technology, especially digitization. The Program took the opportunity of the 78percent of Tanzanians who have access to mobile technology and thus developed a mHealth mobile application to allow self-screening and promote adherence to treatment. The application “Tambua TB,” uses the MoH’s mHealth platform to send messages about TB and self-screening through basic mobile phones. Furthermore, Tambua TB promotes treatment adherence through sending regular short messages (sms) about their treatment schedules and adherence matters. From the official launch in September 2018 to April 2019, 229,898 individuals have screened themselves using the application, and 166,758 were self-reported as presumptive. In addition, by December 2018, 4,047 patients were enrolled in the treatment adherence TB messaging service. The App has been very useful during the COVID 19 outbreak when people’s movements were restricted; it became the only means for initial screening by the community.

4.3.7.3 Public and Private Mix

4.3.7.3.1: Engaging private health facilities

Engaging all relevant health care providers in TB care and control through the public-private mix (PPM) approaches is an essential component of Tanzania's health policy as well as WHO's End TB Strategy. PPM for TB care and control represents a comprehensive approach for a systematic involvement of all relevant health care providers in TB control. In this regard, the country has engaged formal and informal health providers, including faith-based hospitals, private for-profit health facilities, quasi-governmental health facilities, traditional healers, congregate settings, and Accredited Drug Dispensing Outlets (ADDO).

A series of interventions to improve TB diagnosis in private health facilities were implemented. These include training of the targeted 400 health care providers from private health facilities in ten regions with a high number of private health facilities and providing diagnostic equipment such as procuring of GeneXpert machines to 5 high-volume private hospitals in Dar es Salaam. Overall, the contribution of the private sector in TB notification has increased from 5.6percent in 2014 to 19percent in 2019.

4.3.7.3.2 ADDO to screen and refer TB presumptive cases

Accredited Drug Dispensing Outlets (ADDOs) are privately operated retail outlets certified by the Pharmacy Council of Tanzania to sell a limited list of essential medicines, including selected prescription medicines in rural and semi-urban areas of the country. Until August 2019, there were over 25,578 trained and 14,036 accredited outlets[19] . The Programme, in collaboration with implementing partners[20], has used the ADDO platform to identify clients with TB symptoms and refer them to TB diagnostic centres for investigation and treatment. By 2019, 800 ADDOs in 20 regions were engaged in this intervention.

4.3.7.4 Health System Strengthening PSM

In the effort of ensuring the availability of TB and leprosy commodities at all levels, the Program implemented various interventions aimed at improving procurement, distribution modalities, and preventing stock-outs. The Program conducted periodic forecasting, updated quantification assumptions for the commodities, and developed a comprehensive national supply plan.

The Program developed an Optimized TB Logistic System whereby districts are reporting and ordering first-line TB medicines using an electronic reporting tool (eLMIS for TB). Electronic reporting enabled data visibility at district and higher levels. Facility Monthly Report Forms (FMRF) were developed to enable facilities reports which detail the number of enrolled cases and stock on hand so that the actual facility demand can be established. The medicines are issued from districts as per facility monthly needs. The optimized TB Logistic system is integrated into the national distribution system hence reduces delivery lead-time to the facilities.

During the period of NSP V implementation, the Program introduced the use of child-friendly TB paediatric formulation, which enhanced adherence. Following the use of these regimens, it was possible to cover children with bodyweight up to 25 kg, therefore, prevent the crushing or breaking of adult FDC formulations.

The country adopted the use of new WHO-approved DR-TB medicines, including Bedaquiline and Delamanid based regimes. It is highly recommended for close monitoring of the safety of these new medicines by reporting Adverse Drug Reactions. The program, in collaboration with TMDA, introduced the active reporting of new MDR TB medicines using Active Drug Safety Monitoring and management (aDSM). Similarly, the country adopted the new WHO-approved MDT medicines for leprosy, replacing PB-MDT by MB-MDT.

[19]https://www.pc.go.tz/addo/

[20]CSSC Semi-Annual Report Jan-Jun 2018. http://cssc.or.tz/wp-content/uploads/2018/10/CSSC-Jan-Jun-2018-Report-final-draft.pdf

4.3.7.5: Programme Management

The Government continues to support the programme by organizing quality health care delivery systems, infrastructures, human resources, and ancillary medicines. The costed fifth Strategic Plan was used to mobilize resources.

An estimated total USD 84,485,864.91 was mobilized and received directly to the programme from GFATM, CDC/PEPFAR, and WHO. The Program was also able to raise fund, which was received indirectly through the following implementing partners:

i KNCV_Challenge TB: 2015-2019: National and 6 Regions support including Zanzibar,
ii EGPAF: USAID BORESHA AFYA: 2017- 2021 National and 5 Regions,
iii Delloite/FHI360: USAID BORESHA AFYA: 2017-2021,
iv MDH/Amref: GF Private PR: national and Community interventions in 8 Regions
v GLRA:2015-2020: National and Leprosy endemic Councils, and
vi Other sources: CCHPs (Basket funding).

The Program explored and implemented innovative ways for resource mobilization, such as the initiation of a STOP TB Partnership in 2019. The Partnership is expected to spearhead domestic resource mobilization for TB response in the country.

To strengthen coordination, quarterly coordination forums have been introduced, and the NTLP annual meeting has been revamped. Successfully, the annual meetings managed to gather key stakeholders and decision-makers for performance review and planning. Thematic TWGs have been established and played a key role in continuous guidance in the implementation of innovative interventions of the NSP V.

Human resource availability and capacity building continued to be a priority focus to ensure quality implementation of the NSP. During the past four years, the Program managed to have 75percent of the required workforce, provided a suitable working environment, appropriate equipment, and capacitated the officers with knowledge and skills on program management. GF Strategic Initiative TAs were received for various areas such as data use training, advanced analysis using GIS tool (MATCH Analysis), assessment, and introduction of quality improved TB case detection and modelling through TIME Impact.

4.3.7.6: Removing barriers

Tuberculosis and leprosy thrive in conditions of structural inequity, where the complexities of poverty, social inequity, disempowerment, rights violations, conflict, and patriarchy render communities susceptible to TB and marginalize access to diagnosis, treatment, and care. A human-rights-based response contributes to overcoming barriers to accessing TB education, prevention, diagnosis, treatment, and care and support services.

In responding to these determinants, three Community Rights and Gender (CRG) qualitative assessments were done: The Legal Environment Assessments for TB, The Gender Assessment Tool for National HIV and TB Responses, and Data for Action framework for TB Key Vulnerable and Underserved Populations. This was done through technical support from Eastern Africa National Networks of AIDS & Health Service Organizations (EANNASO) under STOP TB Partnership. The objective of the assessments was to develop recommendations for improving the TB response in the country, whereby a TB CRG Costed Operational Plan was developed[21]. The plan also includes the recommendations from the Tanzania TB Community Network (TTCN).

On the other hand, NTLP conducted its first TB patients cost survey in 2019 to evaluate the cost incurred by the patients before being diagnosed with TB and during the treatment period. The survey results showed that 45percent of TB patients run into catastrophic costs due to TB. These baseline survey results will assist the Programme in developing a multisectoral TB and leprosy social protection plan, which will guide the Programme toward the interventions for reducing the social-economic barriers to TB and leprosy services.

[21]CSSC Semi-Annual Report Jan-Jun 2018. http://cssc.or.tz/wp-content/uploads/2018/10/CSSC-Jan-Jun-2018-Report-final-draft.pdf

4.3.8. Monitoring and Evaluation

During the implementation of NSP V, the major focus for the M&E was to improve the surveillance system in order to strengthen the measurement of the true burden of the diseases. The M&E tools adopted the WHO 2013 case definition. The tools are available for facility and community-based recording and reporting. The electronic case-based system (DHIS2-ETL) has been developed on the web-based DHIS2 platform and the nation-wide rollout began in January 2018. The system comprises separate modules for surveillance TB and Leprosy. The ETL captures laboratory, HIV test results, and ART uptake data. Furthermore, the case-based system provides disaggregated data by sex, age groups, occupation, and KVPs.

The system has also improved the Laboratory referral system for the Drug Sensitivity testing by allowing requesting and feedback through the system. The inbuilt epidemiological Dashboards, which were customized from the WHO, provide user-friendly readymade analysis for use. A data use guideline, which incorporates the use of the dashboards, has been piloted in three districts under TA from Epidemiology Unit of Muhimbili Health University's Public Health School.

Data quality has improved with the use of the DHIS2-ETL as such quarterly reports are available within two weeks after the end of the quarter. In-built data quality validation has improved completeness and consistency of data. DQA guide has been developed and started to be used at the national level. To monitor the Programme, epidemiological and impact analyses were done in 2017 and 2020. In addition, a standalone paediatrics epidemiological analysis for the year 2017 and 2018 was done in 2019. Furthermore, Implementing Partners were coordinated through coordinative and performance review meetings, annual planning sessions, and annual NTLP meetings.

4.3.9 Operational Research

The first TB and leprosy operational research agenda for the Programme was developed and implemented during the fifth NSP. Furthermore, the Program established a TB operational research coordinative committee, which meets annually with the mandate of coordination of TB-related researches in the country.

Two major surveys have been conducted: The DRS and the catastrophic patient cost surveys. During this period, the leprosy post-exposure prophylaxis (LPEP) study was finalized with a good outcome, which resulted in the implementation of a follow-up study, PEP4LEP to establish the best model of implementation of the post-exposure prophylaxis. In addition, the Programme collaborated with Muhimbili University of Health and Allied Sciences (MUHAS) for the Masters in Public Health students to conduct their thesis on TB agenda subjects. Four researches were successfully completed through this Programme in collaboration with the KNCV-Challenge TB project.

4.4 SWOT ANALYSIS

This strategic plan is building on the strengths and opportunities to design interventions that will reduce weaknesses.

Table 4.2. SWOT Analysis

Strength	Weaknesses
• NTLP has a clear mission and vision and a costed strategic plan, • Good collaboration with partners supporting TB, TB/HIV, and Leprosy control services, • Established TB diagnostic network • Established Integrated specimen transportation system, • A well-established nationwide TB and Leprosy case-based surveillance (DHIS2-ETL) • A well-established logistics management (eLMIS) system, • Qualified and committed staff at all levels of the health system, • Integration of some of TB and Leprosy control efforts into regional and council health plans and in the essential health services delivery package, • Integration of TB and Leprosy into primary health care (PHC) services delivery system.	• Fewer TB treatment centers (DoT), • Fewer TB diagnostic facilities, • There is no functional Interoperability between DHIS2-ETL and other MoHCDGEC surveillance systems and databases (e.g., the Laboratory Information System (LIS), • Dependence on external funding, • Scarce resources to implement budgeted interventions (big funding gap),
Opportunities	**Threats**
• The NTLP is well established within the MoHCDGEC. • Supportive national policies, strategies, and guidelines such as HSSP IV, the inclusion of TB specific indicators into Result Based Financing (RBF) and Star rating initiative (SRAT), Presence of the eGovernance and eHealth strategies, • Regional Administration and Local Government (PO-RALG) leadership that oversees the Integration and implementation of TB and Leprosy activities at the sub-national level, • The Government's continued commitment and political will to provide infrastructure and human resources, • Integration of TB agenda into the Parliamentary Standing Committee for HIV and Narcotics, • Presence of development partners interested in providing financial resources and technical assistance to the NTLP,	• Shortage of human resources and thus competing for priorities for coordinators and HCWs at regional and council levels compromising the delivery of TB and Leprosy services, • Limited capacity to absorb partners supported HRH, • Incidences of outbreaks and extreme weather conditions • Poor structures to foster Implementing partners transparency and accountability to the NTLP • Poor involvement of other sectors, • Uneven distribution of Implementing partners across the country.
• Presence of private sectors such as mining industries, private health providers, Civil Society Organization and NGO's/Implementing Partners interested in providing financial resources and technical assistance to the NTLP. • The Direct Health Facility Financing programme at the PHC levels, • Presence of national and improved	

SECTION 5: VISION, MISSION AND PRINCIPLES

5.1 GUIDANCE OF THE STRATEGIC PLAN

The sixth Tuberculosis and Leprosy Operational Strategic plan translate the National health priorities to the TB and Leprosy control. It aligns with the Health policy vision, *"to have a healthy community that contributes effectively to an individual as well as to the nation's development towards becoming a middle-income country.*[22]*"* Interventions proposed in this strategic plan are guided by 4th Health Sector Strategic Plan Midterm review recommendations and the draft 5th HSSP V.

NOSP VI is contributing to the achievement of the National development plan, END TB strategy, and thus the Sustainable Development Goals (3.3) targets. As the second plan in the END TB era, this SP has taken into consideration the critical actions needed to fast track the achievement of unmet milestones while keeping track of achieving the 2025 milestones. It translates the End TB strategy's Pillars and key actions as well as the Global plan to end TB's core investments to the Tanzanian perspective. It provides the context for developing annual operational plans and budget for the TB and Leprosy prevention care and control included in the Medium-Term expenditure Framework (MTEF) of the Ministry of Health, Community Development, Gender, Elderly and Children and the President's Office Regional Administration and Local Government, Regional health plans.

5.2 VISION, MISSION and GOALS

Vision

Tanzania free of Tuberculosis and Leprosy - zero deaths, disease and suffering due to tuberculosis and leprosy.

Mission

Provision of high-quality TB and Leprosy interventions with a focus on universal access, equity, gender, and those most at risk through effective and sustainable collaboration with partners and stakeholders at all levels.

Goal

To reduce burden and suffering from Tuberculosis and Leprosy diseases in Tanzania by 2025.

Indicators

i. 50percent reduction in tuberculosis incidence rate (compared to 2015)
ii. 75 percent reduction in the number of tuberculosis deaths (compared to 2015)
iii. 50 percent reduction of TB affected families facing Catastrophic costs due to TB
iv. 0 children (under fifteen years of age) newly diagnosed with Leprosy presenting with Grade 2 Disabilities at diagnosis.

5.3 CORE VALUES AND GUIDING PRINCIPLES

The NTLP has built a strong institutional capacity that has demonstrated the desire and premise to lead, coordinate, and influence effective, innovative, and efficient interventions. The Programme believes in participatory, ethical, and transparent programming. It strives to be a role model in effective and efficient programming and be accountable to the Tanzanians well-being in reducing TB and Leprosy deaths and suffering. These NTLP core values are built from the following guiding principles that have enabled the country to maintain a robust and resilient National TB and Leprosy Programme.

[22]Draft National Health Policy 2017

1. Stewardship and leadership

In Tanzania, the MoH, through NTLP, has demonstrated stewardship and leadership in facilitating transformative programmatic actions that have an impact on service delivery in terms of scope and modalities. Focusing on the bottom-up approach, the NTLP has pioneered the initiation of models such as the DOT services, sub-national programme implementation structure, efficient service delivery models such as intensified case finding through Quality Improvement, and patient-centered community care.

In its core role, NTLP will continue to provide normative guidance, policy advice, monitoring and evaluation, and mobilization of resources for TB and Leprosy programme. At the same time, PORALG will ensure the implementation of the envisioned interventions of controlling and elimination these diseases are in line with the policies and guidelines.

In implementing the next SP, the Government will lead a multisectoral response for TB and Leprosy, and continue to elevate the two to higher levels of the country's development agenda. The purpose is to coordinate action on multiple fronts and provide oversight to achieve universal access for early detection and proper treatment of all patients with Tuberculosis and Leprosy.

2. Accountability

The Government of Tanzania has been committed to the national and global goals of ending TB and eliminating Leprosy. In doing so, NTLP ensures the delivery of quality health care services, sharing of lessons within and outside the country, and fostering collaboration and networking in the care delivery.

The strategy uses the existing structures to ensure appropriate policy decisions are made using global and local evidence. NTLP, Tanzania's front line for the control of the two diseases, will make sure decisions on new technologies and new drug regimens are made through the generated local evidence. The Program will strive to ensure no Tanzanian is left without access to TB and leprosy services and quality drugs. Participatory planning and implementation, a major NTLP's core value, will foster programme accountability to the Government, funding partners, and the communities served.

3.Partnership and Collaboration

The NTLP works closely with both technical partners such as WHO and development partners such as the Global Fund to deliver the intended results. In implementing activities, the NTLP engages the Ministry responsible for the implementation, the PO RALG, communities, including people affected with TB and Leprosy, to facilitate, support, and provide services. Tanzania has learned that community-led implementation is a fundamental pillar in finding the missing people with TB.

In Implementing the SP VI, the NTLP commits to continue to work closely with local and international civil society organizations, private health providers, for-profit organizations, regional bodies, and development partners. The Program will work closely with the non-state actors such as Stop TB Partnership, Leprosy Coordinating Committees and Tanzania Network of people affected with TB to ensure that informed interventions are implemented.

The SP VI has taken into consideration the Global guidance, in particular, the End TB strategy, and UNHLM declaration. Effective tackling of TB to achieve the ambitious targets set by these strategies requires close collaboration among the affected. thus, the Program will continue to strengthen its collaboration with regional entities such as the East African Community and the Southern Africa Development Countries.

4.Equity

Tanzania strives to provide TB and Leprosy care without financial burden to the affected people. The country is addressing Universal Health Coverage, ensuring that TB patients access quality health services without suffering through initiatives such as a free TB and Leprosy services policy, expansion of diagnostic sites and establishment of sample referral mechanisms, and decentralization of MDR-TB services.

As part of the universal coverage and of addressing equity, the NOSP VI interventions will continue to focus on removing barriers to the access of diagnosis and care services. The National programme commits to continue working towards minimizing or eliminating direct medical costs, such as fees for consultations, diagnosis, hospitalization, monitoring tests and medicines, as well as direct non-medical costs for transport and any loss of income while under care. The country will also explore appropriate social protection schemes that will cover or compensate for non-medical costs and income losses.

5. Human rights, ethics, and gender

Removal of human rights, gender, and related barriers is a key to the country's goal of reaching all, especially the key and vulnerable groups. This strategic plan addresses human rights building from a rights-based approach that ensures the protection of human rights and the promotion of rights-enhancing policies and interventions. The Program will continue to work at a high level of professionalism, observing medical ethics and delivering patient-centered care.

The strategy recommends interventions that are gender-responsive, including the appropriate capturing of age and sex-disaggregated data. In particular, the NOSP has emphasized in addressing the stigma attached to the disease and to the discrimination against those affected, ensuring patient-centred service provision, and balancing the risk of infection to health care workers.

6.Evidence-based and innovative solutions

In implementing NOSP VI, the country will prioritize interventions based on local context, needs, and capacities. These interventions are based on TB and Leprosy disease epidemiology mapping of people at a higher risk, understanding of socioeconomic contexts of vulnerable populations, geographical variations, and grasping of health system context, including underserved areas in each council. The implementation of this plan will consider different levels of regional performance.

NTLP has been at the forefront of adopting, testing, and building new evidence and innovations in TB programming. The Programme regularly receives, contextualizes, and adopts WHO recommendations. Historically, Tanzania has made a breakthrough in innovating the community DOT Programme, which has facilitated the delivery of patient-centered quality care for TB services. Of recent, the Program successfully developed a DHIS2 tracker module system for an efficient and effective TB and Leprosy surveillance system, initiated a quality improved in TB case detection model, a mHealth self-screening application (Tambua TB), and digital treatment adherence (99Dot). The Ministry will continue to lead, support, and guide innovation and operation research to develop and apply new technologies, tools, and approaches to end TB and eliminate leprosy.

At all levels, the NTLP embraces a result-oriented culture of promoting regular performance reviews. This spirit has enabled the Programme to achieve and even surpass most of its targets by the end of NOSP V. NTLP has also demonstrated excellent performance in implementing the awarded grants. For example, a good GF performance in 2018 led to the receipt of additional fund through grant optimization. During the implementation of NOSP VI, the Ministry will continue to enhance the performance-based monitoring and review mechanisms at all levels.

7. Sustainability

The NTLP has continued to invest in value for money interventions that deliver much for less and maintain the quality of the service. The NOSP VI will continue to empower sub-national levels and communities to play a vital role in the prevention of TB and Leprosy diseases in their environment. The bottom-up and participatory planning approach will empower these implementers and be able to continue making informed decisions on resource allocation in their regions, councils, and facilities. The strategy has also taken a principle of engaging the affected persons and communities in the implementation of the plan with particular attention to Key Affected Populations. It prioritizes interventions that support the transition from donor support to local ownership and hence foster sustainability financially and programmatic-wise.

The Programme has also explored avenues of working with for-profit partners, such as the Mining sector, investing in TB as part of Corporate Social Responsibility (CRS). These opportunities will further be enhanced through the Stop TB Partnership to enhance domestic financing.

6. SPECIFIC OBJECTIVES AND STRATEGIC INTERVENTIONS

This NSP will contribute towards achieving the Health sector strategic plan V. The plan is geared towards the total elimination of leprosy, improvement of TB case notification and detection, maintenance of high cure rates, and identification and management of drug resistance TB and extreme resistance TB cases and TB/HIV co-infection to contribute to the global goal of ending TB by 2035. Tanzania is currently on track to achieving two of the 2020 milestones, namely, the reduction of the incidence rates and the number of deaths.

The sixth National Strategic Plan for Tuberculosis and Leprosy (2020-2025) has invested in informed and impactful interventions with ambitious targets. The interventions are organized in nine thematic areas, which are formulated as objectives as follows:

1:To increase TB treatment coverage from 53% in 2018 to 90% by innovatively addressing barriers to access, utilization, and the needs of the key and vulnerable populations for TB care and prevention services,
2. To expand access of quality TB diagnostic services, including the adoption of new technologies by 2025,
3. To maintain proportion of children TB among the notified cases at 15% and increasing the ratio of ages '0-4':5-14 years from 1.3 in 2019 to 1.5 by 2025,
4. To increase RR/MDR-TB cases detected and enrolled for treatment from 54% to 90% of the estimated TB cases among the notified by 2025,
5. To Strengthen the management of co-morbidities including Collaborative TB/HIV, TB/Diabetes,
6. To strengthen TB services to the population of miners and their families by 2025,
7. To reduce leprosy prevalence in all endemic councils by 2025,
8. To ensure availability of supportive systems and strengthened Program management for the implementation of TB and Leprosy Services by 2025, and
9. To ensure implementation of evidence-based interventions and decision making through institutionalized efficient M&E system and coordination of researches by 2025.

These thematic areas correspond to national health priorities' implementation framework as well as key priority actions of the three End TB strategy pillars (Table 6.1). They are informed by the country TB and Leprosy epidemiological context, lessons learned, recommendations from the Program review, and consultative discussions with key stakeholders. Through a People-Centred Framework (PCF), MATCH analysis, Patient Pathway Analysis, and Cost-Effective Analysis through TIME Impact modelling, the interventions have been carefully selected and prioritized.

The country plans to increase treatment coverage from 53percent baseline in 2018 to 90percent and eliminate leprosy in all endemic councils by 2025. Thus, case detection strategies will be employed innovatively specifically to reach the key, vulnerable, and most at-risk Populations. The implementation will be guided by the TB and leprosy geographical context informed by the available analyses. Further, this current strategic plan will implement measures to address the underlying social-economic determinants and barriers to TB and Leprosy services as well as maintain the initiated efforts during the previous fifth strategic plan. To address these matters, a multisectoral approach will be adopted, and community linkage strengthened.

Table 6.1: NSP VI Thematic Areas in relation to End TB Strategy

End TB Pillar	NSP VI Thematic Area
Integrated, patient-centred care and prevention	• TB Case finding • TB Diagnostics Network • Childhood and Adolescent TB • Programmatic Management of Drug-Resistant TB • Collaborative TB/HIV activities, management of Co-morbidities, and TB prevention • TB in Mining and other KVPs
Bold policies and supportive systems	• Supportive Systems including; ○ Community Systems Strengthening for TB and Leprosy ○ TB and Leprosy Social determinants and Barriers ○ ACSM for TB and Leprosy ○ PPM for TB and Leprosy ○ Health Product Management system: For TB and Leprosy ○ NTLP Program management ○ TB and Leprosy Monitoring, evaluation, and learning
Intensified research and Innovation	• TB and Leprosy Monitoring, evaluation, and learning

6.1 TB CASE FINDING

Objective 1: *To increase TB treatment coverage from 53percent in 2018 to 90 percent by innovatively addressing barriers to access, utilization, and the needs of the key and vulnerable populations for TB care and prevention services.*

Early diagnosis of all people with TB has been a priority of the Country and for the Programme. The Efforts made have led to dramatic improvement such that the TB coverage has increased by 43percent from 37percent in 2015 to 53percent in 2018. There are still the existing gaps between the estimated and the diagnosed cases, which possess a threat to the attainment of the global target of ending TB by 2035. To close this gap, all the missing people with TB have to be reached.

This NSP adopts the "Find and Treat All" movement to ensure all people with TB are reached and put on treatment. This objective aims at implementing innovative approaches to case finding at health care setup as well as in the community. The objective focuses on different modalities for different groups of people in relation to the existing service delivery structures, care-seeking behaviours, and the already known barriers to access and utilization of TB services. All TB diagnosed people will be put under treatment with quality drugs, better formulations, and improved

regimes. The patient-centred approach will continue to be followed to ensure the best outcomes.

The country, through TB and leprosy Programme made notable advances in increasing the TB case notification rate from 128 in 2015 to 145 per 100,000 populations in 2019 and maintaining >90 percent treatment success rate. The improvement was a result of case-finding strategies at health facilities, communities, and TB targeted groups. The strategies proved to be impactful. Thus, this Strategic Plan will focus on scaling up the approaches and on modification as per the lessons learned. The aim is to tap the missed opportunities to ensure that everyone is reached and close the existing gap. The Programme will strive to introduce new innovative approaches to increase the pace of diagnosing and treating all the missing people with TB.

Thus, the interventions in this objective have been carefully designed to address the barriers along the cascade of care to make sure that factors that provide opportunities for missing patients are being addressed. This will enhance the patient-centred delivery of service approach; that is, the service is to be positioned based on where the patients are found. In line with this, the interventions have considered the existing structures and have strived to embed the TB interventions within to ensure efficiency. The case-finding approaches consist of systematic screening at health facilities and systematic outreach screening especially targeting high-risk groups.

The approaches will take advantage of the improved health sector infrastructure in the past four years[23] in order to reach more people with TB who were being missed. Further, the findings from the Patient Pathway Analysis conducted in 2018 will be used to design an innovative approach to capture patients in the cascade of care.

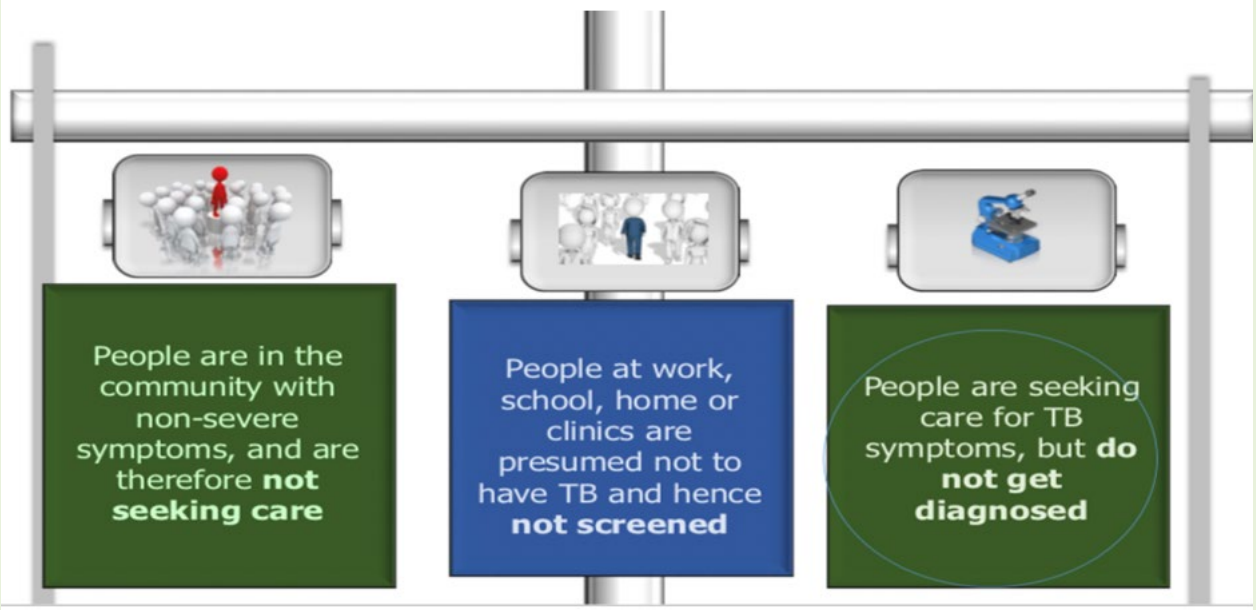


Figure 6.1: Where are we missing the TB patients

[23]The 2019 analytical review of the Health Sector Strategic Plan IV revealed significant improvements in infrastructure development covering an average of 2.1 facilities per 10,000 people.

6.1.1 Quality Improvement model

The implementation of QI activities has shown significant improvements in TB case detection, although this model targeted a few councils. In addition, the main gap in implementing this model has been the lack of formalized reporting of the presumptive TB cases and the fact that the registers are currently paper-based. In addition, the current screening tools used in health facilities and communities need to be revised to ensure that they are sensitive enough to capture symptomatic and atypical TB cases. Other gaps included staff turnover and reshuffling of trained health care workers and limited trained mentors to cover the councils. Further, linkages between QI efforts at some health facilities and community-led TB efforts were not well established. Both the achievements and challenges of the QI implementation process have served to illuminate some of the lessons learned, and which will be used to improve TB case detection in this NSP. The efforts will be sustained and scaled up nationally to have the results on a larger scale. Activities will focus on introducing the model to the newly constructed facilities which become functional, scaling up to the lower levels facilities, Intensifying continuous mentorship and supportive supervision, improving quality management tools and systems, and strengthening linkages to other interventions— especially community-based activities. The tool kit will be reviewed to align with improved and updated new technologies as well as incorporating the rights and gender-responsive TB services.

6.1.2 Community-based case finding and treatment support

Household and close contacts of TB patients are at high risk of contracting TB. Contact investigation activities are not consistent across the health facilities and communities. This Strategic Plan will prioritize intensifying contact investigation approaches by targeting contacts of bacteriologically confirmed DS and MDR-TB. The approach will link the facility with community interventions using the existing guidelines, strategies, and resources.

Other priority activities include strengthening outreach services and other community-based active case finding targeting high-risk groups. The emphasis has been on ways of reaching the hard-to-reach areas, such as the use of special mobile clinic vans and boats. The capacity building to the community actors - Community Health Workers (CHWs) will continue with the emphasis on exploring and addressing the barriers to TB services. The guidelines and Job aids will be reviewed to align with the newly adopted technologies as well as rights-based and gender-responsive service delivery.

Tanzania TB Vulnerable Populations

PLHIV Miners Refugees Prisoners, People who used drugs including PWIDS, People living in informal settings, People with Diabetes, Children, Elderly, Community and Health Care Workers and Fisherfolks.

6.1.3 Key and Vulnerable Populations

Key and vulnerable TB populations are people who are vulnerable, underserved, or at increased risk of TB infection and illness. These key populations vary across countries. The following are the main groups of the KVPs:

Tanzania TB Vulnerable Populations
PLHIV Miners Refugees Prisoners, People who used drugs including PWIDS, People living in informal settings, People with Diabetes, Children, Elderly, Community and Health Care Workers and Fisherfolks.

i. People with increased exposure to TB due to where they live or work
ii. People with limited access to quality TB services
iii. People at greater risk due to biological or behavioral factors that compromise immune functions

Based on the recommended key population prioritization[24], the NTLP considers Key and Vulnerable groups susceptible to TB in Tanzania to include PLHIV, Miners, Refugees, Prisoners, People who used drugs including PWIDS, slum dwellers, people with Diabetes, Children, the Elderly, Health Care Workers (HCWs) and fisherfolks. Even though the current size estimation of these groups is unknown, the plan is to reach 90percent of them in line with the national and global plans to end TB targets. Thus, among the priority actions will be to determine the estimated burden of TB in the mentioned vulnerable populations.

Table 6.2: Key and Vulnerable Populations for TB[25]

People who have **increased exposure** to TB due to **where they live or work**	People who: • live in urban slums • live in poorly ventilated or dusty conditions • are in contact with TB patients, especially children • work in overcrowded environments • work in hospitals or health care settings *Prisoners, miners, hospital visitors, health care workers, and community health workers*
People who have **limited access to quality TB services**	People who: • are from tribal populations or indigenous groups • are homeless • live in hard-to-reach areas • live in homes for the elderly • have mental or physical disabilities • face legal barriers to access care *Migrant workers, women in settings with gender disparity, children, migrants, refugees or internally displaced people, and illegal miners*
People at **Increased Risk of TB** because of **biological or behavioral factors** that **compromise immune function**	People who: • live with HIV • have diabetes or silicosis • undergo immunosuppressive therapy • are undernourished • use tobacco • suffer from alcohol-use disorder • inject drugs

This objective envisages to intensify TB case-finding in the following vulnerable groups: Prisoners and people in other congregate settings, healthcare workers, the elderly, and people living in informal settlements. TB case-finding to PLHIV, Diabetic patients, Children, and miners will be implemented under other specific objectives. Other key priority activities include scaling-up and close monitoring of the already introduced quality improved TB services in prisons, capacity building to HCWs on the management of KVPs, and development of targeted screening models and tools for the elderly and health care workers.

[24]Stop TB Partnership. Data for Action for TB KVP and Underserved Populations, September 2017
[25] http://www.stoptb.org/assets/documents/global/plan/GlobalPlanToEndTB_TheParadigmShift_20162020_ StopTBPartnership.pdf

6.1.3.1 Prisoners and people in other congregate settings

Studies around the world have reported a substantially higher prevalence of TB among prisoners than among thegeneral population. Factors contributing to high TB prevalence in prisons include a high turnover of detainees, overcrowding, inadequate ventilation, poor nutrition, and illegal drug use. There are 127 prisons in the country, with over 35,800 prisoners and detainees as of December 2019[26] . The TB services in Tanzanian prisons have a long history in line with TBHIV interventions. In collaboration with the Ministry of Home Affairs through its Prisons services' Health Authority, the previous NSP had intentionally focused on ensuring quality-improved services, including the initiation of TB screening for the newly enrolled prisoners. Hence, the sixth NSP under the first objective will strive to scale up this initiative and to have continuous monitoring and evaluation for continued better programming.

6.1.3.2 Elderly

Older age groups are at high risk of acquiring new TB[27] infections or reactivating latent TB due to their lowered immunity. Other factors such as malnutrition, low socioeconomic status, previous diseases, and co-morbidities increase the risk of TB and complicate its management in this group. TB in the elderly often presents with non-specific clinical symptoms in the presence of other co-morbid conditions and atypical radiological presentations. There is also a higher risk of more than four-fold increased mortality risk during the intensive phase of treatment compared with TB patients aged18–59[28]years. A high index of suspicion could minimize delays in diagnosis and treatment.

The 2011–2012 TB survey showed a high prevalence of TB in persons over 55 years. Gradually, we now witness an increase in the case of notifications among this age group as the Programme started to pay special attention to the gap thus;, there is a need to sustain the gains and introducing other innovative approaches to reach 90percent of them. The Programme will assess the situation to identify barriers to access TB services among this group and build capacity to HCWs and CHWs on diagnosis and management. Furthermore, deliberate efforts will be made to advocate and increase community knowledge for TB prevention and care.

6.1.3.3 Other KVPs

The objective will also focus on interventions for People who use drugs (PWUD), fisherfolks and people living in slums. PWUD are at increased risk of tuberculosis compared to those not using drugs; this risk is higher with HIV infection[29]. A case-finding survey among attendees of a methadone clinic in Dar es Salaam found that 4percent of the surveyed clients had active TB, which was 23-fold higher than the national rate. The sixth NSP will scale up the integrated TB services in the Methadone Assisted Clinics in the country. This is in line with the Ministry scale-up plans of these clinics in other regions. Consultative meetings will be conducted with all relevant authorities to ensure quality care, which is right-based and gender-responsive. The use of peer groups will be emphasized to maximize the effects of reaching all people with TB infection, provide support during treatment, improve adherence, and thus improve treatment outcomes. These interventions will also be implemented under objective five. Targeted outreach services will be conducted innovatively to reach more people with a high risk of TB.

[26]Ministry of Home Affairs website

[27]Byng-Maddick R, Noursadeghi M. Does tuberculosis threaten our ageing populations? BMC Infect Dis 2016; 16: 119.

[28]Nagu T et al. Tuberculosis among the elderly in Tanzania: disease presentation and initial response to treatment. Int J Tuberc Lung Dis. 2017 Dec 1;21(12):1251-1257. doi: 10.5588/ijtld.17.0161

[29]Joshi R, Reingold AL, Menzies D, Pai M (2006) Tuberculosis among Health-Care Workers in Low- and Middle-Income Countries: A Systematic Review. PLoS Med 3(12): e494.https://doi.org/10.1371/journal.pmed.0030494

6.1.4 Treatment of DS and DR-TB patients

The treatment modalities will ensure that all diagnosed patients will receive the treatment regardless of age, gender, type of disease, bacteriological status, comorbidities, or legal status. Under the current policy, the TB drugs will continue to be provided to the patients without payment and procured and distributed by the Government through its responsible authorities. Direct Observed Therapy, either facility or home-based, will continue to be implemented under the patient-centred approach to ensure the best outcomes. The role of the community supporters will be strengthened through capacity building. Innovative adherence supportive digital tools, especially for special groups in need, will be scaled up, guided by the evidence provided by the available data. The Program's mHealth tool that provides education to reduce lost to follow up will be utilized and explored further to include other treatment support components.

The efforts of adopting better new regimens have been prioritized and are implemented under operational researches. This will establish in-country feasibility and acceptability findings and other contextual factors.

Strategic Interventions

1.1 Scale-up health facility-based active case finding using Quality Improvement (QI-TB) model for TB case detection.
1.2 Engage formal CHCs and community TB actors to deliver community-based TB care including active case finding and contact investigation
1.3 Strengthen TB services in prisons and other congregate settings
1.4 Improve access to TB services among Elderly people
1.5 Reach other people with a high risk of TB (infection or disease), including key and vulnerable populations and those living in poor and rural settings, hard to reach areas (PWUD, fisherfolks, and slums.)

Objective 1 Targets

1. Reach 90percent of all people with TB and place them on treatment
2. Reach at lest 90percent of KVPs (Prisoners, PWUD, PLHIV, Pediatric, and Miners)
3. Achieve at least 90percent Treatment Success for all people diagnosed with TB

6.2 TB DIAGNOSTIC SERVICES

Objective 2: *To expand access of quality TB diagnostic services, including adoption of new technologies by 2025.*

To ensure access to early and accurate diagnosis of tuberculosis, expansion of health facilities laboratories in a TB diagnostic network is a prerequisite. Thus, this objective has been set with the intention to give this intervention appropriate focus. This will cover both laboratory and radiology services under the supervisory of the NTLP Diagnostic coordinator, who will be a linkage between the Programme and the Diagnostic Unit of the Ministry. The functioning of the network will be guided by the TB laboratory Strategic Operational plan, which is part of this NSP. Through these strategies, the NTLP will ensure that all the needed enabling environment and factors for well-functioning, TB diagnostics are available.

6.2.1 LABORATORY SERVICES

This intervention aims at not only closing the TB incidence -notification gap by intensifying the efforts of improving TB diagnosis but also by ensuring that the proportion of bacteriologically confirmed TB cases is improved through the expansion of TB diagnostic facilities with easy access to new molecular tests. Key priorities include making sure that all public and private hospitals, Military hospitals, health centres, and all high-volume dispensaries become TB diagnostic sites. Under the Country's revised GeneXpert roll out plan of 2018, the objective ensures that every council has at least one GeneXpert machine, and those geographically hard to reach have at least two machines.

A gold standard for TB diagnosis remains to be visualization of AFB under the microscope. Furthermore, microscopy investigation is used for follow-up purposes. The Program will ensure the availability of functional microscopes, especially the more sensitive LED microscope, to all diagnostic sites and scaling up to new sites according to the plan. To address geographical inequalities and ensure the standard utilization of the GeneXpert machines, sample transportation mechanisms will be strengthened. The integrated sample referral system, namely, spoke, and hub system, will be implemented and periodically evaluated to ensure quality and smooth running. Additionally, community-based support for sample transportation through various locally available means will be enhanced to complement the hub and spoke system in areas where accessibility will be a limitation to this system.

Ensuring that all TB diagnostic centers are providing high-quality and timely services, equipment maintenance is a priority of this objective. Capacity building to HCWs will be emphasized, and mentorships will be strengthened. Measures will be put for the maintenance of the adopted technologies, and the availability of laboratory commodities and reagents will be enhanced through the electronic management information system.

The new technologies will be adopted guided by the feasibility and acceptability studies to ensure alignment with the national guidelines and priorities. During this NSP, the use LF-LAM, digital Xpert Ultra cartridges, and more easily accessible molecular technologies such as TrueNat will be explored and adopted. Line Probe Assay (LPA) for second-line DST will be strengthened and scaled up to all Zonal TB laboratories.

Quality assured means and activities will be implemented at all levels. In addition, the accreditation processes will be continued for the CTRL and initiated for the zonal TB laboratories. This NSP will intentionally make efforts to build in-country capacity for Proficient Testing and genome sequencing.

At the heart of quality management is the availability of data for continued monitoring and evaluation. Hence, the Programme will strengthen the existing information systems, namely, TBLis, DHIS2-ETL, GeneXpert machines data reporting (GxAlert) and the EQA reporting. Further, the improvement of the system will ensure interoperability and linkages with the national (Ministry) databases.

6.2.2 RADIOLOGY SERVICES

It has been suggested that one of the main reasons for TB incidences' failure to decrease significantly is the lack of simple, effective, and inexpensive ways of detecting new TB cases at an early stage. While the only improved way of diagnosing TB is a test such as GeneXpert, these tests are expensive, and x-ray can be used as a triage. The World Health Organization (WHO) has recommended digital chest X-rays for systematic TB screening, which can show abnormalities in

the lungs suggesting that a patient is likely to have TB. Although X-rays require local expertise for an accurate reading, they have low operational costs and generate quick results. In addition, there is current computer-aided detection software, which can be used where local expertise for reading is scarce.

Currently, in Tanzania, there are 391 X-Rays as per the MTR of the HSSP IV -2019 and a cost associated with a chest X-ray examination, which poses a barrier to service access by clients who are unable to pay (affordability). Hence, interventions to ensure scaling up of the technology available and measures of ensuring that TB presumptive and patients receive the service at lower costs or free of charge are important. The program will achieve these services by using different modalities. The emphasis is on TB screening by the X-ray for children and PLHV. Further, in line with the improvement of the TB diagnostic algorithm, the X-ray role will be re-assessed and agreed change adopted.

Strategic interventions

2.1 Enhance access to TB diagnostic services,
2.2 Strengthen the supply chain management for TB laboratory commodities at all levels,
2.3 Strengthen quality assurance (QA) across TB diagnostic network,
2.4 Expand the coverage and utilization of phenotypic and genotypic Drug Susceptible Testing, and
2.5 Expand the coverage and access to X-ray services, including digital X-ray.

Objective 2 Targets

1. Seventy percent (70%) of new and relapse TB patients tested using WHO recommended rapid tests at the time of diagnosis
2. Ninety percent (90%) of notified new and relapse TB cases with bacteriological confirmation
3. Nenty percent (90%) of laboratories showing adequate performance in external quality assurance for smear microscopy and GeneXpert among the total number of laboratories that participate in EAQ during the reporting period

6.3 CHILDREN AND ADOLESCENT TB

Objective 3: *To maintain proportion of children TB among the notified cases at 15percent and increasing the ratio of ages '0-4':5-14 years from 1.3 in 2019 to 1.5 by 2025.*

TB disease in children is of significance because it marks a recent infection. Tanzania is among top 20 countries with the most children aged 0-14 years who become sick with TB (The Union 2016). For the past five years, the proportion of childhood TB cases in all TB notifications has increased from 9.5percnrt in 2015 to 16percent in 2019. However, the ratio of TB cases aged 0-4:5-14 years is at 1.3, lower than the WHO recommended ratios of at 1.5 – 3.1. Under-diagnosis and under-reporting in some regions have been reported as major issues in the lower age group of 0-4 years. Further, the adolescents who make 1 in 6 of the world's population have not been given appropriate focus in TB control. However, this group of 10 – 19 years is both at risk of TB and represents an important population for TB control since they have multiple contacts in congregate settings such as schools and other educational institutions.

The coverage of Bacille Calmette-Guerin vaccine among newborns has repeatedly been over 95percent in the past 5 years in the country. In contrast, the coverage of the TB Preventive

Therapy among under-five children who are contacts for bacteriologically confirmed TB patient is below 50percent, and systematically investigation of children-contacts of MDR-TB patients is not regularly done.

The existence of electronic case-based TB information that allows disaggregation by age is one of the important successes in the previous Plan. However, adolescents' data were not regularly analyzed to understand implementation gaps that will guide operation researches and cross-learning success stories from different geographical regions. Further, few of the implementing partners and private actors in restricted geographical areas are implementing TB preventive and control interventions for children and adolescents. Outside the health sector, engagement of the education sector and children social welfare departments (for the orphanage and street children) has not been enough.

In Tanzania, a third of health facilities have integrated children screening and linkages of TB and TB/HIV services into maternal and newborn child health care services. However, TB screening is not systematically incorporated in the clinical algorithm in child health services in the reproductive child health clinics and malnutrition wards. Even though the QI initiative for TB case finding, children screening is implemented in all the entry points in the majority of health facilities, non-specificity of symptoms of TB in children lowers suspicious index of clinicians and hence lowers case findings of children. Limited uptake of gastric aspiration due to inadequate capacity of HCWs, interrupted supply of equipment such as nasogastric tubes, and inadequate access to point-of-care TB diagnosis has led to a low number of children detected.

Prevention and control of Tuberculosis in children and adolescents need to have a wide perspective with the engagement of all key stakeholders and to have supportive systems in place. In the next five years, the country has put priorities of ensuring that quality TB preventive and control services are available, accessible, and utilized by all children and adolescents by engaging all key stakeholders. The objective is to sustain, intensify, and expand interventions that have contributed to an increase in TB notification among children and adolescents. All children TB case management models, which proved to be fruitful, will be scaled up, these include but not limited to d-IMCI, COEs, TB Paediatric clubs in Mbagala (Kizuiani), and the QI in TB case detection approach.

Other key priority activities will be to increase care providers' skills and confidence to manage children and adolescent TB through training, mentorship, and engagement of paediatricians at referral hospitals, and the adoption of new diagnostic technologies and new drug formulations guided by in country feasibility and acceptability findings. The service delivery system will be strengthened through the implementation of TB adolescent-friendly services by integrating the existing platforms and engagement of community and non-health sectors. The Programme will generate local evidence on morbidity, mortality, and the enabling factors for the TB diagnostic and treatment of children and adolescents. Efforts will be made to establish the burden of TB in paediatric and adolescents in the country to guide the response.

Objective 3 Targets

1. Ration of TB cases aged '0 - 4': '5 - 14 increased to 1.5
2. Seventy five percent (75%) of hospitals perform sputum indication and gastric aspiration.
3. Seventy five percent (75%) of under-five children contacts of bacteriologically confirmed TB patients are started with TB Preventive Therapy.

Strategic Interventions

3.1 Establish burden of TB disease among children and adolescents in different regions and districts,

3.2 Strengthen the engagement of all care providers in the health facilities and communities in identification and linkage of all children and adolescents to comprehensive TB services,

3.3 Build capacity of healthcare workers to diagnose and manage childhood tuberculosis, and

3.4 Integrate TB services to the child and adolescent health services in the facilities and communities.

6.4 PROGRAMATIC MANAGEMENT OF DRUG RESISTANT TB

Objective 4: *To increase RR/MDR-TB cases detected and enrolled for treatment from 54 percent to 90 percent of the estimated TB cases among the notified by 2025.*

Tanzania is still a low MDR-TB burden with a prevalence of 0.97 percent among new cases and 4.6percent among retreatment TB cases (2018 Drug Resistance Survey). With scale up molecular technology, Tanzania has witnessed an increase of the detection of drug resistance TB cases from 173 to 534 in five years. This has gone hand in hand with the decentralization of the services such that they are available in all the regions. However, the detected cases are only 54percent of the estimated TB cases among the notified. Further performance in drug susceptibility testing (DST) among TB cases is still low.

This objective focuses on finding and treating all MDR-TB patients using new and effective diagnostics and putting them to quality treatment regimes, while diagnostic interventions are being addressed in the second objective. Through the objective, capacity building will be prioritized, especially with the introduction of new regimens. The use of these new drugs requires a close follow-up, timely identification, and management of adverse events. Thus, Interventions on active data safety monitoring (aDSM) for new TB medicines will be strengthened in collaboration with TMDA.

In the efforts of strengthening decentralized sites, the Programme proposed the establishment of zonal, regional, and district MDR-TB centres in the decentralization framework. The zonal MDR TB centres will admit patients who meet admission criteria, provide laboratory infrastructure for MDR-TB diagnosis (culture/DST, LPA), treatment monitoring (TB culture) and treatment toxicity monitoring (tests for renal, liver, thyroid, ECG, and other tests). Currently, ten centres have received support for the refurbishment; out of these, 4 are zonal centres (Mwanza, DSM, Dodoma, and Kilimanjaro) are at different stages of development; that is, they are not fully functional. The programme has planned to support these sites to become fully functional and establish additional 2 new zonal MDR TB centres in Mbeya and Mtwara.

Kibong'oto Hospital will continue to assume the role of the Centre of excellence for the MDR-TB services in the country. The hospital will receive support for the TA and other capacity-building activities to reinforce programmatic management of drug-resistant TB in the country. The assessment of health facility's capacity to provide MDR-TB services and mentorship on case management at facilities will be conducted by experts from the Centre of excellence in collaboration with Programme and Implementing Partners in all the regions. This will enable the decentralized sites to provide quality PMDT services to patients. Further, the use of digital/electronic technologies (m-Health, telemedicine, ECHO, e-learning, and digital adherence technologies) will be emphasized during the implementation of most of the activities in this intervention. In addition, education materials, including revised guidelines, will be digitized

(audiovisual clips), and the programme will utilize its e-learning platform as a quick guide for the existing and newly employed coordinators and HCWs. The programme will continue to conduct targeted supportive supervision and enhance zonal cohort reviews to the regions providing MDR TB care.

To increase DST coverage for all confirmed TB cases, this intervention focuses on increasing access to DST as per the testing algorithm using conventional and molecular techniques. These include the adoption of new technologies in the diagnosis of TB, mapping, and strengthening of TB data flow and patients results, building capacity for the TB laboratories staff, and ensuring even distribution and access of TB diagnostic molecular technologies.

Second line TB medicines will be procured through GDF mechanisms to ensure availability and timely distribution to facilities providing MDR -TB care. Likewise, the Programme will support supplies and IPC gears procurement, including N95 respirators for healthcare workers and surgical masks for MDR-TB patients. Socio economical support will be provided through the support of nutrition, transport stipend, and cover the costs for baseline and follow up investigations, which are not available to facilities treating MDR TB patients.

Strategic Interventions

4.1 Strengthen MDR-TB case management,
4.2 Scale up and Strengthening of MDR-TB Decentralized sites,
4.3 Strengthen system to support MDR-TB services, and
4.4 Strengthen systematic surveillance of drug resistance TB.

Objective 4 Targets

1. Ninety percent (90%) of the estimated drug resistant RR-TB and/or MDR-TB among notified TB cases detected.
2. Ninety percent (90%) of RR TB and/or MDR-TB successfully treated.

6.5 MANAGEMENT OF CO-MORBIDITIES INCLUDING COLLABORATIVE TB/HIV SERVICES

Objective 5: *To strengthen the management of co-morbidities, including Collaborative TB/HIV and TB/Diabetes services*

6.5.1 Collaborative TB/HIV activities

Collaborative TB/HIV services are implemented by the two programs (NTLP and NACP) as guided by the Collaborative TB/HIV policy guidelines (second version, 2016). The policy generally ensures that TB patients have access to HIV interventions, and HIV clients have access to TB services. To sustain the gains from the previous period, this objective will address major existing gaps such as a high number of PLHIV deaths due to TB as well as a high death rate in this group compared to the death rate of HIV negatives. The co-infection rate has consistently dropped in the past four years, decreasing from 36 percent in 2015 to 24 percent in 2019.

Prioritized interventions are the ones focusing on TB screening for PLHIV, including contact tracing and adoption of new diagnostic technologies as detailed in the second objective. Coordinative platforms will still form a major part of the management of the collaborative activities. The policy guideline will be reviewed to include TB/HIV new development to enhance efficiency.

6.5.2 Collaborative TB/diabetic activities

There is growing evidence in Tanzania that diabetes mellitus (DM) is becoming a significant risk

factor for developing TB. Although comprehensive national data on the burden of TB-DM comorbidity is unknown in Tanzania, one study found that TB prevalence among diabetes patients was at 1.3[30]percent and others at 9.7[31]percent. Furthermore, co-morbidities such as diabetes can complicate TB diagnosis, treatment, and prevention. The Program initiated interventions for Collaborative TB/DM in the previous NSP by developing the National guideline for TB/DM collaborative care. Moreover, the Tanzanian Non-Communicable Diseases (NCD) strategic plan II (2016– 2020) endeavours to implement TB/DM interventions.

A study to assess the availability and readiness of diabetes facilities to manage TB in Tanzania found that only 38 percent of DM facilities were able to manage TB[32]. Thus, there is an urgent need to mobilize resources to enhance the integration of TB services in DM clinics. A priority will be to equip DM clinics and health care workers with adequate knowledge and tools to screen and diagnose TB among people with diabetes. Likewise, screening TB patients and presumed cases for DM will be a priority. It is also suggested that for efficiency, the collaborative activities should be addressed in a comprehensive manner, and hence, there is a need for integrated collaborative TB /co-morbidities policy guidelines.

6.5.3 Management of latent TB infection

According to WHO estimates, over 25percent of people are infected with TB; thus, they remain a source of active TB. Treatment of TB infection will continue to be provided to all PLHIV and under-fives years children who are contacts of bacteriologically confirmed index patients. As Systematic testing and treatment of Latent TB Infection at-risk populations is a critical component to the elimination of TB disease by 2035, efforts will be made to reach other high-risk groups such as miners and prisoners, including exploring the feasibility of using more sensitive screening laboratory tests. The SP will pioneer the take up of the newly introduced TPT drugs and regimes under the guidance of the in-country feasibility and acceptability studies.

Other key priority actions include support of contact tracing, capacity building to HCWs and CHWs/CHVs, and introduction of innovative digital schemes of monitoring of the TPT and improve adherence. The Program's mHealth -Tambua TB platform will be explored to support patients receiving TPT during the treatment.

6.5.3.1 Infection Control

A key component of preventive TB activities is the practice of infection control measures at both the facility and community set-ups. A higher risk of acquiring TB disease is associated with particular work locations (inpatient TB facility, laboratory, internal medicine, and emergency facilities) and occupational categories (radiology technicians, patient attendants, nurses, ward attendants, paramedics, and clinical officers).

Since 2018, the NTLP M&E system was updated to capture disaggregating data on patients' type of occupation, including HCWs. In 2018 and 2019, 391 and 491 HCWs were recorded to have TB diseases, respectively. This signifies the need to address infection control in the health care set-ups. Key priority activities will thus include revising the guideline in line with the existing Infection control efforts as well as emerging infectious pandemics such as COVID19. In addition, the integration of TB indicators into the Ministry's star rating assessment tool for the monitoring will be prioritized. Other priority actions include capacity building of the health care workers and supervision to ensure proper implementation.

[30]Mtwangambate G, Kalluvya SE, Kidenya BR, Kabangila R, Downs JA, Smart LR, et al. 'Cough-triggered' tuberculosis screening among adults with diabetes in Tanzania. Diabet Med. 2014;31:600–605. doi: 10.1111/dme.12348

[31]Munseri, P.J., Kimambo, H. & Pallangyo, K. Diabetes mellitus among patients attending TB clinics in Dar es Salaam: a descriptive cross-sectional study. BMC Infect Dis 19, 915 (2019). https://doi.org/10.1186/s12879-019-4539-5

[32]Shayo, F.K., Shayo, S.C. Availability and readiness of diabetes health facilities to manage tuberculosis in Tanzania: a path towards integrating tuberculosis-diabetes services in a high burden setting?. BMC Public Health 19, 1104 (2019). https://doi.org/10.1186/s12889-019-7441-6

Strategic Interventions

5.1 Strengthen collaborative TB/HIV services,
5.2 Scale-up collaborative TB /DM activities,
5.3 Strengthen prevention of LTBI among at-risk groups, and
5.4 TB and Tobacco Smoking cessation.

Objective 5 Targets

1. A hundred percent (100%) of registered new and relapse TB patients have documented HIV status
2. A hundred percent (100%) of HIV-positive new and relapse TB patients are on ART during TB treatment
3. A hundred percent (100%) of public and private hospitals implement collaborative TB/ Diabetes activities

6.5.4 TB and Tobacco Smoking cessation

Globally, the prevalence of smoking in people suffering is almost three times higher compared to non-smokers; the pulled odd- ratio is 2.6 for active smokers and 3.4 for passive smokers. Active smoking increases the severity of TB presentation, also there are two times the chances to relapse TB to active smokers compared to non-smokers[33].

The association between tobacco smoking and TB in Tanzania has not been studied. However, the Tanzania adult Global tobacco survey showed that overall 6.8percent (2.0 million adults) of currently used tobacco and only 36.5percent of the smokers who visited health care providers in the last 12 months were advised to quit smoking. Thus, this NSP will explore further the relationship between tobacco and TB in the Tanzanian context and thus take appropriate targeted measures to those areas, which are mostly affected. In this line, the WHO guidelines to assist TB patients in quitting smoking will be explored to be adopted.

6.5.5 Nutrition care and counselling for TB patients

Undernutrition increases the risk of TB. It is estimated that undernutrition causes about one-quarter of all new TB cases globally. TB causes weight loss, micro, and macro nutritional deficiencies. Improving food security would greatly improve TB prevention nutrition. The Program will work with the nutrition unit to develop and disseminate Job aids, IEC, and SBCC materials on Nutrition and TB. Further efforts will be made to capacitate the service providers and provide them with appropriate supportive supervision and mentorship.

6.6. TB IN MINING

Objective 6: To strengthen TB services to population miners and their families by 2025

The main key priority activities in this objective include strengthening TB services to miners, their families, and surrounding communities. As the miner's populations are characterized by high mobility within and outside the country, then the objective will also focus on cross-border initiatives.

The mining industry in Tanzania is largely composed of Artisanal Mineworkers (ASM). The Ministry of minerals estimates 6 million ASM across the country. There are about ten high-volume mining sites in Geita DC, GeitaTC, Kahama TC, Msalala DC, Simanjiro DC, Tarime DC, Tarime TC, Kishapu DC, Chunya DC, and Nyanghwale DC. Mineworkers have the highest risk of getting

[33]Perriot J, Underner M, Peiffer G. Tuberculosis and tobacco smoking. J Tuberc. 2018; 1:1004.

TB infection than any other occupational-related population. The factors contributing to high TB in the mines include exposure to silica dust which increases the risk of pulmonary TB and silicosis; other factors which fuel TB in mining areas are environmental factors such as poor working and housing conditions, overcrowding, chemicals, and dust from mining areas, inadequate knowledge of TB disease and limited access to TB health services. The exact magnitude of TB among the mining population is not well known. However, the available l TB mining data showed that 60-70 percent of TB patients in the Simanjiro District in the Manyara region were originated from the Mererani mining area. Also, a mass screening campaign conducted in that area revealed 31 (4%) out of 750 people screened were confirmed bacteriological TB cases[34] this shows the prevalence is higher than is the national rate of 0.04percent. The assessment done across 6 of the 12 big mines in the country found out that facilities located within the mines notify more TB (89.3%)[35] than do others.

The NTLP is set to maintain the gains and scale up best practices from the regional TB in the mining sector project (SADC-TIMS) by adopting the following interventions. Surveillance models, addressing human rights and gender among mineworkers and establishment of centre of excellence for Occupational health Service Centre. The TB in Mining TWG will continue to be a platform for stakeholders to guide appropriate implementation and advice the programme on the emerging issues. The private mining companies will be sensitized to be part of the Stop TB Partnership so that they can contribute towards the efforts for domestic resource mobilization for TB control.

6.6.1 CROSS BORDER TB INITIATIVES

The history of infectious disease outbreaks, including Tuberculosis (TB) has been shaped by mainly intensive patterns of regional migration due to economic integration and socio-cultural practices, which include pastoralism or nomadism and insecurity. TB in the border areas is also fuelled by massive population movements along country borders. Border communities are particularly vulnerable to the spread of infectious diseases because they share a common environment, risk factors for disease spread, mobile populations of people, and often socio-economic disadvantage. These characteristics contribute to making the disease surveillance and rapid response in border areas critical for preventing or containing the spread of TB diseases across countries.

The Cross-Border Initiative (CBI) is a partnership between border health posts (district/regional medical office) of identifying and addressing the health issues of border population, transit routes and hubs, and population movement between borders, which impacts on, cross border transmission of communicable diseases including TB. These cross-border initiatives began during the previous NSP, focused its activities in three countries namely, Tanzania (host), Kenya, and Rwanda. The CBI seeks to strengthen partnership between border health facilities (district medical office) to identify and address the TB issues of border population, transit routes and hubs, and population movement between borders, which impact on cross border TB control. These activities will continue to be part of the current NSP.

Strategic Interventions

6.1 Increase access to TB services in artisanal mining sites
6.2 Scale up OHSC including capacity building to Healthcare workers and CSOs in the mining areas on TB and occupational lung diseases services
6.3 Sustain coordination mechanism of multisectoral approaches to address issues of TB in the mining sector
6.4 Scaling up and strengthening cross border TB initiatives (CBI)

[34]MAREMA report (2013)
[35]Assessment of the magnitude of tuberculosis in selected mining sites in Tanzania : Technical Report 2019

Objective 6 Targets

1. Fifty percent of known mineworkers screened for TB
2. Ninenty percent of the boarder implement cross boarder TB initiatives (CBI)

Objective 7: To reduce leprosy prevalence in all endemic councils by 2025

6.7 LEPROSY SERVICES

Elimination of Leprosy (defined as a registered prevalence of less than 1 case per 10 000 population) has not been achieved in few councils but achieved at the country level since 2006. Disabilities related to Leprosy disease are caused by delays in seeking health care services and in diagnosis at health facilities. The delays are due to low knowledge and stigmatization among the community and health care workers arising from myths and beliefs attached to this disfiguring disease.

The previous strategic plan did not achieve the reduction of levels of endemicity and grade 2 disability targets. Many children under 15 years are still getting new infections. Sixteen (16) endemic councils with higher leprosy notification rates are yet to achieve elimination levels. Lack of capacity and skills in the diagnosis and treatment of leprosy as most of the knowledgeable workforce is retiring or about to retire, and there is no refresher training for less experienced providers. There have been limited local and external resources to support Leprosy control

The objective is to eliminate leprosy in all district councils by increasing community awareness and providing adequate treatment to new cases. Given the existing gaps, the focus is on conducting elimination campaigns in the councils where the prevalence is still high while addressing disability grade 2 in all regions. The capacity for care providers' skills in diagnosis and treatment of Leprosy need to be built and sustained. During the implementation of NSP V, the programme introduced PEP in 6 district councils and initiated scale up to other 4 endemic councils. PEP was introduced through operational research conducted to test the feasibility of integrating the novel intervention into routine programmatic actions. Active case finding, targeted campaigns, household contact investigation, and PEP have been indicated as key as countries take the last mile to the ending of leprosy disease.

Objective 7 Target

1. Zero Councils with Leprosy prevalence > 1/10,000

Strategic Interventions

7.1 Strengthen targeted leprosy screening campaign in high endemic councils and hidden hotspots,
7.2 Strengthen the Prevention of Disability services, including self-care interventions, and
7.3 Scale-up of PEP in the remaining endemic councils.

Objective 8: To ensure availability of supportive systems and strengthened resilient Program management for the implementation of TB and Leprosy Services by 2025,

6.8 SUPPORTIVE SYSTEMS FOR TB AND LEPROSY PREVENTION CARE AND TREATMENT

Successful implementation of TB and Leprosy control services depends on, efficient and effective support systems. This objective aims at ensuring that, there is an adequate enabling environment for accessing services, multisectoral and community engagement, empowerment of the community through advocacy and communication, and efficient systems for the availability of

drugs and commodities. It institutes resilient Program management to ensure quality programming, appropriate coordination, resource mobilization, and engagement of other sectors for the quality accessible TB and Leprosy services.

6.8.1 Program Management Strengthening

Effective implementation of the strategic plan requires effective government stewardship, political commitment, and timely availability of resources. The next five-year priority is to build a resilient Program through the institutional capacity building of the Central Unit (TB and Leprosy Central Unit (TLCU) and the CTRL) and the sub-national level officers involved in the Program. The focus is on having an appropriate human resource capacity in terms of number, different skills and competencies, and strengthen coordination and program financial management at all levels, which would enable the mainstreaming of program quality.

In building human resource capacity, a relevant human resource development plan and a systematic process of assessing the performance will be put in place. The staff will be trained on appropriate program management courses as well as devising an annual teamwork capacity-building program. The emphasis is on knowledge sharing and learning from other programs, local and international, with the aim of improving program performance. Subnational performance appraisals will continue to be carried out as in the past NSP by recognizing and awarding the best regional and council performers as a motivation for improving performance.

Human recourse availability at all levels is a backbone to the Programme's performance; therefore, deliberate efforts will be made to address this. Innovative strategies such as the Mkapa fellows will be given priority to address TB and leprosy HRH gap. The analysis of the gap will be carried out in line with the analyses of the CCHPs to foster sustainability of the Program's key interventions at sub national level.

The use of information and communication technologies to improve Program's efficiency will be encouraged. Digitalization will also assist in the monitoring and evaluation systems of the Program to obtain quality data, which will definitely improve health care delivery systems in terms of planning, budgeting, and decision-making. In addition, to adapt to the high turnover of the coordinators and HCWs, the Program will thus invest on the e-Learning platform and use of audiovisual tutorials as the quick easy guide for the newly employed and the existing staff. The tutorials will be shared through audiovisual clips, the Program website, and other linkages. Furthermore, a formal version of the tutorials will be developed for the Ministry's e-Learning platform, which is a curriculum-based platform for formal continuous medical education with respect to TB and Leprosy management.

In order to ensure Program performance is well monitored, the management will conduct coordinative meetings such as quarterly Partner's meetings, Semi-annual planning meetings, and the traditional NTLP annual meeting. These meetings will also include Local Government Authorities at the regional and local levels. The Program will continue to provide guidance on collaboration with partners and supervise collaborative planning of the interventions and participatory monitoring and evaluation at all levels. This objective will further spearhead the introduction of the Multi-sectoral framework Approach. The aim is to attain the most political commitment at all levels of the government for stewardship to keep end TB and Leprosy elimination strategies high on the national agenda. Regular guidance on TB and Leprosy Prevention, Care and Control activities will be provided by the national multi-stakeholder TB and Leprosy Coordinating Committee through meetings. This committee will discuss and provide in-country and Global updates on TB and Leprosy control issues and agree on best practices.

Another key priority activity is to develop a resource mobilization and sustainability plan to sustain TB and leprosy control activities, including raising more domestic resources such as councils' resource contributions towards TB and Leprosy interventions in their respective plans at council and health facility levels. Resources will be leveraged through TB and Leprosy Partnerships, Development partners, and government contributions. Partnership forums will be used as avenues

for sensitizing high-level political leaders, development partners, NGOs, including other CSOs, and the private sector, to support TB and Leprosy control in the country. Advocacy meetings with the Local Government Authorities will be held to ensure TB and Leprosy Prevention, Care and Control activities are incorporated into Comprehensive Council Health Plans. Funding proposals to solicit funds will be developed both directly by the Program and through providing technical assistance to the partners. In addition, the stop TB partnership activities will be supported to energize the end TB fight through advocacy, social, and resource mobilization.

Financial systems will be strengthened to enhance implementation, accountability, and transparency. The Program has adopted the Government's electronic financial systems, particularly D-FUND and EPICOR systems, and it will continue to adhere to the government and development partners' financing regulations and requirements. NTLP team will be responsible for ensuring that quarterly internal auditing and annual stock taking for office facilities and supplies is conducted. The internal audit section of the Ministry will continue to play its guidance and supervisory role to the Program. Training of NTLP staff on the prevention and fight against corruption and grant oversight will also be part of fostering accountability and compliance.

7.6.8.2 Community Systems Strengthening

Strengthening community systems entails building infrastructure capacity and strong partnerships. Finding and treating all people with TB and leprosy and reach national targets of reducing deaths and suffering will require building robust community systems that will address gaps in the access and coverage of TB and leprosy services. Community-led responses are needed as part of the paradigm shift from top-down efforts to control the epidemic to a multisectoral collaboration to end TB and leprosy. This is also in line with global strategies such as End TB strategy and total elimination of leprosy.

This objective is committed to the strengthening of community participation and mobilization by engaging Civil Society Organizations (CSOs), Key vulnerable groups' Associations and Networks that work on TB and/or Leprosy such as Tanzania TB Community Network (TTCN)[36], National Ex TB patient Network (MKUTA) and Tanzania Leprosy Association (TLA). Since not all Ex TB patients' groups/ organizations are registered as MKUTA members, efforts will be made to support the groups to be officially registered. Other key priority actions include the support of these patient groups on coordination and the provision of capacity building to them.

Community health care workers will be provided with appropriate skills, knowledge, and equipment for the screening and management of TB and Leprosy patients. Deliberate efforts will be made to those providing Leprosy services through mobilizing, support, and collaboration with people affected by leprosy to establish and run strong and active groups will increase and strengthen their participation in leprosy services. Groups may include self-care, self-help, community volunteers (local, district, regional, or national networks), or disabled people's organisations.

Community-led monitoring is an important aspect for community response and thus the One Impact Application, a digitalized platform (developed with the assistance from EANNASO under Stop TB partnership) for the actors' feedback and networking developed during the last NSP will be operationalized and monitored. The National community TB Technical Working Group (Com TB TWG) will continue to address technical issues related to the implementation of the community-based TB guidelines. It will provide strategic guidance to accelerate the country's progress towards the reduction of the burden of Tuberculosis through community engagement.

6.8.3 Underlying social economic determinants and barriers to TB services

Efficient and effective delivery of TB services should be based on where and how people can most easily access services. There are several factors, which present barriers to utilizing appropriate

[36]A platform for 32 CSOs members that meet biannually to share lessons learned and best practices. And sensitize unengaged NGOs on the rationale for the integration of TB into community-based health, HIV, and other development programmes.

services for TB and Leprosy patients. Through NSP V, several factors have been addressed, especially for the MDRTB patients, by providing support for nutrition, transport, and laboratory investigations. In TB case detection, support for the investigations, which are not offered freely, such as X-ray services, have been provided using different modalities. The first TB patient cost survey and the Community Right and Gender assessment were conducted in 2018 and 2019, respectively. A significant (45%) proportion of the TB patients has been identified as facing catastrophic cost[37]

People with TB have the right to be free from discrimination in all settings, including health care, employment, housing, education, and migration. As TB is often associated with poverty and other socially "undesirable" behaviours and living conditions, people with TB or suspected of having TB may be stigmatized and discriminated against based on their perceived socio-economic status, behaviours, and because of TB. Some researches show that women may be significantly more vulnerable to stigma than men, with TB status undermining real or perceived marriage prospects[38] Stigma and discrimination discourage the seeking and up taking of TB testing and treatment services. For people with HIV-TB co-infection, TB-related stigma might be exacerbated by HIV-related stigma.

Thus, in line with the national health priority of achieving universal health coverage, this objective will focus on addressing the barriers to TB services in a holistic manner. Universal Health Coverage means that all people have access to the health services they need, when they need them, without financial hardship. Thus, among the key priority will be the exploration of interventions to address financial barriers to the access of TB services using the existing functional structures and best practices from other programs. TB Social protection operational guidelines will be developed and include the adaptation to the existing health insurance modalities, including the expected mandatory health insurance. This will be achieved through collaboration with relevant ministries and sectors to alleviate the burden of income loss for patients and food security. The interventions to safeguard social protection for TB and leprosy patients will be implemented in line with the country's vision on social protection, which is to *"To have a nation that protects the poor and vulnerable, promotes inclusive growth, and provide a minimum acceptable standard of living to all Tanzanians."* Actions to reduce the burden beyond medical costs, such as transport and nutritional packages, will be supported, and social-economic activities to support the patients will be explored.

The objective will address further human rights and gender barriers, as they are a key to the successful implementation of interventions in the health sector. Priority will be to capacitate and support community actors to conduct dialogues to understand the barriers further in different contexts such as cultures and geographical aspects. The community will be provided with TB and Leprosy education, psychosocial support, social mobilization, community monitoring and advocacy to reduce stigma and discrimination in their communities. There will also be investment to support access to legal services among marginalized populations already prone to discrimination and exclusion. TB patient Charter will be reviewed and shared to TB patients and health workers to protect the patients' rights.

[37]Mhalu G, Hella J, Mhimbira F, et al. Pathways and associated costs of care in patients with confirmed and presumptive tuberculosis in Tanzania: A crosssectional study. BMJ Open 2019;9:e025079. doi:10.1136/ bmjopen-2018-025079

[38]Miller et.al.(2017). 'It makes the patient's spirit weaker': tuberculosis stigma and gender interaction in Dar es Salaam, Tanzania, International Journal of Tuberculosis and Lung Disease 21(11):S42–S48

6 6.8.4 Advocacy, Communication and Social Behavioural change

In the previous NSP, the TB and leprosy Advocacy, communication, and Social Mobilization strategy was launched. The Objective for this NSP will be to revise the strategy in line with new developments and key issues in addressing human rights, medical ethics, and legal literacy in relation to TB and Leprosy services. The social behavioural change will be a key component, and its interventions will apply evidence-based approaches to address problems (social norms, cultural, beliefs, and practices) where changes in behaviour or social conditions are required to achieve the outcomes of TB and leprosy health development. The already established structures and networks such as the TB caucus and the parliamentarian's HIV, Narcotics, and TB standing committee will be strengthened for best and productive engagement for making TB political agenda. The communication modes and materials will innovatively be sharpened, and a stigma index assessment will be conducted to inform further the nation on TB response. The engagement of influential people such as political figures, religious leaders, and national celebrities will also be promoted.

The baseline survey on TB treatment seeking behaviour, household's gender-based violence, and accessibility to TB treatment services among household's women and their families infected/ affected by TB/AIDS will be conducted, and the findings will be disseminated during constructive dialogues with local government policies, decision-makers, council health management committees, and health workers.

TB resources and policies will be mapped to identify strengths and gaps and shared with local government leaders, decision-makers, council health management committees, and health facilities' governance committees to advocate for policy improvement and resource allocation for TB services. Furthermore, the already established mHealth TB awareness and education application will be maintained and improved further to accommodate TB treatment adherence and contact tracing components.

6.8.4 Public-Private Mix

Achieving 90 percent treatment coverage will require robust participation of diverse actors out of the public health sector, including private healthcare providers, pharmacies, and other health service providers. This is because patients with presumptive and confirmed TB follow a complex pathway to care before reaching suitable healthcare facilities for TB diagnosis and treatment. As such, pharmacies and traditional healers were identified as the main healthcare providers for treatment seeking after the onset of symptoms[39]. This NSP will build on previous achievements in implementing PPM strategies to intensify TB case finding, diagnosis, and treatment among private for-profit health facilities, pharmacies, and ADDOs. Treatment will also expand to involve other private service providers such as standalone laboratory facilities and traditional healers

Key priority activities include sensitization of the private health facilities' owners, assessment on the readiness of the facilities (including integration of the presumptive registers to their existing electronic medical records systems), and support to introduce TB and leprosy services such as training to their HCWs. In addition, the task force will collaborate with APHTA as a crucial platform to improve the provision of TB and Leprosy services in the private sector.

6.8.6 Health Products Management

The priority of this intervention is to have an uninterrupted supply of quality TB and Leprosy medicines, laboratory commodities, and other supplies by maintaining efficient and responsive procurement and supply management system. The introduction of the eLMIS during the previous NSP has successful transitioned from push to pull inventory control system of the first-line drugs. The focus will now be on the second-line drugs and laboratory commodities to be able to be tracked along the existing supply chain. The eLMIS e-data visibility at the facility level and that for Laboratory commodities will be scaled up to all enabled facilities.

[39]Mhalu G,Hella J, Mhimbira F, et al

The capacity building to the HCWs on the management of TB and Leprosy drugs is prioritized and includes the knowledge and skills on quantification and active drug safety monitoring and management system (aDSM). The aDSM will be improved to align with TMDA databases. Further, the Programme will continue to improve coordination and collaboration with all parties involved in clearing and distribution of the products to address delays in the processing of import permits and port clearances.

Strategic Interventions

8.1 Institutional capacity is built to:
8.1.1 Improve human resource capacity, planning, and management for TB and Leprosy
8.1.2 Strengthen coordination and Management of the implementation of SP
8.1.3 Mobilize Resource and management of NSP
8.1.4 Ensure accountability of TB and leprosy Programme at all levels
8.2 Build community linkages and coordination
8.3 Address the underlying social determinants and barriers to TB and Leprosy services
8.4 Promote advocacy and communication for TB and leprosy control in the country
8.5 Strengthen TB care, treatment, and prevention services in the private health sector
8.6 Ensure uninterrupted supply of TB and Leprosy medicines, Lab commodities, and other supplies

Objective 8 Target

1. NTLP Funding gap reduced by 50%
2. TB Stigma index established
3. Thirty percent of notified TB cases (all forms) contributed by community referrals
4. Twenty five percent of notified TB cases (all forms) contributed by – private/non-governmental facilities
5. Hundred percent of Hospitals and Health centers direct monthly report in the eLMIS

6.14 MONITORING, EVALUATION, AND LEARNING

Objective 09: To ensure implementation of evidence-based interventions and decision making through institutionalized efficient M&E system and coordination of researches by 2025.

Objective 9 intends to strengthen the M&E system to continue collecting, compiling, and analyzing quality data for decision-making and better management. The NTLP M&E system comprises the collection of information from routine data, programmatic updates, surveys, and operational researches.

The facility-based routine data -Surveillance system has been successfully digitized and is currently able to collect case-based records in a DHIS2 platform. It allows a better understanding of the disease burden by providing disaggregation on age, sex, occupation, co-morbidities, and some vulnerable populations. However, due to the challenging ICT environment, not all facilities are able to report directly.

To continue building a reliable routine surveillance system that can provide real-time data, digitization is a priority in this NSP. Thus, other routine data collection sources that need to be digitized, such as TPT management, Community based activities, DQA, mentorship, and supportive supervision tools, will undergo digitization in this NSP. The digitization of the DQA and supportive supervision tool will provide the opportunity to be easily integrated and accessed with the general Regional and Council Health management team supervisions and hence improve efficiency. Furthermore, the existing routine surveillance system needs to be integrated and linked with the existing MoH/CHMTs and other collaborative programs' systems and databases such as EMRs: (GOTHOMIS, AFYACARE), CTC, and eLMIS for improved surveillance and programme monitoring. Through this objective, the Program will improve routine laboratory surveillance system by integrating the existing systems: TBLIS, GeneXpert machines and the DHIS2ETL.

Training of health care workers on using both electronic and paper tools to collect, analyze data,

and use the data for decision-making will still be a priority in which other modalities apart from face to face lessons will be applied. Information on the status of the implementation of activities conducted at each level will be monitored and reported periodically including coordination and reporting of activities implemented by partners.

Other areas of focus will be the improvement of data quality, data analysis and use at all levels. DQA activities will be decentralized and data review meetings strengthened at all levels. Guidelines on data management and data assurance will be developed to reflect the currently improved DHIS2ETL to ensure all diagnosed patients are being registered to avoid initial lost to follow up. The use of GIS mapping will be explored and implemented to enable more robust targeted interventions such as identification of leprosy-hidden spots, distribution of MDRTB patients, allocation of diagnostic services, and referral linkages.

The Program will continue to invest on operational research and strengthen the collaboration with research institutions and academia with the aim of spearheading TB researches in the country. Deliberate efforts will be made to develop a Country TB and Leprosy research plan by involving all key research stakeholders with the purpose of increasing TB and Leprosy visibility to potential research funders and the recipients. The researchers are expected to inform the program on the ongoing strategies so that they can either be scaled up or modified. In addition, studies to introduce new technologies, treatment models, and interventions will be implemented.

Capacity building to coordinators, especially at sub-national level, will be at the heart of the implementation of these researches, such that results are used timely to improve services. The awarded TB and Leprosy researches will also be used to provide career growth of the officers such as PhD under the guidance of the formalized Institutions.
Strategic Interventions

9.1 Improve the TB surveillance system's ability to measure the burden of TB and Leprosy accurately
9.2 Improve the quality of TB and leprosy data
9.3. Monitor the implementation of NSP VI
9.4. Capacity building of data analysis and use at all levels
9.5. Implement TB and Leprosy Operational Research agenda
9.6. Strengthen Collaborate with TB and leprosy research stakeholders

Objective 9 Target
A hundred of Routine data Indicators listed in the NTLP M&E Plan are measured and reported through electronic platforms

SECTION 7: STRATEGIC PLAN IMPLEMENTATION

7.1 KEY STAKEHOLDERS

The implementation of NSP 2020-2025 requires close collaboration of all partners and stakeholders, public sectors, civil society, private sectors, and communities. Table 7 presents a list of key stakeholders whose support and involvement are critical to achieving the desired results of this Strategic Plan. Stakeholders' roles and responsibilities appear in Annex 2.

7.2 GOVERNANCE and LEADERSHIP STRUCTURES

Governance structures to oversee the implementation (stewardship) of the current strategic plan are at three levels, namely, National, Regional, and Local government authorities.

7.2.1 Ministry of Health, Community Development, Gender, Elderly and Children

The MoH is mandated with the formulation of policies on health community development regarding gender, the elderly, and children, resource mobilization, monitoring, and evaluating their implementation to ensure that all Tanzanians access quality health and social welfare services. The MoH, through its political commitments, leads the health sector response supported by other sectors and partners. In this regard, the MoH collaborates with internal and international partners who provide technical and financial support to the Program. The Ministry provides overall guidance on all matters of TB and leprosy prevention, care, and control in the country. The governance structures under the MoH are as explained in the preceding sections.

7.2.2 MoH Senior Management Team

The Permanent Secretary (PS) chairs the senior management team (SMT) of the MoH. Other members include the Chief Medical Officer (CMO), all directors of Ministerial departments, and directors of Agencies and Units under the MoH. The SMT is responsible for providing daily oversight and management guidance to all health programs and activities. The SMT approves all plans (including NTLP strategic plan) and budgets.

Table 7.1. Partners and Stakeholders

Partner/Stakeholder Type	Partner/Stakeholder Name
MOHCDGEC	CMO, DPSDCS, DPP, RRHMT, RHMT, CHMT
PO RALG	Health and Social Welfare unit
MOHCDGEC-agencies and Institutes	Such as Medical Stores Department (MSD), Tanzania Medicine and Medical Devices Authority (TMDA), Private Health laboratories
	Board (PHLB), National Health Quality Assurance Laboratory and Training Centre (HQALTC),
Other Ministries and Government bodies	Prime Minister's Office: TB Caucus, HIV and AIDS Parliamentary committees, other ministries such as Ministry of Education,
Development partners[40]	Bilateral organizations, multilateral organizations, and private foundations. Development Partners are also organized into Development Partners Group for Health (DPG-Health) and for HIV and AIDS (DPG-AIDS).
Implementing partners	International and Local Non-Government Organizations and Faith Based Organizations and community Based Organizations. These include: German TB and Leprosy Relief Association (GLRA),

[40]The complete list of DPs supporting the health sector is in the reports of the Annual Public Expenditure Review (PER) Health

	International Union Against TB and Lung Disease (IUATLD), PATH, ICAP, AMREF, Management Sciences for Health (MSH) and Christian Relief Services (CRS), AIDS Relief, EGPAF, FHI360. CSSC, Baylor, Pastoral Services for People with AIDS (PASADA), Pharm Access, EANNASO and others.
Health facilities	Public and private health facilities
Research and Academia Institutions	National Institute Medical Research (NIMR) Ifakara Health Institute (IFI), Muhimbili University of Health Alliance Sciences (MUHAS), KCMC, MUHAS, Weill Bugando University College of Health Sciences; Tumaini University School of Medicine; Hubert Kairuki Memorial University and others, and others
CSOs	e.g. Ex TB umbrella organization in Tanzania (MKUTA)
Community Based Organizations	*Mapambano ya Kifua Kikuu na UKIMWI Temeke* MKUTA, Association of Miners and other EX-TB groups, PLHIV Organisations
Community	Families, Community Based and Ex-TB groups and community leaders as well as individuals

7.3 MANAGEMENT OF THE STRATEGIC PLAN

7.3.1 TB and Leprosy Central Unit

Under the structure of the Director of Preventive services, the overall coordination of TB and Leprosy activities at the national level by the Programme Manager who oversees all the technical, financial, and administrative operations. The CTRL is part of the TLCU, which is responsible for the translation of national health policy and other national and international guiding frameworks for efficient programmatic management. This includes ensuring of a strong TB laboratory network and a more responsive quality TB lab services for the whole population. The unit takes a lead in mobilizing sufficient resources to support country efforts of fighting both TB and Leprosy diseases.

It coordinates training of health care providers at all levels, quality assurance, and operational research. The TLCU advises the PORALG and RHMTs and other partners on all matters of the control of TB, TB/HIV, and leprosy in the regions. It is also responsible for mentoring of RTLCs, DTLCs, and TB/HIV Officers and other staff during supervision visits and program meetings. This technical assistance is expanded to include the Zanzibar TB and Leprosy Program.

7.3.2 Regional Health Management Team

The TB and Leprosy technical focal person for RHMT is the RTLC, who is administratively answerable to the Regional Medical Officer. TLCU guides the RTLC on all technical issues. The RTLC advises RHMTs and CHMTs on all matters on TB and leprosy control.

7.3.3 Council Health Management Team under the Local Government

The CHMT is responsible for ensuring the delivery of quality TB and Leprosy services in the councils.

The DTLC and the TB/HIV Officer provide technical guidance to the CHMT, and are answerable to the DMO. They identify TB, TB/HIV, and leprosy care and control activities as funded by the council's partners and is included in the CCHP. They are responsible for conducting supportive supervision to health care workers who manage TB, TB/HIV, and leprosy patients. The DTLC also oversees the implementation of community-based TB care and ACSM activities and prepares quarterly financial and technical reports submitted to the DMO. Other key responsibilities include ensuring that activities for TB, TB/HIV, and leprosy care and prevention are integrated into the

primary health care services through training, mentorship, supportive supervision, and availability of drugs, laboratory equipment, and reagents. The Council Social Welfare Officer (SWO) supports the DTLC to ensure that TB and leprosy services are provided free of charge according to the national policy. The SWO also supports the prevention of disabilities activities for leprosy patients.

7.3.4 Health facility and Community Levels

Health care workers at the health facility level are responsible for providing and sustaining the quality of TB, TB/HIV, and leprosy services. They conduct monitoring of the implementation of the TB program activities in the facilities, review of reports to identify gaps and identify quality improvement actions for continuous performance. They also the link and supervise the community activities within their areas of catchment.

7.4 Costing and Financing the National Strategic Plan

7.4.1 Costing of the NSP

The TB NSP budget represents all proposed interventions and activities without applying a specific threshold on costs and resources. The unit costs used aligns with the Government of Tanzania rates for specific cost categories such as travel etc., and costs used in the Global Fund costing framework for HR, equipment, supplies, and services. The TIME model was used to model a set of ambitious and moderate funding scenarios. Outputs from scenarios modelled in TIME, including an ambitious NSP package (equivalent to the full NSP package of interventions), were used to define a feasible budget envelope that aligns with the wider Health Sector Strategic Plan (HSSP).

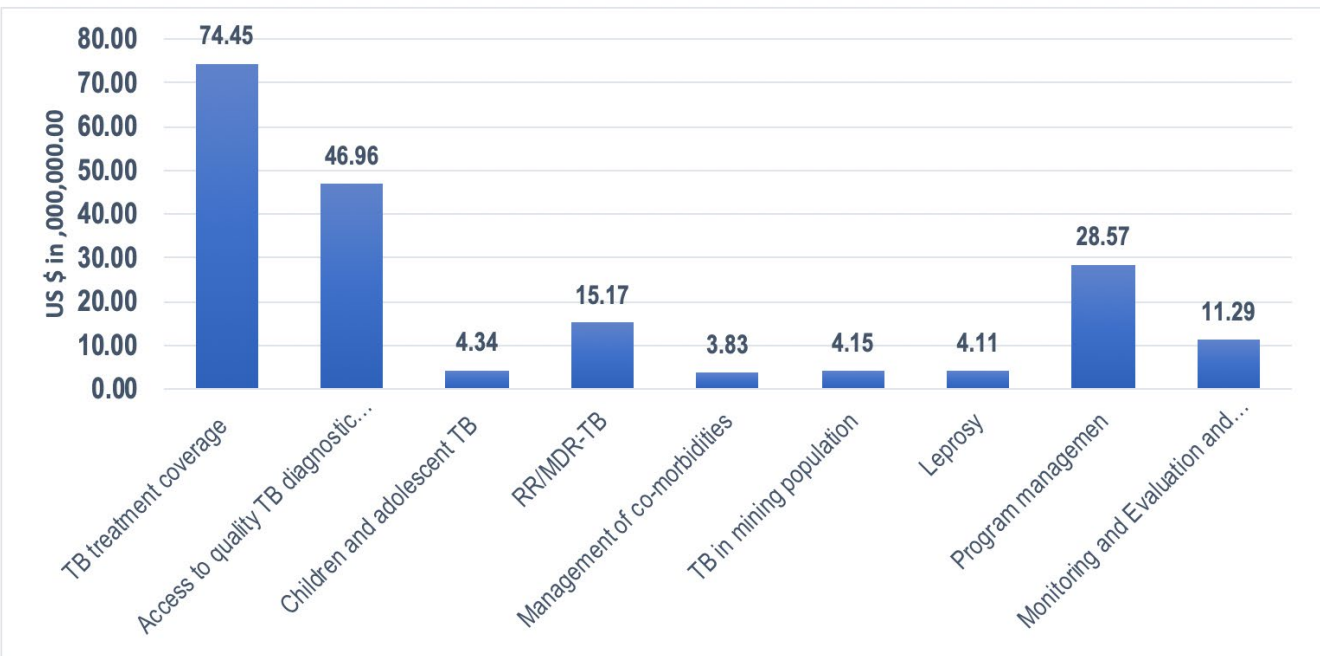


Figure 7.1 NSP Cost disaggregated by Objectives/Service Delivery Areas (2021-2025 totals)

Figure 7.1 NSP Cost disaggregated by Objectives/Service Delivery Areas (2021-2025 totals)

This ambitious scenario includes the core program investments and a combination of community-based case finding among Key Vulnerable Populations (KVPs), Facility-based QI-ICF and Improved access to diagnostic services, as well as additional interventions outlined in full in the modelling report If funded as planned, the ambitious NSP package investments would require 86% (~Tshs. 364 billion) of the fullTB NSP budget.

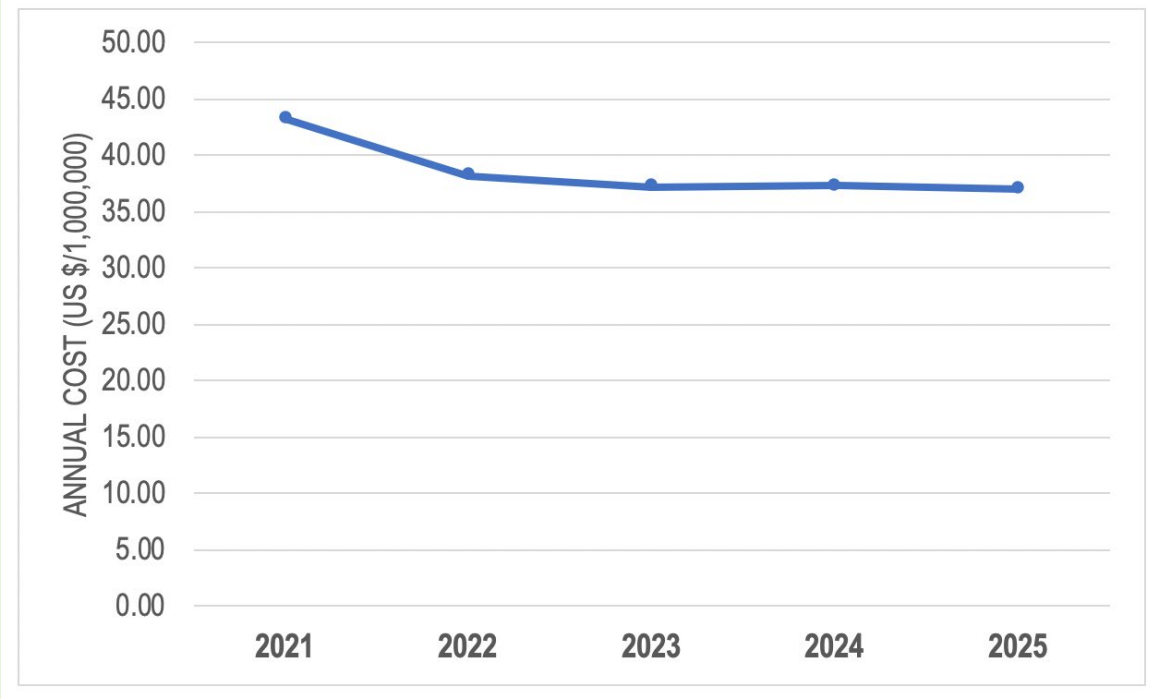


Figure 7.2 Projections of total budgeted costs per year (US $) for the ambitious NSP package scenario

7.4.2 Financing the NSP

Financing of the National Strategic plan will come from the Government, Development partners, Public-Private Partnership such as the mining sector, cooperates, private health actors and Community self-financing

i. Government funding comes through the MTEF of MoH, PO-RALG, and CCHP of the Local Government Authorities. The source of the funding is from government taxes, World Bank Credits, and Development partners through Budget support. The Ministry of Finance releases budget guidelines towards the end of each calendar year with the budget ceilings for each sector. These guidelines depend on Government priorities (central and sectoral). The Five-year development plan highlights the priorities in the health sector which are being translated into the HSSP V and thus for TB and Leprosy control.
ii. Some Development Partners fund the health sector through basket funding. While the funding contributing to the Health Basket fund (HBF) is not earmarked, in most cases, there is no allocation for TB and Leprosy control. HBF is, however, available to support health systems that also benefit TB and Leprosy interventions such as Diagnostic services, RCHS, M&E, and human resource for health. NTLP will engage with sections, units, and programs funded by Basket funds to ensure that health systems interventions that support TB and Leprosy control are fully covered.
iii. The Global Fund and PEPFAR are major global initiatives that finance TB control interventions. Most of the PEPFAR funds are channelled through Implementing Partners (international and local). USAID, through its new funding mechanisms, intends to fund the Government directly.
iv. Bilateral funding from partners such as GLRA has been one of the reliable sources of supporting the implementation of Leprosy control services and strengthening monitoring and supervision and provision of transport. GLRA has hugely reduced direct support to NTLP. Hence, the programme will need to identify new sources, especially for Leprosy control and running costs of program vehicle and motorbikes.
v. Other sources of funding will be self-generated revenues from local government councils and community initiatives by the CHMTs and RHMTs,
vi. Engaging the private sector (corporate, businesses, and individuals) to support the implementation of the planned activities, and
vii. The AIDS Trust Fund (ATF) and proposed Health Commodities Fund

7.5 RISK FACTORS

The success of this Strategic plan is contingent upon other factors and assumptions made during the SWOT analysis. In addition, to make the objectives achievable and realistic depends on these factors. The availability of financial and technical support, both external and domestic, is crucial. The presence of an adequate number and qualified staff with relevant competence is a prerequisite

for the success of this plan. The availability of TB/Leprosy drugs and laboratory commodities is vital. Community participation and the continued support of the Community actors are essential to the success of this plan.

Table 7.2: Risk analysis and mitigation measures

Risk	Proposed Mitigation Measure
NTLP is development partner's dependent for fund for most its interventions.	i. MoHCDGEC and PO-RALG to increase allocation of funds for TB and Leprosy control from domestic sources. ii. Advocate for support from the private sector for TB and Leprosy funding iii. Establishment of Multisectoral Accountable framework and STOP TB PATNERSHIP
Shortage of human resource and competing priorities for overworked coordinators at regional and council levels may compromise the delivery of TB and Leprosy services	i. MoH and PO-RALG should ensure availability of adequate health work force at all level. ii. Introduce innovate solutions for hiring such as Mkapa Fellows iii. Introduce innovative easy to conduct capacity build for new staff such as e-learning
Incidences of extreme weather conditions and subsequent Infrastructure destruction interrupting TB and Leprosy program implementation and service delivery	i. Integrate basic TB and Leprosy services to be retained in the overall National response plans
Occurrence of pandemic outbreaks: results in paying more attention to the outbreaks and also key Program officials and Coordinators being heavily involved in the outbreak responses	i. Develop basic Operational plans and guidelines to follow to minimize effects of possible service disruptions

7.6. OPERATIONAL AND ANNUAL WORK PLAN

Implementation of the Strategic (core) plan is through implementing the Operational plan. The Plan details short-term measurable results (outputs), priority actions, and activities that will help the Program to realize vision, goals, and objectives in five years. The activities are, in turn, detailed with multiyear targets and time frames to create a practical work-plan. On an annual basis, individual units (or regions) prepare departmental (regional) or council operating plans from the national operating plans. Individual staff or health facility teams will develop quarterly operating plans. At the end of each year, there will be a performance review to prepare for the following year. Details on monitoring and evaluation appear under the Monitoring and Evaluation Plan.

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