REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

NATIONAL STRATEGIC PLAN FOR TUBERCULOSIS AND LEPROSY PREVENTION, CARE, AND CONTROL

(2022 - 2026)

Foreword

Zambia developed this National Tuberculosis and Leprosy Strategic Plan (NSP) to provide strategic guidance on the interventions to accelerate the TB Elimination Goal by 2030. This NSP represents Zambia's ambitions to eliminate TB and Leprosy in line with global commitments. The focus is not merely on controlling these two diseases but on having a country free of TB and Leprosy.

This NSP was developed through inclusive participation of all stakeholders. Routine and research data were systematically synthesized to inform the prioritization of interventions. Recommendations from various programme reviews and external technical assistance missions also informed this NSP.

The implementation and lessons learned from the preceding NSP (2017-2021), under which we recorded an accelerated decline in the burden of TB, laid a firm foundation for consolidating Zambia's desire to eliminate TB by 2030. The TB incidence reduced by 58%, from 759 per 100,000 in 2000 to 319 per 100,000 in 2020. In the same period, the TB mortality rate declined from 228 per 100,000 in 2000 to 81 per 100,000 in 2020. Further, responding to the low TB notifications that plummeted to their lowest levels of 35,922 TB patients in 2018, Zambia demonstrated resiliency by increasing annual TB notifications to 50,825 in 2021. The best performance regarding TB notifications was when the health services in Zambia were negatively impacted and stretched by the COVID-19 Pandemic. These achievements showed the resilience of our health system.

This new NSP, aligned with the National Health Strategic Plan (2022–2026), the World Health Organization's Global END TB Strategy, and the United Nations Sustainable Development Goals (SDGs), builds on the successes of the previous NSP. This NSP resonates with the grand vision and policy directives of the New Dawn Government, which aims to provide quality health care for all Zambians.

While implementing this NSP, the Government will endeavour to expand the laboratory TB diagnostic network with rapid and sensitive tools to all urban and rural health facilities and ensure skilled healthcare workers are equitably deployed across the five-tiered health system structure. The Government will create an enabling environment to allow all sectors' participation, including the private sector, in the fight against TB.

Increasing TB awareness among the citizenry, rooting out TB stigma and implementing decentralized gender and human-rights-sensitive strategies will be the bedrock of our TB response.

Enhanced and sustained direct financing of TB inventions by increasing domestic and international funding is highly required to achieve our goal of eliminating TB by 2030.

Finally, I welcome this comprehensive national strategic plan for the TB and Leprosy programme, as the principal guiding document for the national response to ending TB in Zambia. I urge all public and private health institutions, development partners, academia, research institutions, faith-based organizations, civil society organizations, and community-based organizations to plan and implement TB and Leprosy intervention based on this NSP.

Honourable Sylvia T. Masebo, MP
Minister of Health

Acknowledgement

The development of the National TB and Leprosy Strategic Plan (NSP) 2022-20265 took over six months through a consultative process involving multiple stakeholders in Zambia. The process was led by the technical team of the National TB and Leprosy Control Programme under the leadership of the TB and Leprosy Programme Manager, assisted by the United States Agency for International Development (USAID) supported Senior TB and Global Fund Grant Advisor. The Director of Public Health and Research in the Ministry of Health provide the overall guidance throughout the process of developing this NSP.

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Abbreviations

ACSM	Advocacy, Communication, and Social Mobilization
aDSM	Active Drug Safety Monitoring and Management
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
CBO	Community-Based Organization
CBoH	Central Board of Health
CDC	US Centres for Disease Control and Prevention
CHAZ	Churches Health Association of Zambia
CHWs	Community Health Workers
CIDRZ	Centre for Infectious Disease Research in Zambia
CSO	Civil Society Organization
DHIS	District Health Information System
DHO	District Health Office
DHS	Demographic and Health Survey
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment, Short Course
DRS	Drug Resistance Survey
DST	Drug-Susceptibility Testing
eLMIS	Electronic Logistics Management Information Systems
EQA	External Quality Assurance
FBO	Faith-Based Organization
GDP	Gross Domestic Product
GFTAM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GRZ	Government of the Republic of Zambia
HFS	Health Financing Strategy
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IC	Infection Control
ICF	Intensified Case Finding
IPT	Isoniazid Preventive Therapy
LPA	Line Probe Assay
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MDR/RR	Multidrug Resistant/Rifampicin Resistant
MDR-TB	Multidrug-Resistant TB
MOH	Ministry of Health
MoU	Memorandum of Understanding
MSL	Medical Stores Limited
NAC	National AIDS Council
NCD	Non-Communicable Disease
NGO	Non-Governmental Organization
NHSP	National Health Strategic Plan

NRL	National Reference Laboratory
NSP	National Strategic Plan
NTLP	National Tuberculosis and Leprosy Programme
OHSI	Occupational Health and Safety Institute
PATH	Programme for Appropriate Technology in Health
PEPFAR	US President's Emergency Plan for AIDS Relief
PHC	Primary Health Care
PHO	Provincial Health Office
PITC	Provider-Initiated HIV Testing and Counselling
PLHIV	People Living with HIV
PPE	Personal Protective Equipment
PPM	Public-Private Mix
PQE	Program Quality and Efficiency
PSM	Procurement and Supply Chain Management
PTB	Pulmonary Tuberculosis
PViMS	Pharmacovigilance Monitoring System
QA	Quality Assurance
QI	Quality Improvement
SADCAS	Southern African Development Community Accreditation Services
SOP	Standard Operating Procedures
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TA	Technical Assistance
TB	Tuberculosis
TB/HIV	HIV Coinfection with Tuberculosis
TDRC	Tropical Disease Research Centre
USAID	United States Agency for International Development
UTH	University Teaching Hospital
VCT	Voluntary Counselling and Testing
VRS	Vital Registration System
WHO	World Health Organization
ZAMBART	Zambia AIDS Related Tuberculosis [Project]
ZAMMSA	Zambia Medicines and Medical Supplies Authority
ZAMRA	Zambia Medicines Regulatory Authority

SECTION ONE: INTRODUCTION AND BACKGROUND

1. Political and Administrative Structures and Economy

1.1 Introduction

TB remains one of the top infectious killers in the world. In 2020, globally, an estimated 9,870,000 (8,880,000-10,900,000) fell ill with TB. Twenty five percent of the global burden of TB was in the World Health Organization (WHO) African Region (AFRO). However, as few as 5.8 million TB patients were diagnosed and reported to the national programmes. The 2020 global performance represents a decrease by 18% in reported TB patients compared with 2019 likely due to the impact of COVID-19 on TB services. By comparison, the WHO AFRO reported a modest fall of 2.5%. According to the Global TB Report 2021, achievement towards the mortality reduction milestone for 2020 was only 9.2%, just above a quarter of the 35% reduction target in the Global End TB strategy. Equally, the 2020 milestone for reducing incidence rate was 11%, which was just half of the target of 20%. To accelerate the global TB response, the United Nations General Assembly convened a High-Level meeting on TB in September 2018 where several global targets were endorsed by Heads of States and governments, including targets to treat 40 million people with TB between 2018 and 2022, 3.5 million children with TB, 1.5 million people with drug-resistant TB and at least 30 million put on TB Preventive Treatment (TPT). The new NSP 2022-2026 is responding to these commitments and targets based on the pillars and principles outlined in WHO's End TB Strategy.

The proposed NSP (2022-2026) describes key interventions and activities to enable Zambia to move towards achieving the End TB Strategy's Milestones for 2025 (75% reduction in TB deaths and 50% reduction in TB incidence rate and targets for 2035 and 95% reduction in TB deaths and 90% reduction in TB incidence rate.

The outline of the NSP consists of six associated components as follows:

1. The Core Plan
2. The Operational Plan
3. The Monitoring and Evaluation (M&E) plan
4. The Technical Assistance (TA) Plan
5. The budget plan.

1.2 General Country Background

Zambia is a landlocked country in Southern Africa located between latitudes 8° and 18° south and longitudes 22° and 34° east and covers a total area of 752,612 square kilometres. Zambia is a large, resource-rich country with sparsely populated land[1]. Zambia shares its border with eight countries (Angola, Botswana, Democratic Republic of Congo, Malawi, Mozambique, Namibia, Tanzania, and Zimbabwe). Zambia is divided into 10 provinces, (namely Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North-western, Southern and Western) and 116 district, 156 constituencies and 1,858 wards. The government is comprised

[1] www.victoriafalls-guide.net/zambia-geography.html

of Central and Local Governments. Copperbelt and Lusaka provinces are densely populated urban Provinces with the highest burden of the dual epidemics of HIV and TB.

The Republic of Zambia is a lower middle-income country (LMIC) with a population of nearly 18 million with the rural population constituting 55.37% in 2020, according to the World Bank Report. The people live in sparse, hard to reach villages with generally poor but improving roads and telecommunications network. More than 58% (2015) earn less than the international poverty line of $1.90 per day (compared to 41% across Sub-Saharan Africa).

1.3 Demographics Characteristics

Zambia is experiencing a large demographic shift and is one of the world's youngest countries with a median age of 17.6 years. Total population is estimated at 18.4 million, with 49.5% males and 50.5% females. The rural and urban population constitute 55.4% and 44.6% respectively. The population is growing rapidly at 2.8% per year, partly because of high fertility rate, resulting in the population doubling close to every 25 years[2]. The 2018 ZDHS estimated the Total Fertility Rate (TFR) to be 4.7 births per woman; it is higher (5.8 children per woman) in rural than urban areas (3.4 children per woman).

This trend is expected to continue as the large youth population enters reproductive age, which will put even more pressure on the demand for jobs, health care and other social services.

1.4 Political and Administrative Structures[3]

Zambia is a Constitutional Republic governed by a democratically elected president with one legislative chamber. The government structure is composed of ten provinces that are headed by a provincial Permanent Secretary who is under the direction of the Provincial Minister. The provinces are further divided into districts, constituencies, and wards. District, city, and municipality are the basic decentralized administrative units headed by mayors, district commissioners or district chairpersons.

1.5 Socioeconomics and Economic Development Agenda[4]

After 15 years of significant socio-economic progress and achieving middle-income status in 2011, Zambia's economic performance has stalled in recent years. Between 2000 and 2014, the annual real gross domestic product (GDP) growth rate averaged 6.8%. The gross domestic product (GDP) growth rate slowed to 3.1% per annum between 2015 and 2019, mainly attributed to falling copper prices and declines in agricultural output and hydro-electric power generation due to inadequate rains, and insufficient policy adjustment to these exogenous shocks[5].

The COVID-19 (coronavirus) pandemic pushed into contraction an economy that was already weakened by recent persistent droughts, falling copper prices and unsustainable fiscal policies. Economic activity through the third quarter of 2020 contracted by 1.7%, as declines in industry and services outweighed growth in agriculture. Mining and services suffered from lower global demand and social distancing measures earlier in the year, respectively. However, relaxation

[2] www.worldometers.info/demographics/zambia-demographics/
[3] Please enter valid footnote
[4] Zambia Overview: https://www.worldbank.org
[5] The World Bank in Zambia Report (2021) https://www.worldbank.org

of the lockdown measures in the second half and a global pickup of copper prices helped activity to recover. Overall, the economy is estimated to have contracted by 1.2% in 2020, the first recession for Zambia since 1998. Inflation remained in double digits throughout 2020 averaging 15.7% and reached a high of 22.2% in February 2016[6].

1.6 Health profile and health system

1.6.1 Zambia's Health Profile

The health sector has registered a tremendous progress in health outcomes due to several improvements comprising of the availability of pharmaceutical and other health supplies, health infrastructure improvements such as the construction of health posts and the recruitment of additional health care workers. There is increased disease surveillance, a role that the National Public Health Institute of Zambia is ably performing.

Notwithstanding the enormous investment from both domestic and international donor support, the sector still faces several challenges including inadequate human resources especially in the rural areas, high maternal mortality, HIV prevalence is still in double digits, high rates of under nutrition especially in children and resurgence of malaria cases and leprosy in some districts and provinces.

1.6.2 Key Health sector achievements:

Maternal mortality rate has decreased to 278 deaths per 100,000 live births compared to 398 deaths per 100,000 live births in 2015[7]. Infant mortality rate stands at 42 deaths per 1,000 live births, down from 45 deaths per 1, 000 live births in 2015. Under-five mortality rate is 35 deaths per 1,000 live births down from 75 deaths per 1,000 live births in 2015. There was a downward shift in the HIV prevalence to 11.3% from 13.3% in 2015. There has been an upward shift in the Malaria Incidence (per 1000 population at risk) currently stands at 427 up from 394 in 2015.

1.6.3 The National Health Strategic Plan 2017-2021

The National Heath Strategic Plan (NHSP) 2017 to 2021 provided guidance on all health interventions in Zambia. It places emphasis on health systems strengthening and service delivery through primary health care services. Key indicators were set to monitor progress towards achieving the goals of the NHSP.

Table 1.1: Zambia: NHSP 2017-2021 Key Performance Indicators

Indicator	*Baseline (2015)*	*NHSP Targets (2021)*	*Results (2020)*	*Data Source*
Under 5 Mortality Rate (per 1,000 live births)	*75*	*35*	*61*	*ZDHS*
Infant Mortality Rate (per 1,000 live births)	*45*	*15*	*42*	*ZDHS*
Maternal Mortality Ratio (per 1,000 live births)	*398*	*100*	*278*	*ZDHS*
HIV prevalence (15-49 yrs. old)	*13.3%*	*5%*	*11.3%*	*ZDHS*
Malaria Incidence (per 1000 population at risk)	*394*	*0*	*427*	*HMIS*

[6] UNCTAD Research Paper No. 63 UNCTAD/SER.RP/2021/6
[7] Zambia Demographic Health Survey 2013/2014

1.6.4 Health governance

In Zambia, health service delivery is governed by the Ministry of Health (MoH). The governance structure follows the political administrative structure that extends to provinces and districts. The MoH is mandated to formulate national policies, strategies, and standards. The governance consists of an institutional framework that coordinates various levels and provides stewardship in health sector programs and initiatives.

Semi-autonomous agencies report to the Ministry of Health and are mandated for certain technical and regulatory tasks. These include Zambia Medicines and Medical Supplies Agency (ZAMMSA), Zambia Medicine Regulatory Authority (ZAMRA), Zambia National Public Health Institute (ZNPHI), National Health Research Authority (NHRA). Some of the agencies have their structures extended to provinces. Regulating, licensing and re-licensing of healthcare services and health professionals are done by Health Professional Council of Zambia (HPCZ). Additionally, the Ministry of Home Affairs is responsible for birth and death registration.

The National Tuberculosis and Leprosy Programme (NTLP) is under the Department of Public Health and Research of the MOH, with similar structure at provincial level and focal persons down to district health offices and health facilities levels. The End TB Strategy recommends a multi-sectoral accountability framework (MAF) for collaboration and accountability beyond the health sector, involving the Government and non-governmental stakeholders within the SDG framework as tool to accelerate TB response towards TB Elimination by 2030.

1.6.5 Health services delivery

Most of the health services are provided by the public sector. The delivery of government services is organized at three broad levels of care: tertiary level, comprising tertiary teaching hospitals; secondary level, comprising provincial/general hospitals and district hospitals; and the primary level, consisting of health centres and health posts. Faith based organizations and private sector also provide health care in Zambia. Private sector providers are mostly concentrated in urban centres. These are often hospital or clinics, similar occurrence for the private pharmacies or drug stores. Table 1. 2 below shows the distribution of heath care services by type and by provider.

Table 1.2: Distribution of Health Services[8]

Health Facilities, by Type / Level of Care	***Total***	***Percentage of Facilities***
Health Posts	*973*	*33%*
Rural Health Centres	*1,165*	*39%*
Urban Health Centres	*676*	*23%*
Level 1 Hospitals	*98*	*3%*
Level 2 Hospitals	*34*	*<1%*
Level 3 Hospitals	*10*	*<1%*
Total	***2,956***	***100%***
Health Facilities, by Provider / Ownership		
MoH / GRZ	*2,344*	*79%*
Mission	*69*	*2%*
Private	*543*	*18%*
Total	***2,956***	***100%***

NB: Private sector includes (for profit) private clinics, hospitals, pharmacies, and drug stores

Further, service delivery has been defined to follow a Primary Health Care (PHC) approach. The definition of PHC in Zambia is action-oriented, focused on promotive, preventive, curative, rehabilitative, and palliative care efforts within and outside the health sector. In a Zambian context, PHC does not merely mean 'accessibility to health services' but also peoples' participation in improving their quality of life and gaining power to master their affairs for health improvements. The PHC approach is, therefore, expected to address the main health problems in the community. In doing so, particular attention will be given to people in rural and peri-urban areas, the underserved, high-risk, and vulnerable groups, such as women, children, and the youth[9].

1.6.6 Human Resources for Health

Increasing the health workforce remains a priority for the Ministry of Health of Zambia. The total health workforce requirements in the country as per established positions at the end of 2019 was 126,389, filled positions were 60,332 (leaving a gap of 52%).

Although there has been a substantial increase in numbers of staff deployed at health centres and hospitals over the past years, these are still inadequate for the effective delivery of the minimum health care package[10]. This is further compounded by the unequal distribution and inappropriate skills-mix. Rural areas continue to face relatively more severe human resource shortages due to challenges in retention. The additional 11, 200 health care workers budgeted in the 2022 National budget will address the human resource gap in the health sector. Further, the low population densities of the country pose a serious challenge to the optimal distribution and utilization of health workers.

[8] MoH, HMIS Quarter 4 2021 Report
[9] Zambia National Health Strategic Plan 2017-2021; https://www.moh.gov.zm
[10] National Human Resources for Health Strategic Plan (2018 – 2024); https://www.moh.gov.zm

Table 1.3: Number of Health Workers stratified by cadre

SN	Health Cadre	Number
1	*Medical doctors*	*2,555*
2	*Clinical officers*	*3,318*
3	*Nurses*	*20,957*
4	*Laboratory personnel*	*2,445*
5	*Pharmacy personnel*	*1,569*
6	*Radiology personnel*	*771*
7	*Community Health Assistants*	*1,366*
	Total health workforce	***32,981***

Source: MoH Data Quarter 4 2021

1.7 National Health Sector Policy and Strategies

The National Health Policy sets out the guidelines for directing the implementation of national health strategies. The health policy is anchored in the devolution of functions to the lower, district level.

The overall National Decentralization Policy provides the framework with which the sector policy operates; it specifies devolution of functions and authorities with matching resources to local authority levels. Under the devolved governance system, the central level is expected to provide policy, strategic guidelines, overall coordination, and M&E. The local devolved units are in turn expected to concentrate on programme implementation.

The health policy, which was revised in 2012, provides overall guidance to the sector. The policy emphasizes the importance of decentralization, which is expected to ensure effective participation of communities and hence assure relevance of interventions. The district forms the basic point of reference for the articulation of peoples' power in health care. Through district health management teams, popular representation and technical/professional interests will provide an opportunity to give Zambia a health care system that is responsive to local and national interests and needs. While recognizing the importance of bottom-up planning in the sector, the policy also recognizes the importance of provincial and central level actors in providing technical guidance to the district and other local levels of service delivery.

In 2017, Zambia launched its first National Health in All Policies (HiAP) implementation framework for Zambia. The HiAP is intended to promote multi-sectoral actions to address Social Determinants of Health (SDH) and to accelerate achievement of the Sustainable Development Goal (SDG) 3 aspires to ensure health and well-being for all, including a bold commitment to end the epidemics of AIDS, tuberculosis, malaria, and other communicable diseases by 2030. It also aims to achieve universal health coverage and provide access to safe and effective medicines and vaccines for all[11]. This NSP is aligned to the National Health Sector Strategic Plan (NHSP) (2022-2026) that set the goal to end TB by 2030.

[11] Jointsdgfund.org/sustainable-development-goals/goal-3-good-health-and-well-being#

Table 1.4: TB indicators in the NHSP (2022-2026)

INDICATORS	***Baseline***	***Target***				
	2021	***2022***	***2023***	***2024***	***2025***	***2026***
1. TB case detection rate (treatment coverage) for drug sensitive TB	*68%*	*83%*	*87%*	*89%*	*89%%*	*86%*
2. TB Incidence/100,000 population	*319*	*294*	*269*	*244*	*219*	*160*
3. TB treatment success rate for drug sensitive TB	*89%*	*91%*	*92%*	*93%*	*94%*	*95%*
4. TB treatment success rate for drug resistant TB	*78%*	*80%*	*82%*	*84%*	*84%*	*86%*
5. Proportion of Leprosy Patients with grade 2 disability	*70%*	*60%*	*50%*	*35%*	*20%*	*10%*

Key policies also include:

National Health Insurance Scheme Act, 2018: An act to provide for sound financing for the national health system and universal access to quality insured health care services.

National Health Research Authority Act, 2013: An act that provides a regulatory framework for the development, regulation, financing, and coordination of health research and ensures the development of consistent health research standards and guidelines for ethically sound health research.

National Public Health Institute (NPHI) Act, 2020: An Act to provide for the coordination of public health security; continue the existence of the Zambia National Public Health Institute and provide for its functions. Furthermore, it establishes the Public Health Emergency Operations Centre, the National Public Health Laboratory, and the National Public Health Emergency Fund.

Zambia Medicines and Medical Supplies Agency (ZAMMSA) Act, 2019: An Act to provide for an efficient and cost-effective system for the procurement, storage and distribution of medicines and medical supplies.

The Medicines and Allied Substances Act (3) 2013: The National Medicines Policy, and the Public Health Act Zambia provide the policy and regulatory framework for the pharmaceutical sub-sector; traditional and herbal medicines are not effectively covered. The framework allows coordinated selection, forecasting and quantification, procurement, storage and distribution, rational use, quality control, and regulation of medicines and medical supplies.

1.7.1 Health financing

Zambia is implementing its first Health Financing Strategy (2017 – 2027) that supports the health sector's National Health Strategic Plan (NHSP) and the National Vision 2030 which expresses the Zambian people's aspiration to become a prosperous middle-income nation by 2030. The Healthcare Financing Strategy is premised on the guiding principles of equity, efficiency, transparency, accountability, effective partnerships, and evidence-based decision making. The plan envisions a country where all Zambians have access to sustainably financed quality healthcare without facing the risks of catastrophic health expenditure or impoverishment because of paying for healthcare services. The overall goal of the HFS is to

attain adequate, sustainable, equitable, and predictable financing through existing and new sources for improved health outcomes. HFS will achieve the goal through the following objectives:

i. Provide viable options for increased resource mobilization and strengthen revenue collection
ii. Enhance efficiency in resource allocation and utilization
iii. Improve the risk pooling and redistributive capacity of funds
iv. Strengthen the strategic purchasing mechanism
v. Strengthen overall public financial management (PFM) and information systems within the health sector.

The government of the Republic of Zambia (GRZ) has shown commitment to health as demonstrated through a growing health budget in absolute terms and in per capita terms. The Government allocation to the health sector in nominal terms has been increasing even though the share of the health sector budget to national budget has been decreasing. The 2020 Budget allocates K9.4 billion (8.8 percent of the national budget) to the health sector, representing a 16% nominal increase from the K 8.1 billion allocated in 2019. Overall, as a proportion of the national budget, the health sector budget has reduced from 9.3% to 8.8%, falling short of the NHSP target and significantly short of the 15% Abuja Declaration target.

In 2019, GRZ inaugurated the National Health Insurance Scheme (NHIS) which covers out and in-patient services in internal medicine, surgery, maternal and child health services. Additional financial resources to the health sector are through donor support. There is a stable number of Cooperating Partners' (CPs) that are committing funds and technical assistance to the health sector. About one-fifths of the public health budget in 2021 was funded from external sources.

1.7.2 Regulatory systems

The health strategy is closely linked to the Zambian Constitution, which is the supreme law of the land. The Constitution guarantees the right to life and right to health. It also guarantees other fundamental human, social, and economic rights to the population, which have direct and/or indirect impacts on health.

The MOH has delegated regulatory functions to public statutory bodies, such as the Health Professionals council of Zambia (HPCZ), General Nursing Council (GNC), National Radiation Protection Authority, and National Food and Nutrition Commission (NFNC). Other statutory bodies include Zambia National Blood Transfusion Services (ZNBT), National AIDS Council (NAC), Zambia Medical and Medical Supplies Authority (ZAMMSA), and the Tropical Disease Research Centre (TDRC).

TB is a notifiable disease in Zambia (Public Health Act, of 1995) therefore all care providers are mandated to report all diagnosed TB cases to the Ministry of Health through the District Director of Health.

1.7.3 Gender considerations in Zambian healthcare

The National TB and Leprosy programme (NTLP) implements gender-sensitive and responsive policies, emphasizing disaggregating TB notifications data by gender and age. The Routine programme data show that more men are diagnosed with TB than women. The situation is the same in children where more boys than girls are diagnosed with TB. In 2020, 65% of TB patients notified were men, while women constituted 35%. A nationwide TB mortality study conducted in 2021 found no statistically significant difference in mortality between males and females (9.3% vs 9.5%). However, the programme is not systematically collecting and reporting gender-disaggregated data at all stages of the TB care cascade. Further, there has not been a study to fully understand how gender impacts TB vulnerability, care access and care provision.

1.7.4 Laboratory services

TB laboratory services in Zambia are co-managed through the National Reference Laboratory, the NTLP and the laboratory services unit in the Ministry of Health. The TB diagnostic laboratory network is organized in a tiered structure with one National TB Reference Laboratory (NTRL) located in Lusaka, two regional TB specialized laboratories namely the University Teaching Hospital TB laboratory (UTH), located in Lusaka, and the Tropical Diseases Research Centre (TDRC) in Ndola, Copper belt province, and finally facility level laboratories. The NTRL and the two specialized laboratories perform TB culture services and supervise provincial level laboratories with each province linked to one of these laboratories. Provincial laboratories supervise district laboratories while district level laboratories supervise the health centre laboratories.

All three culture laboratories use liquid media (MGIT) and solid media (Lowenstein-Jensen) and provide first line and second line DST via Line Probe Assay (LPA) and phenotypic drug susceptibility testing. Although there has been steady progress towards expanding access to GeneXpert testing services for rapid detection of TB and drug resistance, only 45% of the population has access to Xpert testing services within a 5km walking distance, 75 % within a 35km driving distance while 25% of the population have no access within a walking or driving distance because accessing services beyond 35km it is the same as having no access. Courier services are available to refer specimens to GeneXpert testing sites, but coverage is suboptimal.

Table 1.5: Distribution of TB laboratory services by province

Province	*Number of health facilities*	*Number laboratories*	*Number TB diagnostic facilities*	*Number diagnostic facilities with Xpert*	*Number diagnostic facilities with TB LAMP*	*Number of diagnostic facilities with FM Microscopy only*	*Number of diagnostic facilities with ZN Microscopy only*
Central	*319*	*59*	*46*	*29*	*2*	*13*	*2*
Copperbelt	*385*	*109*	*91*	*46*	*2*	*34*	*9*
Eastern	*353*	*63*	*54*	*27*	*1*	*26*	*0*
Luapula	*259*	*43*	*33*	*17*	*2*	*14*	*0*
Lusaka	*291*	*105*	*63*	*42*	*4*	*13*	*4*
Muchinga	*152*	*25*	*25*	*14*	*1*	*10*	*0*
Northern	*288*	*56*	*56*	*16*	*1*	*39*	*0*
North-Western	*273*	*36*	*36*	*22*	*1*	*13*	*0*
Southern	*391*	*61*	*61*	*31*	*1*	*29*	*0*
Western	*325*	*102*	*94*	*18*	*2*	*31*	*43*
Total	***3,036***	***659***	***559***	***262***	***17***	***222***	***58***

1.7.5 Radiology services

In Zambia, medical imaging services such as film x-ray, contrast-aided imaging and ultrasound, magnetic resonance imaging, CT, nuclear medicine, and interventional imaging are currently available in some health facilities especially in third and second level hospitals. In facilities where x-ray services are available there is cost sharing fees. Patients including those presumed to have TB who are registered with the National Health Insurance Scheme (NHIMA), x-ray costs are covered under this plan. This is complemented by mobile facilities that offer x-ray and ultrasound. There are 99 first-level, 34 second level, and eight third-level hospitals offering Imaging services and equipped with various imaging equipment. In 2021 there were 53 functional analogue x-ray machines and 13 digital X-ray machines, of which 7 were mobile X-ray machines.

Although the country has made efforts to strengthen imaging services, the provision of services at the facility level has not improved.

Furthermore, critical positions for radiographers, radiologists, sonographers, and medical physicists do not exist in 80% of imaging facilities. This was acknowledged in the National Health Strategic Plan of 2017-2021 as a hindrance to the provision of quality healthcare services and in ensuring universal health coverage in Zambia.

1.7.6 Health Management Information Systems (HMIS)

The HMIS has evolved since its establishment in 1996, integrating other reporting systems such as TB surveillance and enhancing coverage beyond Primary Health care facilities, to include secondary and tertiary hospitals. Currently, reporting of TB cases from, public health

facilities and some private, is done through the HMIS using paper-based systems to capture data on disease morbidity and mortality, maternal and child health services, infectious diseases interventions and availability of essential commodities that are critical for planning, programme design and policy formulation among other uses. Services provided by health facilities are recorded in registers daily, summarized on a tally and/or activity sheets and aggregated weekly, monthly, or quarterly on various reporting forms; then they are submitted for entry into the web based DHIS2 at district level. Additionally, HMIS has incorporated electronic patient-based systems such as Smart Care (mostly for the HIV programme and is in progress of scale up case based electronic system for DR-TB patients called YATHU to enhance efficiency and data use for decision making.

Further, service and disease related data reported by facilities on a monthly and/or quarterly basis is entered into the web based DHIS2 system for storage, analysis, and presentation of key performance indicators critical to measuring the performance of the health sector. To ensure that one M&E system is enhanced, the TB reporting system has been incorporated into HMIS for accountability, transparency, and data utilization at all levels of care. Currently, the TB reporting system sits on the DHIS2 platform; and the MoH is working towards enhancing interoperability of systems such as DataToCare and DISA to record TB diagnostics, and prompt efficient communication of results between the health facility and clients.

Additional components of HMIS in Zambia include the Community HMIS, Hospital HMIS and the Disease Surveillance module to track progress at different levels of care. However, there has been limited coverage and underutilization of the HMIS in respect to timeliness, completeness of reports, data usage, and accessibility. The TB diagnostic network is currently implementing two information management systems namely DISA and DataToCare with a view to transition fully to DISA.

1.7.7 Pharmaceuticals supplies

Zambia Medicines and Medical Supplies Agency (ZAMMSA) is the forerunner of Medical Stores Limited (MSL). The Zambia Medicines and Medical Supplies Agency Act Number 9 of 2019 transitioned Medical Stores Limited to the Zambia Medicines and Medical Supplies Agency.

ZAMMSA is mandated to provide an efficient and cost-effective system for the procurement, storage and distribution of medicines and medical supplies. The supply chain includes distribution of health commodities to all hospitals and health centres down to the last mile, procurement of essential medicines and medical supplies, and the coordination of commodity quantification activities. With increased volumes of orders, distribution of drugs and medical supplies is being implemented through regional hubs strategically located in some provinces.

A key intervention in enhancing supply chain performance has been the implementation, scale-up and maintenance of the Electronic Logistics Management Information System (eLMIS). To date, the eLMIS Central Edition (CE) is rolled out to all Provincial, District Health Offices and nearly 300 health facilities. Facility Edition (FE) is deployed to a total of 644 sites is the high-volume sites accounting for 83% of ART patients countrywide.

The eLMIS is used for logistics management of drugs and supplies including essential medicines, medical and surgical supplies, Reproductive Health and COVID commodities, ARVs, HIV test kits and Lab commodities. This system captures and reports consumption data, stock on hand and losses/adjustments which informs resupply and national forecasting and quantification.

SECTION TWO: TUBERCULOSIS AND LEPROSY BACKGROUND AND EPIDEMIOLOGY

2.1 Background

The Zambia National TB Programme was established in 1964 as a programme within the Ministry of Health. The TB programme functioned as a stand-alone until 1980, when it was linked with the Leprosy Control Programme to form the National Tuberculosis and Leprosy Programme (NTLP). Under this structural arrangement, TB/leprosy officers were appointed at the Central Unit as well as at the provincial and district levels, with the higher levels providing technical support and supervision for the lower levels, and case finding, diagnosis, and treatment occurring at the health facility and community levels. The National HIV/AIDS/STI/TB and Leprosy Council was formed in 1993 as part of the health sector reform process and to address the dual epidemics of HIV and TB. Full integration at the primary health care level, with abolition of the TB/leprosy positions at district and provincial levels in 1997, resulted in a situation where the lack of a clear system for reporting case notifications and treatment outcomes led to loss of national-level data on TB for 1997 and 1998.

In 1999, a National TB Working Group was constituted by the MOH to provide technical assistance through the Central Board of Health (CBoH) to strengthen the decentralized TB control activities. Following strengthening of the Central TB Unit in 2003, the TB Working Group transitioned to an advisory body to the National AIDS/STI/TB Council (NAC) in all matters pertaining to prevention and control of TB/leprosy. In 2011 the NTLP moved to the Ministry of Community Development and Child Health and later came back to the Ministry of Health in 2016.

The NTLP derives its policies from the Ministry of Health guiding documents that include the National Health Strategic Plan (NHSP). The implementation of all TB services follows the international normative guidance as such current TB practices follow the principles and pillars of the Global End TB Strategy.

2.2 Structure of the NTLP

The NTLP falls under the Department of Public Health and Research of the MOH and is responsible for the overall oversight and coordination of TB and leprosy activities in the country. The NTLP is organized in five layers namely: national, provincial, district, health facility and community. The Central Unit establishment consists of a Programme Manager and additional programme officers. Four Advisors (Senior TB and Global Fund Grant Advisor, Laboratory Advisor, DR-TB Advisor and M&E Advisor) are seconded to the programme with support from the USAID. Additional staff are allocated to the NTLP through a Cooperating Agreement between the MOH and the US Centres for Disease Control and Prevention (CDC) and through the World Bank supported Southern Africa TB Health System Support (SATBHSS) Project.

At the provincial level, the TB programme reports to the Provincial Health Director through the Public Health Specialist. At the district level, TB is managed and coordinated by a district TB/Leprosy coordinator who falls under the District Health Director. At the health facility level, TB patients are seen within the general health clinic, usually at a designated TB clinic or

chest clinic, and managed by health staff who tend to rotate through the different departments of the health facility. In the community, the treatment provision, TB information and awareness raising, and treatment and adherence support is implemented through a network of non-governmental organizations (NGOs), community-based organizations (CBOs) and community-based volunteers. Where available, community volunteers provide links between the TB programme and the community and provide treatment support for TB patients as well as follow-up of TB patients and household and close contacts to varying extents. Support for the community health volunteers varies across the country and is often dependent on funds from partners/donors to pay stipend.

2.3 Financing of NTLP activities

The NTLP is funded through domestic funding and international donor support. The Global Fund, USAID and PEPFAR have been the major international funders of the programme over the last two decades.

The resource need has increased from US$ 15 million in 2017 to US$ 38 million in 2021. While the domestic and international funding increased, there is still a resource gap. In 2021, the $38 million resource need was funded through domestic financing (31%) and international funding (52%), leaving a gap of 17%. With donor funding expected to reduce over time, domestic funding will be critical in covering the funding gap. The National Health Insurance Management Authority (NHIMA) is a potential source of funding that will increase domestic financing for the TB response.

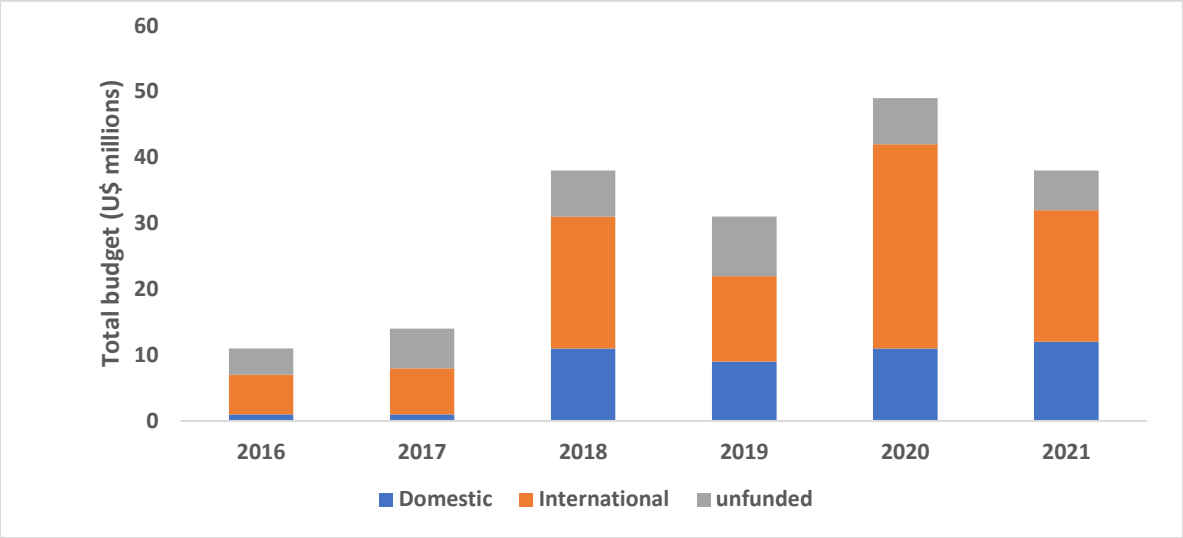

Figure 2.1: TB financing (2016-2021)

2.4 Risks factors for Tuberculosis

Social and economic development and health-related risk factors influence the TB epidemic in Zambia. These risk factors include under nutrition, diabetes, HIV infection, alcohol use disorders and smoking. In 2020, an estimated 23,000 incident cases of TB were attributable to HIV, of whom 65% were notified. The NTLP needs to collaborate with state actors (within the health sector and outside the health sector) and non-state actors to address social determinants

of health that affect the TB epidemiology in the country to synergize core interventions to address these risk factors. Table 2.1 summaries the prevalence rates of these risk factors.

Table 2.1: Status of selected risk factors for TB in Zambia

Risk Factors	***Total value***	***Female***	***Male***
HIV Prevalence (% population aged >15 years)	*11%*	*13%*	*8%*
Smoking prevalence (%population aged >15years)	*27%*	*3%*	*24%*
Diabetes prevalence (% population aged >18 years)	*12.2%*	*6.7%*	*6.5%*
Alcohol use disorders (12 months prevalence (% population aged >15years)	*11*	*1.2*	*9.8*

Source: Global TB report 2021

2.5 Tuberculosis Epidemiology

TB continues to rank among the major causes of morbidity and is one of the top ten causes of mortality in Zambia. Zambia is ranked 21st among the 30 high TB burden countries. (WHO Global TB report, 2021). In 2021, the WHO classified Zambia as one of the High MDR-TB countries in the World.

2.5.1 The level of, and trends in, TB mortality, prevalence, and incidence

TB Prevalence:

The first national prevalence survey in 2013-2014 estimated TB prevalence for all forms to be 455 /100,000 population for all age groups. The estimated adult prevalence of smear, culture and bacteriologically confirmed TB was 319/100,000 (232-406/100,000); 568/100,000 (440-697/100,000); and 638/100,000 (502- 774/100,000) population, respectively. In the life of this NSP a second National TB Prevalence Survey is proposed.

TB Mortality: The overall TB mortality in Zambia dropped to 81/100,000 in 2020 from 115/100,000 in 2015 representing a 30% reduction. This reduction is still low to reach the 2030 mortality reduction goal of 90%. Even though Zambia did not meet the 2020 milestones of the End TB strategy i.e., reduction in TB mortality rate by 35% compared to 2015, the country performance was higher (30%) than the Global achievement of 9.2% for the same period.

A major concern is TB mortality rate in the HIV negative TB patients which has remained the same at around 30/100,000 population from 2000 to 2018 and started to increase in 2019 and 2020. The estimated mortality among HIV-positive TB patients has been declining steadily from 192 per 100 000 population in 2000, to 86/100,000 in 2015 and further dropped to 50 per 100,000 population in 2020. High coverage of ART and high rates of viral suppression and lately high TPT initiation and completion rate have contributed to the rapid decrease in TB mortality rate.

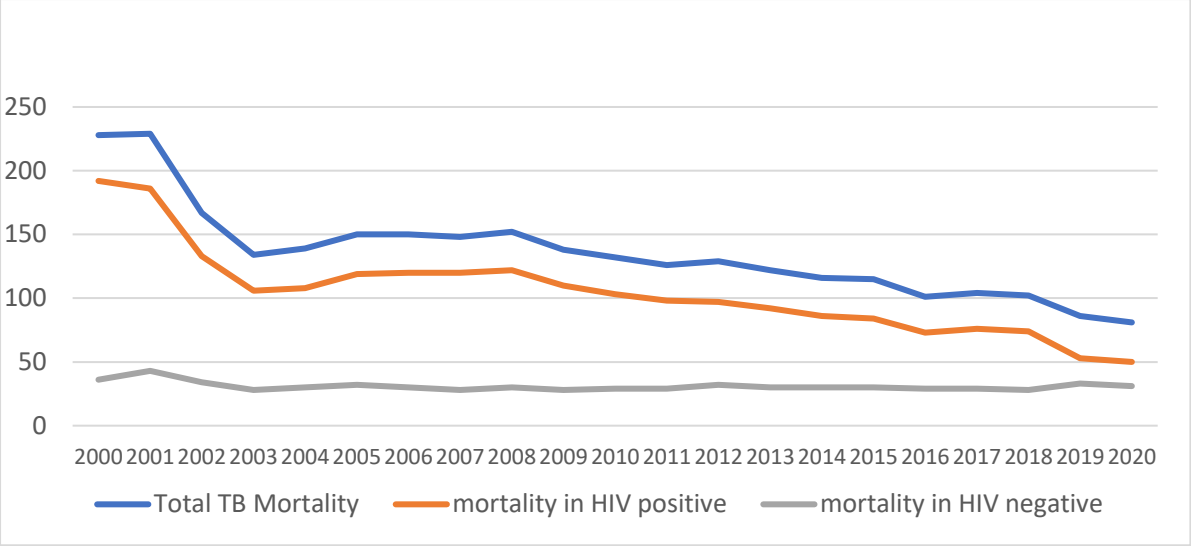

Figure 2.2: Estimated TB mortality rate per 100 000 populations between 2000 and 2020,

TB Incidence: The estimated number of incident TB cases in 2020 was 59,000, equivalent to a rate of 319 per 100,000 populations. TB incidence has decreased since 2000 i.e., by 58% in the last 20 years (2000 – 2020). The decrease between 2015 and 2020 was by 18%, while the global TB incidence rate decreased by 11% for the same period. The gap between estimated incident cases and notified cases remained the same between 2005 and 2018 and started narrowing in 2019 and 2020.

This gap can be explained by three broad factors: under notification (number of patients diagnosed with TB but not registered in facility treatment register), under-reporting of diagnosed TB cases (number of TB patients registered in health facility treatment register but not reported to the national level) and under-diagnosis of people with TB. The country wide data quality audit revealed that in 2019 about 33% of diagnosed TB patients were not notified and of those who were notified 17% were not reported to the national level.

Total incidence and incidence among HIV positive TB patients have been declining since 2000, however, the incidence among HIV negative TB patients have remained the same since 2000 and even started increasing from 2018 and for the first time in 2020 the incidence rate among HIV negative was more than the rate among HIV positive TB patients (see figures table 2.3 and 2.4).

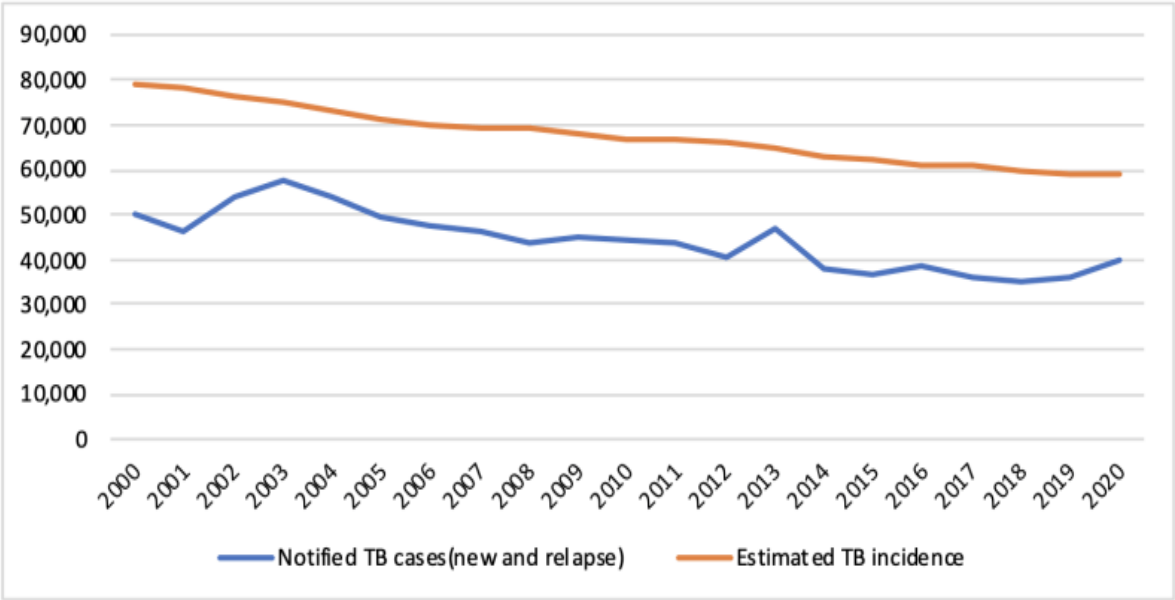

Figure 2.3: Estimated incidence of TB in Zambia, and actual notifications, from 2000-2020

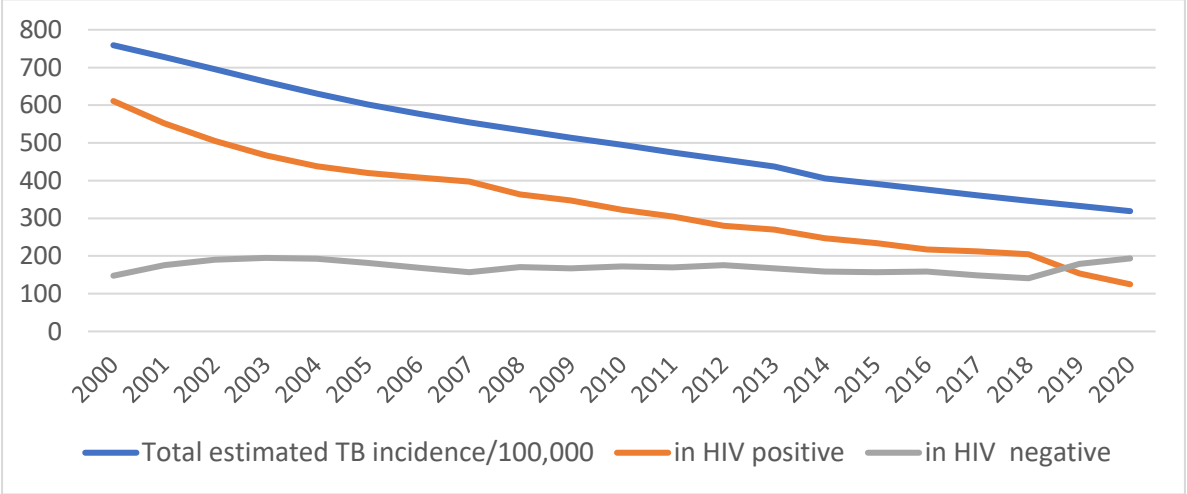

Figure 2.4: Total estimated TB incidence, in HIV positive and in HIV negative TB cases (2000-2020)

2.5.2 TB Notification

2.5.2.1 TB case notifications and time trends

Zambia registered the highest TB notification in 2003 i.e., 57,601 (new and relapse) cases. From 2004 TB notifications started declining, reaching the lowest in 2018 i.e., 35,071 (new and relapse) cases. The cases started to increase in 2019 and despite the COVID 19 pandemic the number of cases rose to 40,000 and 50,075 (new and relapse) cases in 2020 and 2021 respectively.

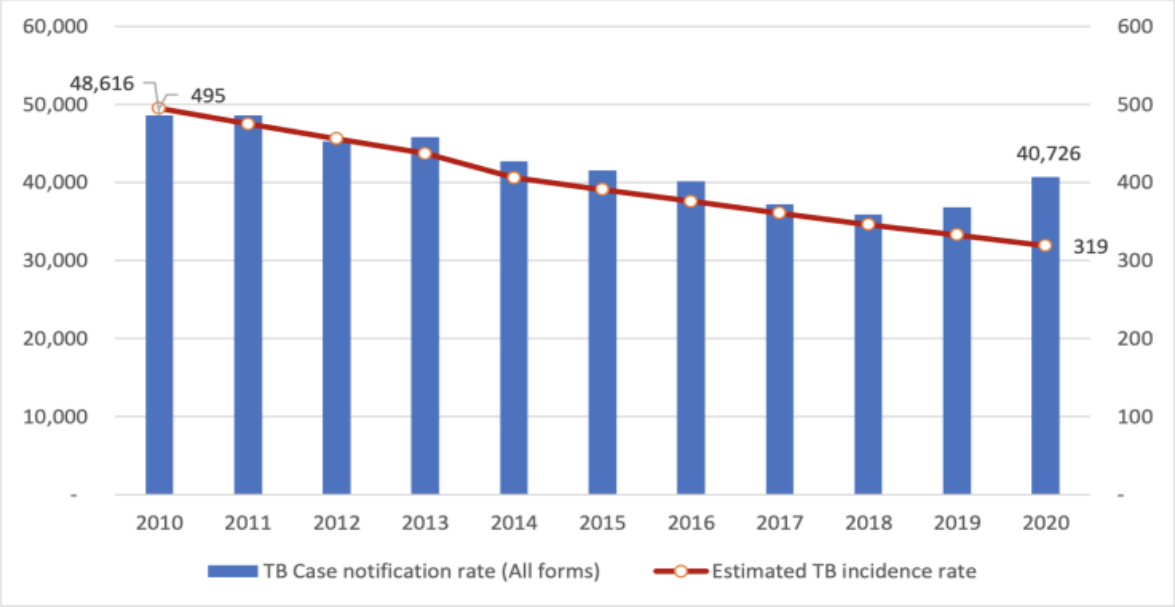

Figure 2.5: Trends of total notification (all forms) TB cases and incidence rate from 2010–2020, Zambia

2.5.2.2 Trends in TB notifications by type of diagnosis

There has been an increase in bacteriologically confirmed TB rates since 2014 following the implementation of GeneXpert MTB/Rif. Clinically diagnosed among pulmonary TB rates decreased between 2012 and 2015, in 2016 the percentage of clinically diagnosed and bacteriologically confirmed cases were equal at 50%. Whereas between 2017 and 2020 the rates of bacteriologically confirmed TB patients were higher than clinically diagnosed. The country registered the highest percentage of bacteriologically confirmed cases in 2018 reaching 56% and declining to 51% in 2020. The sum of total bacteriologically confirmed TB cases increased from 12,311 in 2015 to reach 18,768 in 2020. The extra pulmonary TB cases have decreased substantially, apparently at a faster rate in recent years i.e., from 13.2% in 2018 to 11% in 2019 and 8% in 2020, which might be due to the uptake of GeneXpert and reduction of percent of TB patients with known HIV status who were HIV positive, which has reduced from 60% in 2015 to 39% in 2020. The decline in extra pulmonary TB cases may also be due to adherence to the WHO definition that states that when an extra pulmonary TB patient also have pulmonary TB, the case is classified as pulmonary TB. Operation research is needed to fully determine the reasons for a sharp decline in rates of EPTB.

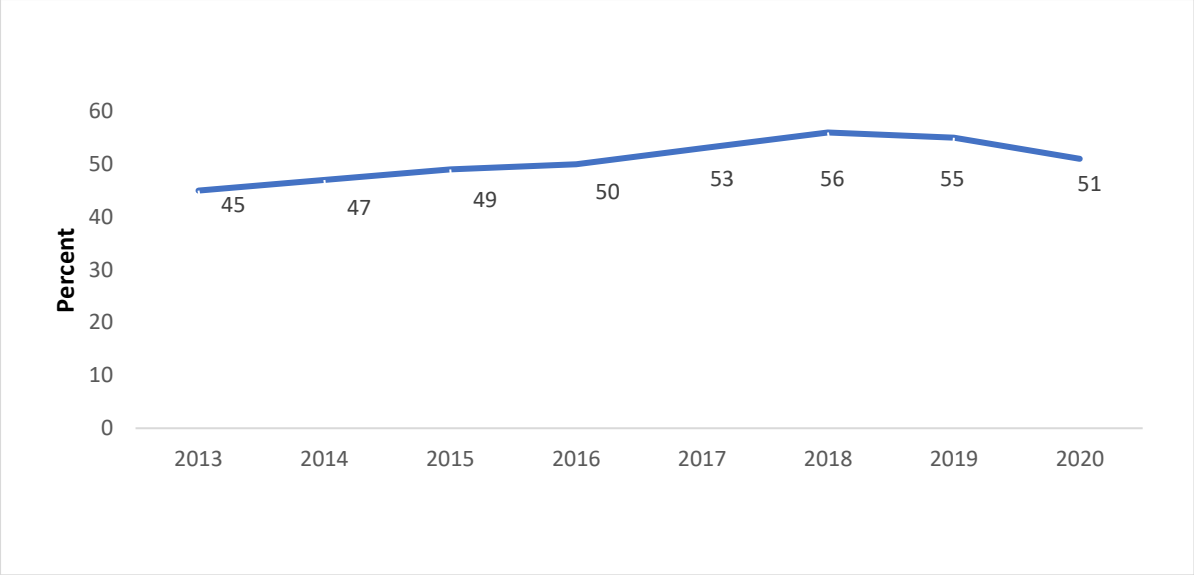

Figure 2.6: Trends in the percentage of pulmonary bacteriologically confirmed TB cases

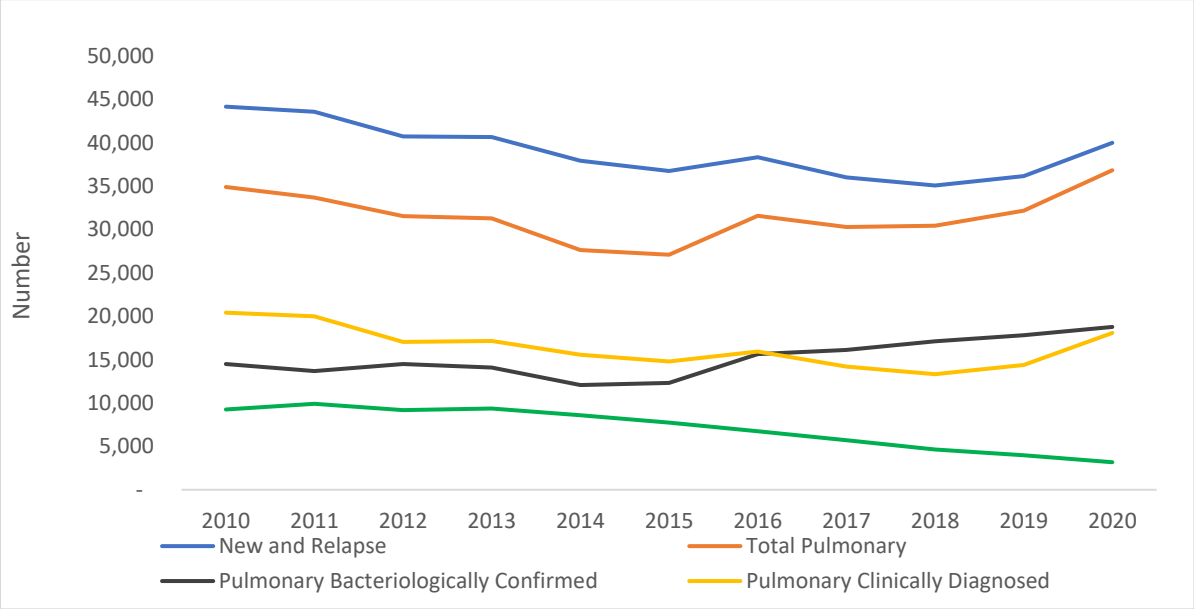

Figure 2.7: Trends in notification of new and relapse TB cases by type of diagnosis from 2010–2020

2.5.2.3 Trends in TB notifications by geographical area

The distribution of TB notifications in the country up to 2019 shows a clear pattern, with the highest notification rates in Lusaka province where the capital city of Zambia is situated and Copperbelt that holds most mines. The notification rates of these provinces were above the national average. Combined, Lusaka and Copperbelt accounted for 60% of the new TB cases notified in 2018 lower than 77% estimated burden in the 2013-2014 TB prevalence survey. In 2020, Lusaka and Copperbelt provinces accounted for 57% of all TB cases notified. Other provinces had notification rates lower than the national average with Eastern and Muchinga provinces registering the lowest rates. The variation is likely to be true to differences in TB burden across provinces; it's also consistent with HIV burden except for Western province.

Western province has the highest HIV prevalence, but the TB notification rate is ranked 3rd in the country.

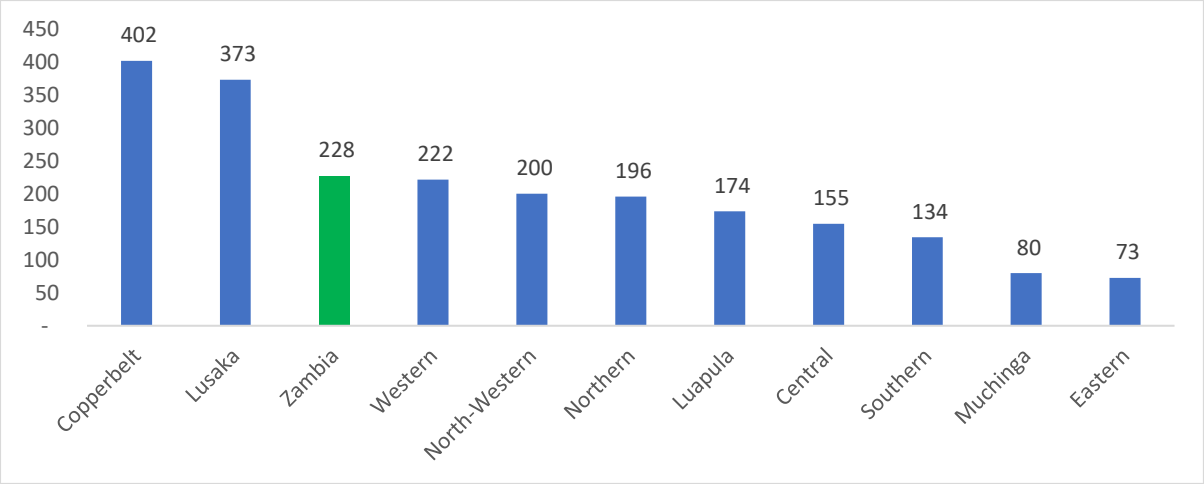

Figure 2.8: TB notification rates by province 2020

2.5.2.4 TB notifications and time trends by age and gender

Age specific TB notifications declined at different paces with the fastest decline observed in the 25-34 and 35-44 age groups. A slightly steeper decline was also observed among ages 15-24 between 2016 and 2020 as compared to the previous years. The notification declined in the elderly age group (aged > 65years) and increased after 2016. The reason for the increase is unclear. TB rates among children have been consistently low in the last decade, with an increasing trend specifically among 0–4-years old.

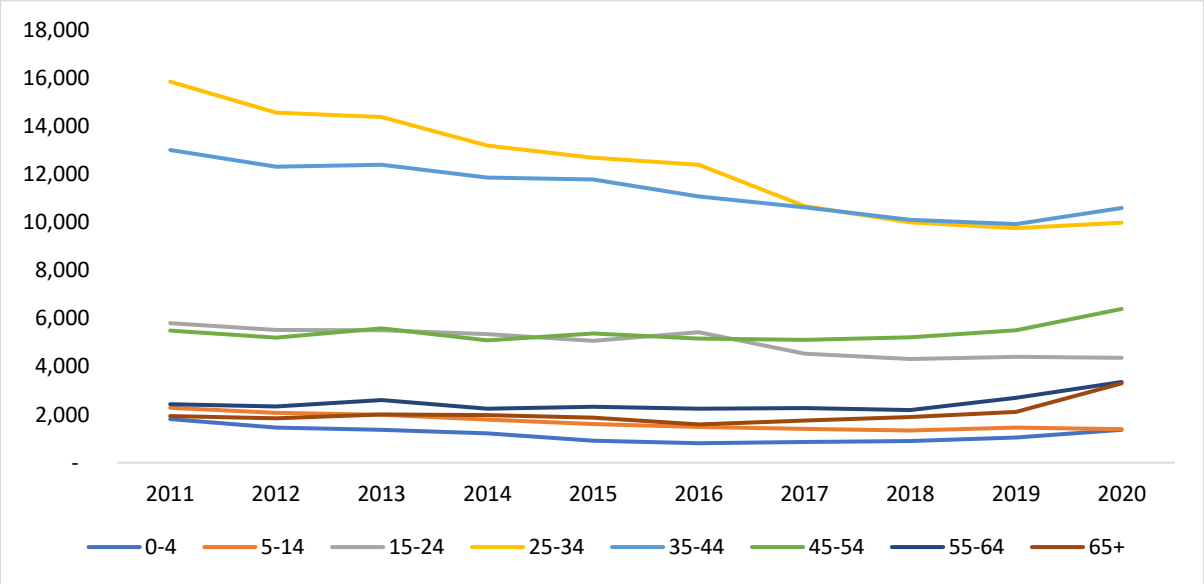

Figure 2.9: Trends in TB notification by age group between 2011 and 2020, Zambia (Revise 0-4 age to 5-14)

In Zambia, the highest TB rates are seen in persons 35-44 years old for both males and female, followed by those aged 45-54 years (fig 10). Absolute numbers were higher among males than among females, in all age groups. The age group distribution shows TB cases among middle age (35 -54) are more frequent than among younger age groups.

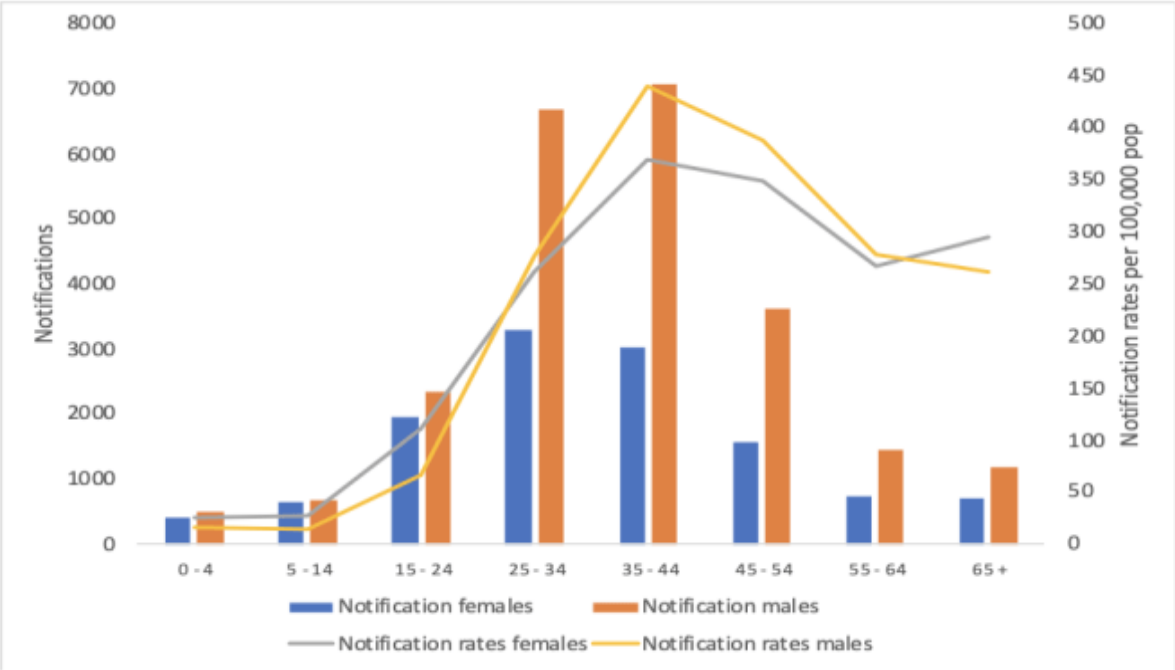

Figure 2.10: Notifications rates by sex and age, Zambia 2019 (Source: Epi review (2020))

2.5.2.5 Childhood TB notification

There has been an increase in the number of TB cases in children aged 0-4 between 2015 and 2020 by 67% suggesting an improvement in the diagnosis of childhood TB cases in this age group. Despite the increase in 0-4 yrs. age group, TB notification among children (0-14 years old) in Zambia is still below the WHO recommended expected benchmark of 10-15 percent among all forms of TB. The overall proportion of childhood TB cases for all forms was 6.8% in 2020.

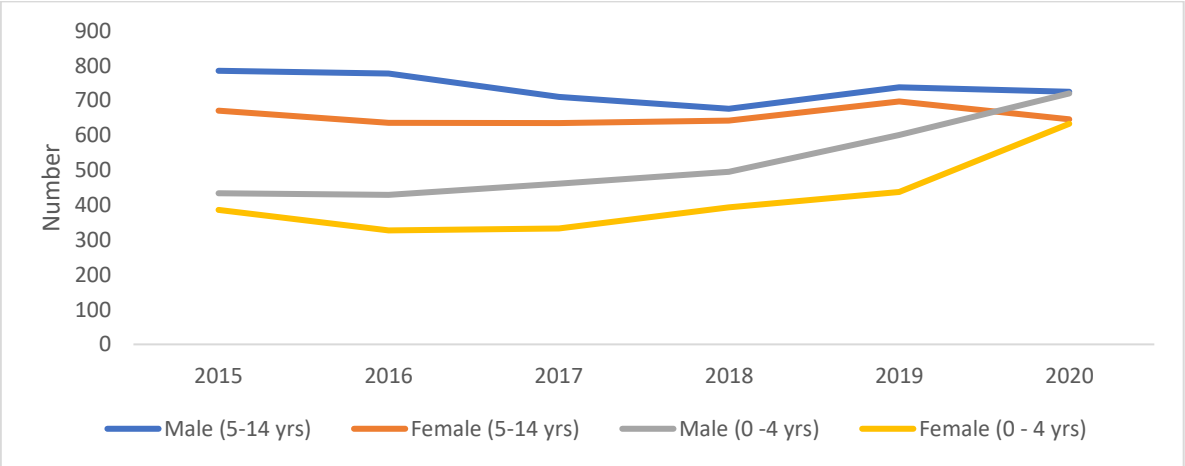

Figure 2.11: Childhood TB notifications by age and gender

2.5.2.6 Treatment outcomes for DS-TB

Since 2015, the programme has reported a high treatment success rate exceeding 90% in 2018 and 2019. In 2020, treatment success rate declined. From 2015 to 2019 absolute number of loss to follow up and not evaluated was declining steadily but in 2020 the numbers started

increasing. This increase could be a result of the COVID19 pandemic. Loss to follow-up among previously treated TB patients was high at 6%. Most of these TB patients were treatment after lost to follow-up, indicating that TB patients with a history of loss to follow-up have high chances of skipping treatment when brought back to treatment. TB Mortality rate increased among patients on treatment was 5% in 2020, lower than 6% in 2019. However, the failure rate remained unchanged at below 1%. In PLHIV, treatment success rate was at 88% in 2019.

2.5.3 TB/HIV

The high burden of TB in Zambia is linked to HIV infection. According to ZDHS 2018, the prevalence of HIV among adults ages 15 to 59 years varies geographically across Zambia but on average; 11.1% of adults aged 15-49 in Zambia were HIV positive.

In Zambia the proportion of TB patients with documented HIV status is high, however in 2020, the testing rate went down from 95% to 93%. The rate of HIV positivity among TB patients has declined from 60% in 2015 to 39% in 2020. However, the proportion of TB patients who test HIV positive in Central, Lusaka and Southern provinces were higher than the national average.

The fall in HIV positivity rate among TB patients could be attributable to increase in ART coverage and rates of viral suppression as well as high TPT initiations and completion rates.

Furthermore, ART coverage among HIV positive TB patients has been increasing reaching 98% in 2020.

In 2020, 300,687 PLHIVs were initiated on TPT representing a 58% increase compared with the 2019 performance. TPT completion rate was 82%.

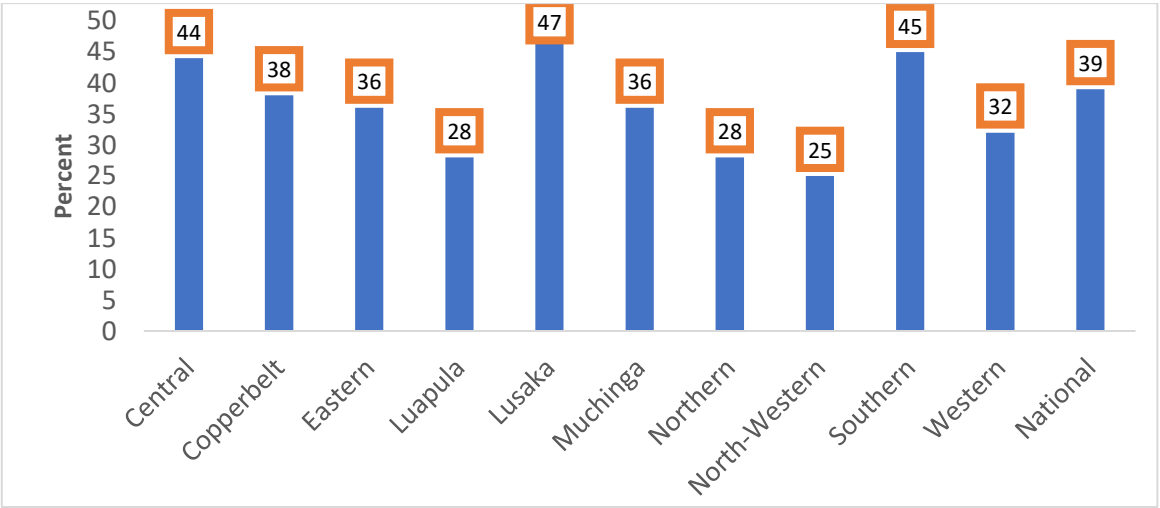

Figure 2.12: Percent of TB-HIV co-infection by province in 2020

2.5.4 Drug resistant TB

Drug-resistant (DR-TB) is a health threat in Zambia because if not well managed it will lead in more deaths and severe complications leading to permanent disabilities post treatment. The burden of DR-TB in Zambia is still high; however, the trend in TB DR-TB burden over time shows a decrease in the burden of DR TB as shown in the 2019/2020 drug resistance survey

(DRS). In 2008 MDR-TB prevalence by LPA was estimated to be 1.6% (95%CI 0.5-2.6) and in 2019 was 0.5% (95%CI 0.2-1.4).

Table 2.2: Overall resistance for 2019 compared to the 2008 survey results

Resistance	***2008 Results (95% CI)***	***2019 Results (95% CI)***
MDR	*1.6% (0.5 - 2.6)*	*0.5% (0.2 – 1.4)*
INH resistance (all)	*6.0% (4.2 – 6.8)*	*4.4% (3.2 – 5.9)*
Rifampicin resistance (RR-TB)	*2.4% (1.2 – 3.6)*	*2.0% (1.2 – 3.6)*
Any resistance	*6.8% (4.9 – 8.7)*	*5.9% (4.2 – 8.2)*

2.5.4.1 DR-TB Case notification

The number of DR-TB cases detected increased from 180 in 2015 to 627 in 2017 and started declining every year to 492 in 2020. The initial rapid increase in DR TB notifications is attributed to GeneXpert MTB Rif expansion and change of policy of making GeneXpert as a primary test for all TB presumptive. However, from 2018 despite an increase in Xpert testing, the notification of DR TB cases started to decrease. This can be explained by the findings of the 2020 DRS which have shown a decline in the burden of DR-TB compared to 2008 DRS.

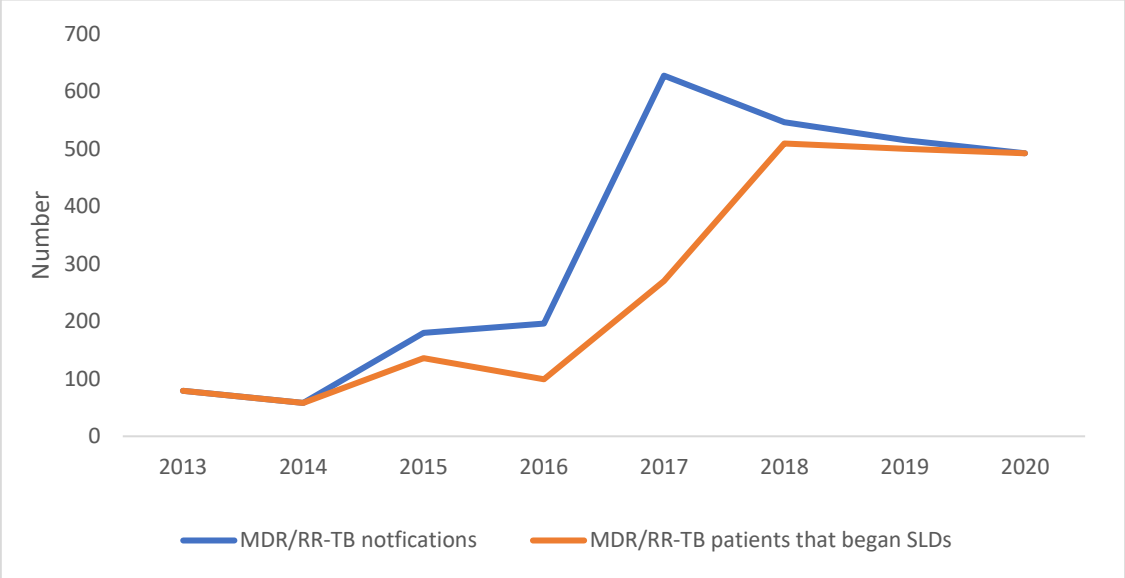

Figure 2.13: Trends in notifications of drug resistant TB, Zambia 2013-2020

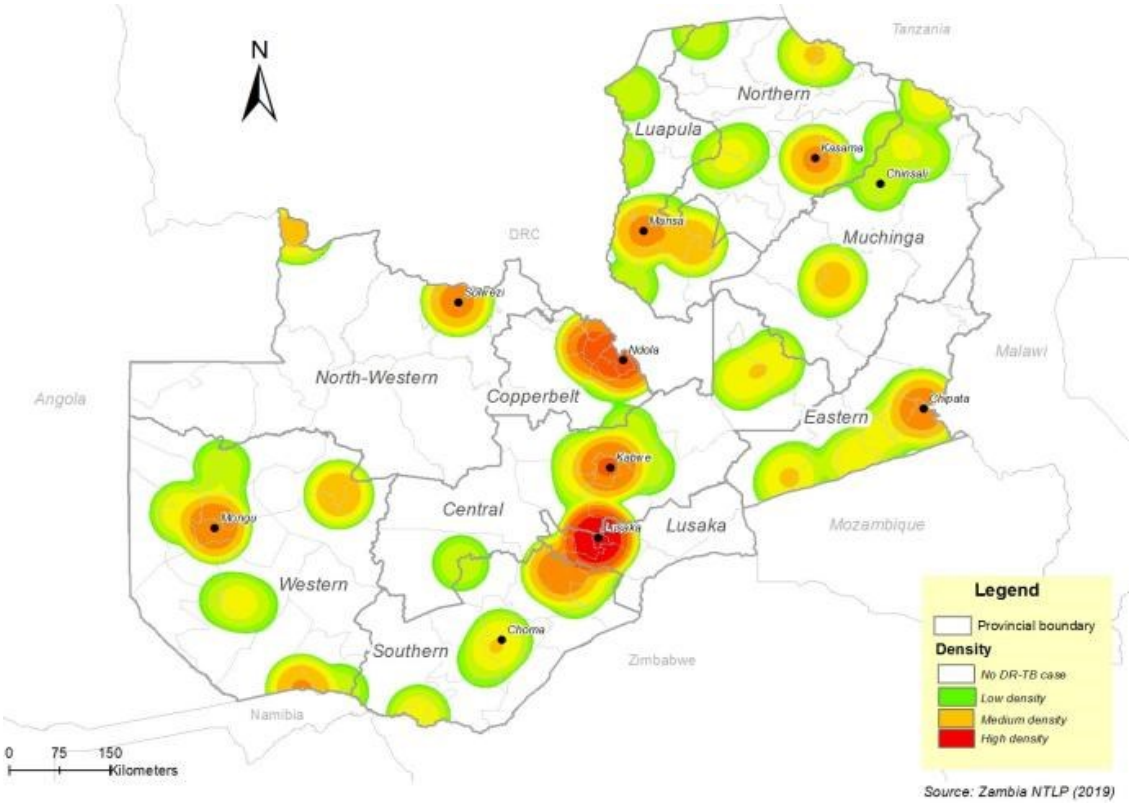

Figure 2.14: Map of the density of DR-TB cases in provinces of Zambia 2020

2.5.4.2 Treatment outcomes for DR-TB

In 2015 treatment success rate for MDR-TB increased from 33% (2013 Cohort) to 78% in 2020 (2018 Cohort). The increase has been attributed to deployment of community DR-TB nurses, nutrition support and decentralization of DR- TB treatment centres from 32 sites in 2018 to 100 sites by end of 2020 as indicated in the 2.3 below. Treatment regimens of MDR/RR-TB in Zambia are based on the World Health Organization treatment updated guidelines. Notably, the NTP transitioned to bedaquiline based all-oral DR-TB treatment regimens in 2019.

Table 2.3: Number of treatment sites in each province as of 2021

Province	***Number of sites***
Lusaka	*10*
Copperbelt	*9*
Central	*8*
Southern	*8*
Eastern	*8*
Western	*14*
Northern	*13*
Muchinga	*8*
Luapula	*8*
North-Western	*14*
Total	***100***

2.6 The Burden of Leprosy Disease in Zambia

Zambia attained Leprosy elimination status in the year 2000 by achieving the global target of less than one patient per 10,000 populations. Despite this, Leprosy remains a public health problem in Zambia. The country records about 200-250 cases each year, among which over 60% are highly infectious and have at least moderate to severe disability (grade 2-3) at the time of diagnosis. The Ministry of Health through the NTLP has put in measures to ensure that guidelines and basic tools for diagnosis and treatment of the disease are readily available in all health facilities in the country. Furthermore, the NTLP has prioritized capacity building of frontline health care providers to manage leprosy; contact investigation of close contacts of those suffering from leprosy; provision of preventive and rehabilitative services for all those affected by leprosy; and instituting social and economic integration for all those affected by leprosy. In 2020, Zambia registered a total of 219 new cases of leprosy.

The low leprosy notification and high rates of patients presenting with severe disability point to lower awareness about Leprosy in the community, delay presentation and poor clinical skills to diagnose leprosy among health care workers.

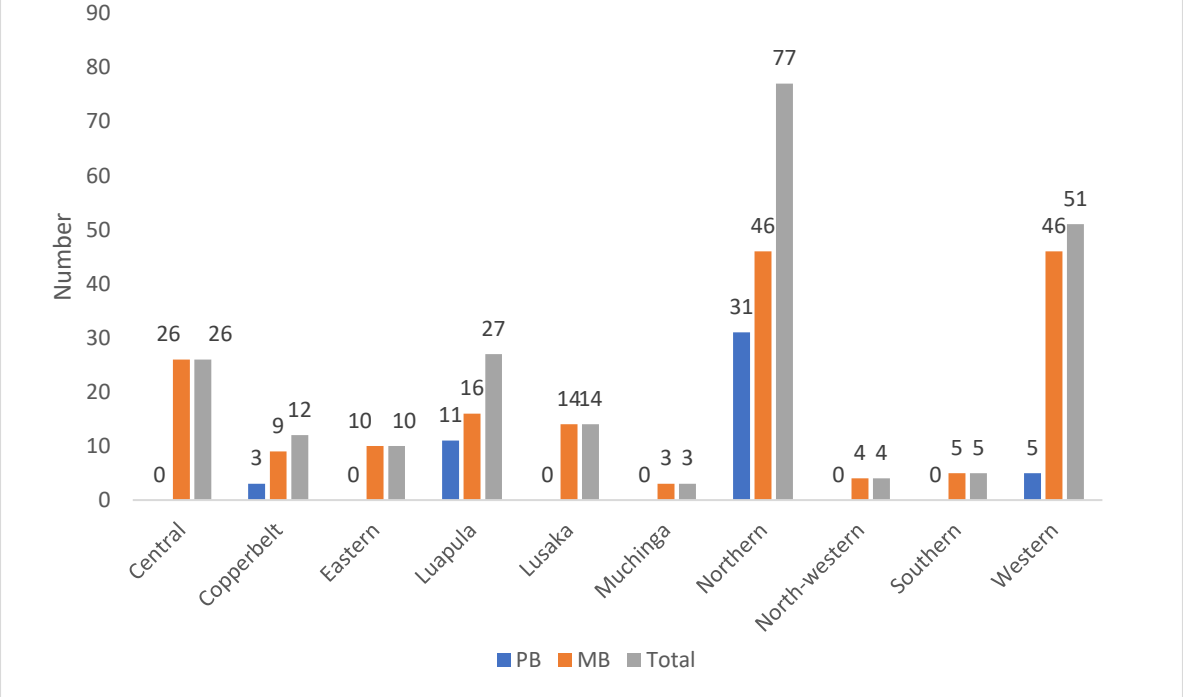

Figure 2.15: New cases of Leprosy by province in 2020

SECTION THREE: SITUATION ANALYSIS AND PROGRESS UNDER NSP 2017-2021

3.1 Introduction

The previous NTLP's National Strategic Plan (2017–2021) was aligned with the National Health Strategic Plan (2017–2021), the WHO Global End TB Strategy, and the Sustainable Development Goals (SDGs), which aim to eliminate TB by 2030. This new NSP is based on the following priorities: scale up high-quality TB prevention, treatment, and care services; expand the TB laboratory network close to people's homes; and provide people-centred TB care services.

Furthermore, the previous plan prioritized early TB case detection, as well as prevention and treatment of vulnerable populations that include children and adolescents, prisoners, miners, people living with HIV/AIDS, and women; and increase multisectoral action as well as track progress and build accountability towards a TB-free Zambia. The plan outlined interventions to contribute to achieving rapid progress towards the goal of universal health coverage through health systems strengthening, while also ensuring universal access to quality people-centred TB prevention and care, ensuring that no one is left behind. Additionally, the NSP had identified the primary health care (PHC) approach as bedrock of the TB elimination agenda.

This situational analysis is informed by routine programme data and monitoring and evaluation reports, external NTLP reviews including the February 2020 independent programme review, January 2020 Epidemiological review, and other external technical assistance missions such as the Global Drug Facility (GDF) and the Green Light Committee (GLC). Furthermore, information from periodic surveys including 2013-2014 National TB Prevalence Survey and 2019-2020 Drug Resistance Survey (DRS) and national and sub-national TB estimates using Time Modelling approach informed prioritizations of the interventions. The findings of situational analysis and gap analysis led to the identification of goals, new objectives and define strategic interventions for the new NSP.

A multi sectoral approach was used to perform the SWOT analysis to identify major weaknesses and gaps. Stakeholders included USAID, WHO, Centre for Disease Prevention and Control (CDC), Centre for Infectious Disease Research in Zambia (CIDRZ) the USAID TB Local Organization Network (LON) Project, Churches Health Association of Zambia (CHAZ), Programme for Appropriate Technology in Health (PATH) through the USAID Eradicate TB Project, Zambia AIDS Related Tuberculosis (ZAMBART), Internal Medicine consultants and Paediatricians, Global Fund Programme Management Unit, Various department within the MOH, Civil society organizations, Community based organization and people affected by TB and HIV.

3.2 Programmatic Efforts and Achievements

This section presents programmatic interventions and key achievements that have been registered through implementation of the TB NSP (2017-2021).

3.2.1 TB case finding and treatment

The NTLP has established a well-structured system for TB prevention, diagnosis, and treatment. During the implementation of the NSP (2017-2021) there has been a notable decrease of TB incidence rate from 391 per 100,000 population in 2015 to 319 per 100,000 population in 2020 representing 18% reduction against the set target of 16%. The programme notified 40,000 new and relapsed TB cases in 2020 compared to 36,741 TB cases in 2015. The exponential increase in TB notifications during COVID 19 pandemic resulted from several interventions that the NTLP and its partners implemented successfully. The interventions include activating several health facilities to implement systematic active case finding at every service entry point, including the central outpatient departments and admission wards. The introduction of weekly TB surveillance contributed to an increase in TB case notification because this approach helped to address a high under notification rate gap found in the 2019 Data Quality Audit. The weekly data is discussed during a TB Situation Room every Thursday, attended by a cross-section of health care workers and community providers across the country. Periodic ACF, contact investigation, and Childhood campaigns significantly increased TB notifications compared with the 2015 performance. This increase in TB notifications also resulted in corresponding increase in treatment coverage reaching 68% in 2020 compared to the baseline of 59% in 2015. Notwithstanding this achievement, approximately 19,000 TB cases were missed in Zambia.

The NTLP has decentralized DR-TB services from 2 treatment initiation sites in 2017 to 100 in 2020. DR-TB patients receive psychosocial, nutrition and transport support. DR-TB nurses have been recruited to support patients in the community; these initiatives have resulted in an improvement in the quality of care and impacted positively on the treatment success. The patients enrolled into treatment against total DR-TB patients diagnosed increased from 75% in 2015 to 100% in 2020. In 2017 the programme piloted use of injectable based shorter MDR-TB regimen, later when the World Health Organization issued an updated guidance, the programme fully rolled out Bedaquiline based all oral MDR-TB regimen which improved treatment success rate reaching 78% in 2020 (2018 cohort).

In the 2017-2021 NSP implementation, the programme recorded an increase in treatment success rate from 85% in 2015 to 90% in 2019 among drug susceptible patients and from 33% in 2015 to 78% in 2020 for DR-TB patients. The programme also rolled out child friendly formulations of TB medicine.

The major gaps noted include a high proportion of missed incident TB cases currently at 32%, while the contribution of childhood TB cases to total TB notifications remains suboptimal at 7% against the recommended threshold of 10-15%. Factors contributing to missing cases of TB include low levels of TB awareness in the community, index of TB suspicion among health care workers, engagement of private providers, and coverage of sensitive TB diagnostics tools

including rapid molecular diagnostics tools such as GeneXpert and imaging services such as digital X-rays. Furthermore, deaths among TB patients on treatment has remained around 4-5% with four provinces (Southern, Eastern, Luapula and Western provinces) recording TB deaths rate above 10%.

3.2.2 Childhood TB

During the NSP 2017-2021 implementation period, there has been a minimal increase in Childhood TB notification from 2,276 in 2015 to 2,724 in 2020. Specifically, the number of TB cases in children aged 0-4 between 2015 and 2020 increased by 67%. However, overall TB notification among children (0-14 years old) is still below the WHO recommended expected benchmark of 10-15 percent among all forms of TB (at 7) in 2020. To enhance TB case finding in children the programme adopted use of stool specimens for testing on GeneXpert platforms. This approach has addressed the problems of collecting sputum samples especially in 0-4 age group. The programme trained health care workers in all the provinces in performing gastric lavage and rolled out Urine LAM based on the WHO guidance. Additionally, the NTLP started to integrate childhood TB into other health services such as the Maternal and Child Health (MCH). BCG vaccine uptake has remained very high. Treatment for children with DS-TB and DR-TB has been optimized and simplified by introducing child friendly formulation and oral MDR-TB regimen.

In the new NSP 2022-2026, the resources must be dedicated to capacity building, regular onsite mentorship on specimen collection, TB diagnosis, clinical evaluation, and use of TST or IGRA, and treatment. The programme should prioritize the development and dissemination of job aides on childhood TB and expand use of less invasive diagnostic methods such as the use of stool and urine specimens for testing. Cohort analysis should be disaggregated by age to report treatment outcomes for children.

3.2.3 TB-HIV

TB/HIV collaborative activities have been fully rolled out in all health facilities and the community. The package includes HIV testing for presumptive TB clients and TB patients, ART provision of HIV positive individuals, TB screening and TPT for eligible PLHIV. In the NSP 2017-2021, the program sustained high HIV testing and ART provision rate of over 95%. In 2020 HIV testing rate among TB patients dropped to 93% potentially due to the impact of COVID-19, the proportion HIV positive TB patients on ART were 98%. The proportion of TB patients who test HIV positive reduced from 60% in 2015 to 39% in 2020 largely due to the high coverage of ART, and high viral suppression. The exponential increase of PLHIV initiated on TPT also has a positive effect since fewer PLHIV will fall ill with TB. For good governance a TB and HIV sub technical working group (TWG) and TPT Surge task team are in place with representation from the TB and HIV Programmes, partners, and representatives from CBOs.

In the new NSP there is need to institutionalize and strengthen TB-HIV collaboration at all levels to enhance the coverage, uptake, reporting and commodity security. Additionally, the TB and HIV programmes should prioritize offering HIV and TB services under one roof and systematically report patients in HIV care who are diagnosed with TB.

3.2.4 TB Prevention

The TB and the HIV programmes have effectively collaborated in scaling up TB prevention therapy (TPT) for eligible persons living with HIV. From 2018, there has been an exponential increase in TPT initiation from only 18% of PLHIV in HIV care to 68% at the end of 2020. Equally, TPT completion has increased to 82% in 2020. Notably, there has been a growth in TPT coverage among under 5 contacts i.e., from 3% in 2017 to 28% in 2020. However, the coverage is still sub optimal. The thrust in TPT coverage has been a result of high political commitment, stakeholders buy-in and support, and effective commodity security.

Furthermore, in line with the WHO guidelines for latent TB infection optimized and shorter duration TPT regimen were introduced in 2020. In addition, TPT for contacts of MDR-TB contacts was introduced in April 2020. TPT data collection and reporting should be digitalized. In the new NSP, the priority is to reach saturation with TPT among PLHIV and increased TPT uptake in the under-five contacts from 28% to at least 50%. According to the TPT guidelines, TPT is extended to people exposed to silica and other high-risk groups in line with the WHO's normative guidance.

3.2.5 Laboratory

In 2017, the TB programme adopted GeneXpert as the primary diagnostics for all presumptive TB cases in Zambia. As a result, the programme increased the number of GeneXpert machines from 163 in 2017 to 315 GeneXpert machines deplored in 262 sites in 2020, thereby increasing the number of diagnostic facilities with molecular diagnostics from 24% in 2017 to 47% in 2020. The programme has also introduced the use of stool testing on Xpert platforms and Urine LAM tests to improve case detection in Children and in PLHIV in both In-patient and Outpatient settings.

The current coverage of molecular diagnostic services covers much of the dense population areas but leaves gaps along some population corridors as shown in the map below. (USAID Infectious Disease Detection and Surveillance (IDDS): Zambia TB Diagnostic Network Assessment) Furthermore, the map also shows that coverage diagnostic services in areas with a sparser road network are limited.

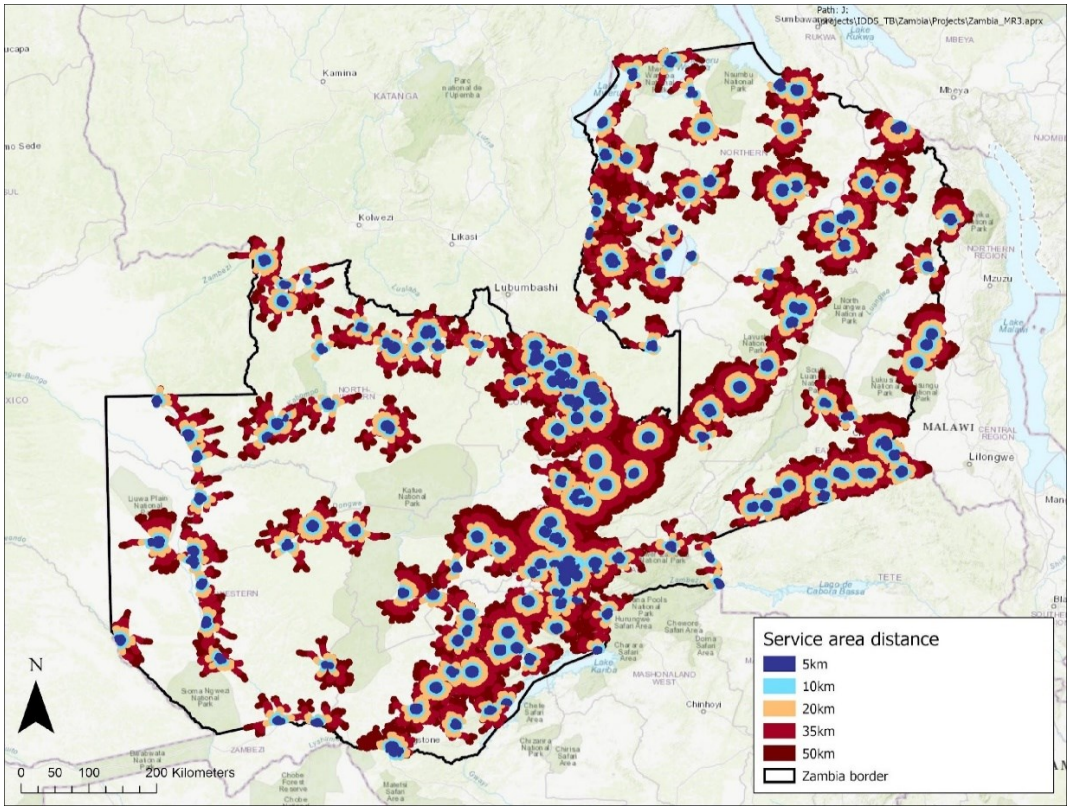

Figure 3.1: Current Xpert Service areas (USAID Infectious Disease Detection and Surveillance (IDDS) geospatial analysis)

While there has been a significant expansion in the laboratory network, frequent stockouts of the laboratory reagents (especially culture reagents), unreliable specimen transport system and power outages remain a challenge. To increase access to molecular TB diagnostics, the programme must optimize utilization of the current network through a mapping of GeneXpert machines based on sample load, reliable access to power, availability of reliable courier and digital return of results. The programme must also expand the diagnostic network to provide molecular diagnostic services including TB LAMP within accessible distances for all Zambians using recommendations from the diagnostic network assessment conducted in 2020-2021.

3.2.6 Procurement and Supply Chain

The supply for anti-TB medicines has been adequate with no reported stock outs of first line and second line TB drugs apart from TPT for PLHIV during the roll out and scale up. The programme uses a paper-based system for stock management which relies on report and requisition system. The forecasting and quantification system used is robust and reliable.

Going forward, the TB programme should invest in the integration of the TB commodity management system into e-LMIS to ensure effective tracking of key supply chain indicators and enhance stock visibility, therefore commodity security.

3.2.7 Monitoring and Evaluation, Surveillance and Research

The TB programme uses paper-based TB registers, summary forms, treatment cards and TPT registers at facility level for clients' management. At district level, data is aggregated from

DHIS2 at monthly intervals for onward submission to the provincial level. The programme has started rolling out SmartCare starting with e-first facilities. In 2020, the NTLP started implementing routine TB surveillance that resulted in the establishment of the weekly TB situation room. During these meetings, provincial and district TB coordinators review trends in key TB indicators with the NTLP, partners and other stakeholders. This weekly TB surveillance data is reported through structured Excel which is sent to the districts, province, and the National Level for aggregation.

A Data Quality Audit (DQA) undertaken in 2019 revealed major gaps in M&E including incomplete registers, inconsistencies between notifications reported to the NTLP using summary forms and the total notifications recorded in the register resulting in overall underreporting of TB cases. Deficiencies in documentation of child case notifications and of treatment outcomes in general was also widespread. The DQA showed that 48.3% of cases diagnosed in the laboratory were not recorded in the TB treatment registers and possibly not linked to care and 17% of the TB patients who were initiated on TB treatment and recorded in the TB registers were not reported to the NTLP. This ultimately leads to underestimates of program performance.

Furthermore, the M&E for TB programme has only one full time Government officer, while the other three M&E staffs are supported by partners through short contracts.

In mitigation, the NTLP should prioritize allocating additional M&E staff including an epidemiologist and data manager. Furthermore, the NTLP should roll out electronic data capture and reporting and a case-based surveillance system for tracking patients from diagnosis through the entire care cascade and ensure interoperability between the electronic case-management systems (SmartCare) and aggregate reporting system (HMIS) for optimal data management. Moreover, the NTLP need to establish a more sustainable mobile App for reporting weekly TB surveillance data.

In addition, the NTLP will strengthen data management, analysis and use at national and sub-national levels by designing a centralized database for managing facility and community data for DS-TB, DR-TB and TPT.

The NTLP, in collaboration with its partners, prioritize Research to answer questions identified during the routine implementation of various interventions. The programme also conducts Research to respond to emerging issues. The NTLP collaborates with the research unit within the Directorate of Public Health and Research of the Ministry of Health, the National Health Research Authority (NHRA) and the Zambia National Public Health Institute (ZNPHI). The programme participates in the annual national research conferences, which the NHRA organizes. With support from partners, the programme produced an operational research priority document. In the life of the previous NSP (2017-2021), the programme coordinated and implemented several research studies, these include a) Drug-Resistant Survey b) countrywide TB mortality study, c) Cost-benefit analysis, and health impact of investing in TB Control Programmes. Partners have also conducted and published several research studies that have informed the programme on various innovations. In the new NSP, the programme will

promote research proactively, advocate, facilitate and engage in conducting and disseminating TB research. A follow up National TB Prevalence Survey will be conducted.

3.2.8 TB Infection Prevention and Control

The programme has in place administrative guidelines and institutionalized practices at facility level for active TB screening in clinical settings and among high-risk populations. This strategy is strongly backed by national, provincial, district and facility level on going mentorship and data review. However, the designs of most of the health facilities render environmental control inadequate and tracking of the infection control indicators is not systematically conducted. In view of COVID-19, the TB programme has benefited from availability of PPE and the use of virtual platforms for capacity building as well as data review meetings.

Effective TB infection prevention and control measures at facility level and the community need to be integrated within the general infection control management structure.

3.2.9 Human Resources for Health (HRH) in TB services/Capacity Building

The current staff complement at national level is 13 which include 11 technical and one administrative staff (over 50% of these staff are seconded and contractual staff supported by partners). The NTLP has continued to provide opportunities for capacity building for staff through virtual platforms and supporting training in TB management. Skills of health care workers at the different levels of care in case detection and management were enhanced through training. In service training sessions have been implemented using virtual platforms amidst COVID-19 restrictions.

However, the TB programme has experienced high staff turnover of trained staff especially at district and health facility levels. At sub national level, there is a gap in designated TB focal point persons resulting in sub optimal coordination, ownership, and accountability.

As part of the NSP 2022-2026, the programme needs to undertake a review of the establishment and propose to fill the unfilled positions on the organogram both at national and sub national levels. These include PPM focal person, childhood TB focal person and TB/HIV officer. Other specific positions include PSM officer, TB laboratory officer and 2 M&E officers, epidemiologist, data manager and community TB officer to cover all technical areas for TB programming including research, innovation, Social Behaviour Change (SBC), community activities, etc. Skills of health care workers at different levels of care in case detection and management will need to be enhanced through virtual training.

3.2.10 Advocacy Communication and Social Mobilization (ACSM)

The programme implemented ACSM activities in collaboration with the health promotion department and partners. However, there exists gaps including finalization of the national ACSM strategy that remains in draft form.

The advocacy activities are intensified around commemoration of World TB and HIV commemoration days as well as child health week. In line with the global agenda, the programme in collaboration with partners have established parliamentary caucus on TB in 2018 with the role of advocating increase in TB funding among others.

In the new NSP, the NTLP and its stakeholders should prioritize finalization, dissemination, and implementation of the ACSM strategy. The strategy document must form the basis for strengthening linkages between CBOs, Private Health Providers, and key and vulnerable populations (KVPs) by mobilizing stakeholders and resources. The TB training module must be revised to include human rights, medical ethics, and legal issues. The NTLP in collaboration with CSOs should speed up establishing the Zambia Stop TB partnership. During first and second year of implementing this NSP, the programme in collaboration with is partners should conduct Community, Rights and Gender as well as stigma assessment using Stop TB Partnership tools.

3.2.11 Community TB care

The NTLP continued to prioritize engagement of the community in all active TB case finding campaigns and contact investigations through CBVs and CHWs. Community TB register or contact investigations registers for screening of TB contacts are available in some of the communities. The high treatment success rate for both DS-TB and DR-TB have been attributed to community involvement in treatment support programmes and tracing TB patients who are lost to follow up. Furthermore, the National TB mortality study revealed that patients' whose families were involved in their care had favourable treatment outcomes justifying a needed need for providing effective social behavioural approaches, such as the engagement of family members in TB screening and treatment. The NTLP will put efforts in implementing patient centred approaches and research to inform the most effective ways to capitalize on community contributions to finding missing cases. The programme is also progressively putting in measures to systematically track community contribution to the overall TB notifications and other community indicators.

Putting in place systems to track community health care worker activities and enhancing ownership and accountability of CHWs and CBVs should be prioritized. Furthermore, there is evidence of the need to strengthen coordination and supervision of Community Based Organizations and community health care workers that are implementing community TB Care Activities.

3.2.12 Human Rights and Gender

The NTLP activities are implemented in accordance with Gender and Human Rights standards as guided by the MOH policy. The programme will invest efforts and resources in mainstreaming TB and gender, disability, and human rights perspectives in all major development programmes in public and non-public sectors. There is need to conduct human rights and gender analysis to inform and tailored programming aimed at improving access to TB screening and care services for all population groups. Addressing barriers along the TB care cascade and eliminating all TB and leprosy related stigma should be a priority. Stigma reduction approaches should be designed according to settings such as health facilities and the community.

3.2.13 Public Private Mix (PPM)

The NTLP has forged relationships with private facilities, professional associations, and academic institutions. A framework for engagement of private sector is in place and being enhanced. A legal framework has been developed and in use to guide engagement of private

health facilities in providing TB services. Additionally, the MOH has developed standards to govern TB service delivery inclusive of both public and private facilities. The policy guideline is that all private facilities be linked to the district health office in their respective districts and gets their support with anti-TB medicines and diagnostics services including reagents through that mechanism. Training of health care workers in TB and regular technical supportive supervision should always include the private health facilitates.

The programme should revise the PPM action plan[12] that guides engagement of the private sector. Moreover, NTLP should facilitate engagement of professional bodies, academic institutions, and umbrella organizations for traditional healers. Priorities should include full involvement of umbrella faith based (FBO) (e.g., CHAZ) and private hospitals into all NTLP diagnostic networks and treatment services (supported by public or donor funding), including drug and diagnostic commodity distribution; specimen transport networks; trainings; and supervision and quality assurance activities.

To promote earlier diagnosis of TB, referral models from traditional healers, drug shops and general practitioners should also be funded and supported. Finally, NTLP M&E systems should routinely capture the site of notification (public or private; primary or secondary) and the percentage of private and FBO facilities that are routinely reporting TB cases to the NTLP.

3.2.14 Key Populations

The NTLP has institutionalized targeted screening and intensified case finding for high-risk individuals includes miners, inmates, and those in other congregate settings, PLHIV, children, health care workers and underserved populations. The programme routinely reports TB notifications in children, PLHIV and inmates in corrections facilities.

The NTLP in the NSP 2022-2026, should prioritize disaggregation of data by risk group and institutionalization of TB prevention activities and intensified case finding in congregate settings.

3.2.15 Adolescent TB

Adolescents are a special population with peculiar needs in relation to access to health services. The 2020 epidemiological reviews revealed that the gap between estimated TB incidence and TB notifications among adolescents is wide especially in males. Adolescents require targeted interventions tailored to their lifestyle and risk factors. Currently adolescent TB is embedded in the overall Adolescent Health Strategy.

In this NSP, the NTLP will prioritize integration and heightened TB interventions and activities in the adolescents' policy and programs. NTLP will take advantage of the Youth Friendly Services and ensure TB is mainstreamed in chronic disease strategies such as HIV and non-communicable diseases (NCDs).

3.2.16 TB in the Mines

The TB response in the mining sector received significant investment through the Southern Africa Health System Support project. The NTLP has prioritize the screening and care for

[12] NTP Zambia. Engaging all health care providers in TB Control: National PPM Action Plan 2017-2021

pulmonary TB and lung health conditions among miners and mining populations according to the national guidelines.

Emerging evidence from a KAP study conducted in 2018 showed that at least 73% of responders (miners) indicated that they would not disclose their TB status. Also, 23% would not share their TB status with their partners.

This is brought about by the current legislature (Workers' Compensation Act no. 19 of 1976) which prohibits retention of miners who have a history of TB. The scale of mining in Zambia continues to increase beyond the traditional Copperbelt indicating the need for continual investment and collaboration.

In this NSP, the NTLP will establish formal collaboration between mining and government health facilities and facilitate a robust referral system. As part of private sector engagement, health care facilities within the mining sites must have protocols to provide confidential and appropriate screening, care and prevention for TB and HIV among mine workers including provision of TPT among mine workers exposed to silica. At policy level advocacy to repeal the workers' compensation Act no. 19 of 1976 is a critical first step.

3.2.17 Government Commitment

The government through the public health system provides the infrastructure, dedicated human resource and logistical support to the TB program. The government provides TB services free of charge to the patients in all public health facilities. According to the WHO Global TB report of 2021, 31% of the TB funding is domestic, 52 % from international agencies while there is a 17% funding gap.

To achieve the End TB target by 2030, domestic and international funding to TB financing must increase progressively, by at least 5% annually. In addition, the government must facilitate private sector and NHIMA engagement. Within the framework Multi Sectoral Accountability Framework (MAF) for TB, there will be a specific committee to mobilize resources not only from the Government but also non-state actors.

3.2.18 Partnerships

The NTLP collaborates with several partners and stakeholders; some of them provide financial or technical support and others are implementing partners. Table 3.1 lists some of the local and international partners collaborating with the NTLP.

Table 3.1: Main collaborating partners of the National Tuberculosis and Leprosy Programme

Institutions and organizations mainly providing financial and technical support	*United States Agency for International Development (USAID)*
	US Centres for Disease Control and Prevention (CDC)
	Global Fund to Fight AIDS, Tuberculosis and Malaria
	World Health Organization (WHO)
	The World Bank
Institutions and organizations mainly implementing activities	*Churches Health Association of Zambia (CHAZ)*
	United Nations Office on Drugs and /Crime (UNODC)
	KNCV Tuberculosis Foundation
	Zambia AIDS Related TB Project (ZAMBART)

and providing technical support to some extent	*Centre for Infectious Disease Research in Zambia (CIDRZ)*
	Japan International Cooperation Agency (JICA) through Japanese Anti Tuberculosis Association (JATA)
	FHI360
	Jhpiego
	Community-based organizations and civil society organizations

3.2.18.1 Partner Coordination

The coordination of TB activities between the NTLP, the donors and partner organizations are guaranteed through the monthly TB Technical Working Group (TWG) meeting and partner meetings. Membership of the TB Working Group includes relevant departments and programmes linked to TB within the MOH, such as the HIV and AIDS programme, the Health Promotion Unit, Nutrition, correctional services, World Health Organization, CHAZ, donors and implementing partners, and civil society organizations including community-based organizations.

In addition, the NTLP holds bi-annual data review meetings at the national level and quarterly review meetings at provincial and district levels. The programme established a clinical expert committee at national, provincial, and district levels to improve the management of drug-resistant TB patients. At the national level, the DR-TB clinical expert committee meets quarterly, and at the sub-national level, the clinical experts' committee meets regularly. Responding to the impact of the Covid-19 pandemic on TB services, the programme established a TB Situation Room (TSR) where TB patients detected are reported and discussed every week. This online platform also aims to address the problem of under notification and under-reporting that was unearthed in the countrywide data quality assessment that the programme and its partners conducted in 2019.

3.3 Summary of performance against targets for key indicators

Table 3.2 below summarizes progress made on the NSP (2017-2021).

Table 3.2: TB NSP (2017-2021) Implementation Performance Dashboard by Dec 2020

Indicator	**2015 Baseline**	**2020 Target**	**Status 2020**
IMPACT INDICATORS			
TB Incidence per 100,000 population	391	318	319
Estimated number of TB deaths in the population	17,000	11,560	14,800
TB case detection			
Number of notified cases of all forms of TB	41,588	59,413	40,726
Number, new and relapse TB cases	36,741	54,851	40,000
Treatment Coverage	59%	76%	68%
Proportion of notified cases of bacteriologically confirmed TB, new and relapses among pulmonary TB cases	49%	70%	51%
Case notification rate per 100,000 population	230	297	228
Treatment Success			
Treatment success rate – all new cases	85%	90%	89%

TB/HIV			
Proportion of TB cases with documented HIV status	84%	100%	93%
Proportion of TB patients who are HIV positive	60%	No target	39%
Uptake of ART among people with HIV positive TB patients	76%	100%	98%
% of HIV-positive people (newly enrolled in care) on preventive treatment 66%	66%		68%
DR-TB			
Number MDR/RR-TB cases detected	196	1,600	492
MDR/RR-TB patients linked to care	20%	100%	100%
Treatment success rate	33%	78%	78%
# of Treatment Initiation facilities	2	100%	100%
% Of notified TB cases with WRD at the time of diagnosis	Missing data	N/A	100%
Childhood TB			
Number of notifications of TB among children 0-14 years of age, nationwide	2,276	5,940	2,760
Percentage of childhood TB cases out of total notification	5%	10%	7%
Percentage of children < 5 years who are contacts of with TB patients who began IPT	N/A	N/A	28%

3.4 SWOT and Gap Analysis

3.4.1 SWOT analysis

ENABLERS	CHALLENGES
STRENGTHS (Internal Factors)	WEAKNESSES (Internal Factors)
1. Existence of systems and approaches to find the missing people with TB 2. High level political commitment to end TB including the parliamentary caucus on TB. 3. Existence of community-based groups supporting TB and Leprosy efforts at community level and strengthened community participation. 4. Existence of a well-coordinated NTLP leadership structure with TB coordinators at provincial, district, and facility level. 5. Institutionalized ACF through dual screening (TB and COVID 19) in all entry points. 6. Existence of Virtual TB programme performance review platforms i.e., weekly TB Situation Room meetings at national and provincial level. 7. Decentralised models for DR-TB and Leprosy services management 8. Availability of National Policy and Guidelines on TB and Leprosy management i.e., TB prevention in health facilities; use of TPT among other HIV negative populations; and management of leprosy. 9. Reliable forecasting, quantification, procurement, warehousing, distribution and consumption of TB and Leprosy commodities using digital tools. 10. Availability of mWRD diagnostic tools such as GeneXpert, LPA, LAMP, and FM microscopy where WRD are not available. 11. Availability of three culture facilities with capacity to perform DST for 1st line and 2nd line drugs and Genome sequencer is available at UTH TB laboratory. 12. The NTRL has capacity to undertake quality control for reagents, test kits, QMS and EQA for TB diagnostic services. 13. Existence of good TB partners coordination i.e., trained staff, good partner support to the programme, financial and technical support. 14. Existence of the quality improvement (QI) unit supporting the NTLP to access to TA and QI for TB laboratory services. 15. Treatment services available to the lowest level health facilities	1. There is a wide gap between TB Notifications and estimated burden for all TB patients, this is even high in adolescents especially among males. 2. Capacity to diagnose childhood TB is limited especially at primary health care level 3. Inadequate patient centred and differentiated services for TB clients. 4. Suboptimal involvement of family members in the administration of treatment support in the community. 5. Continued use of paper-based system for patient management creating challenges in reporting, managing appointments, and tracking of cohorts. 6. Inadequate institutionalization of TB infection prevention and control (IPC) measures including tracking of TB IPC indicators. 7. Limited number of TB staff position in the Ministry structure at all levels coupled with high staff attrition, long-standing vacancies (District TB and Leprosy Coordinators, TB facility focal person and lack of training plan for new and old NTLP staff. 8. Poor clinical evaluation of presumptive, TB patient leading to missed diagnosis and misclassification of TB patients 9. Limited or lack of nutritional assessment for TB patients at the start of TB treatment for all TB patients including children. 10. Low TPT coverage among eligible HIV negative under -5s contacts of TB cases (28%), resulting from poor TPT demand creation, slow dissemination of TPT guidelines, suboptimal TB screening among contacts of TB patients and poor monitoring of the TPT cascade. 11. Inadequate clinical and laboratory monitoring of DR-TB treatment response and follow through culture and DST results e.g., safety lab, ECG etc. 12. Suboptimal implementation of active drug safety monitoring and management. 13. Suboptimal courier system for sample transportation i.e., inter provincial courier system not fully optimized.

16. Over 98% of HIV positive TB patients accessing ART. 17. Leverage the use of virtual platforms to train more health workers. 18. TB treatment regimen in line with the WHO guidelines such as children friendly formulation, shorter and longer all oral regimens	14. Suboptimal coverage of GeneXpert machines especially in rural districts. Only 45% of the population has access to TB diagnostics services within 5kilometer walking distance 15. Frequent stockouts culture reagents, 16. Underutilization of culture and genomic sequencing facilities and lack of equipment service and maintenance plan for culture facilities. 17. ACSM activities not systematically implemented (ACSM strategy still in draft form) 18. Limited laboratory testing for Leprosy. 19. Suboptimal EQA coverage for microscopy and GeneXpert. 20. Human Rights and Gender (HRG) has not been adequately prioritized to understand programmatic disparities. 21. Lack of operationalization of Patient Charter in most health facilities across the country. 22. Domestic funding for TB increasing at a slow pace 23. Inadequate role of the media and civic leaders to better educate the public and spread greater awareness about TB. 24. Suboptimal coverage of DST posing a threat to amplify burden of DR-TB and poor outcome of treatment monitoring
OPPORTUNITIES (External Factors)	THREATS (External Factors)
1. Existence of the parliamentary Caucus on TB. 2. Community dispensation of TPT as part of the contact tracing package, cohort monitoring, adherence, and monitoring. 3. Introduction of a shorter 3HP combined dosing that is likely to enhance uptake, reduce adverse events and improve completion 4. Available lessons from TPT and PrEP in the HIV programme to invest in multi-month dispensing and differentiated service delivery (DSD) in the TPT for HIV negative high-risk populations 5. Existence of a well-structured electronic record system under HIV services (SmartCare)to implement replace paper-based system for TB management. 6. Opportunities to optimize the new molecular technologies for diagnosis of TB diagnosis, EID, viral load monitoring and COVID 19. 7. The Private sector keen to be engaged in sample courier system	1. Development and importation of new TB resistant patterns impacting treatment outcomes (ESwatini strain detected during DRS) 2. Close out of big projects (SATBHSS and Eradicate Project) pose a huge challenge to TB financing 3. High levels of undernutrition in some provinces with associated increased risk for certain adverse events and deaths hence slowing the attainment of End Strategy milestones 4. If not well structured, implemented and monitored, multi-disease testing on GeneXpert platforms can negatively affect TB testing 5. Integrated courier system lacks full financial support hampering on coverage and sustainability 6. Women and children are economically disadvantaged and have limited access to TB care.

8. Political will to support Community, Rights and Gender in collaboration with the Gender unit at MoH, NAC and at the office of the president. 9. Availability of donor funding to the TB including support for CBVs and CSOs. 10. Existence of NHIMA and other insurance companies to support TB programme to reach the private sector. 11. Existence of a fully funded QI Unit in MOH to develop regular quality checks.	7. TB affects the under-privileged without access to basic human rights like clean water and sanitation, poor housing, poor access to food and education 8. Poor health seeking behaviour in men despite them being the most affected by TB which means they continue spread the infection. 9. Stigma and discrimination towards TB and Leprosy remains high. 10. Currently not data for the shift in diabetes Mellitus cases post covid-19, However we will track this while the implementation 11. Redirection of Staff to COVID-19 interventions affected TB service delivery. 12. No funding predictable funding to Leprosy activities

3.4.2 Gap Analysis

3.4.2.1 TB Case Finding

In 2020, at least 32% of the estimated new and relapse cases of TB were missed. With the advent of COVID-19, the TB programme will benefit by integrating the screening algorithms for differential diagnosis. With the restrictive measures instituted to contain COVID-19, the TB burden may have increased, hence potential corresponding high proportion of missed cases.

Key gaps:

1. Limited GeneXpert coverage especially in the rural areas
2. Limited access to Chest radiography due to low coverage of X-ray machines and user fees for Chest X-ray services when available.
3. Limited Private sector engagement to TB case detection
4. Contact investigation remains sub-optimal.

3.4.2.2 TB Treatment

TB treatment success rate for new and relapse DS-TB cases stands at 89% while treatment success rate MDR/RR-TB was at 78% in 2020. The programme will sustain and improve on these success rates towards 95% and 85% targets for DS-TB and DR-TB respectively through supporting various activities centred on early detection and early treatment of all forms of TB.

Key gaps:

1. Sub-optimal multi-disciplinary involvement in TB patient management at health facility level
2. Low coverage of DST to inform management of patients especially in cases of INH resistance
3. Lack of equipment and supplies for baseline tests prior to treatment initiation and follow up of DR-TB Patients
4. Nutritional assessment not routinely conducted at the start of TB treatment
5. Psychosocial support to TB patients remains sub-optimal.
6. No well-established e-compliance system especially amid COVID 19 when in person treatment support may be restricted

3.4.2.3 Laboratory Diagnostics services

The TB programme has scaled up mWRD TB diagnostics such as GeneXpert, LPA and TB LAMP. The programme now can perform drug sensitivity test (DST) for 1st and 2nd line drugs. The technical working group oversees all QMS activities. Additionally, all the three culture labs are accredited by SADCAS.

Key gaps:

1. The current laboratory platforms are accessible to only 45% of the population at 5-kilometre walking distance
2. About 4 districts do not have GeneXpert machines, and 280 diagnostic facilities are not using molecular rapid diagnostics (Xpert/TB LAMP)

3. At least, 79% (380/482) confirmed RR cases were not tested for resistance to second line drugs (2020 data)
4. Low coverage of the sample transportation and delay in return of results from the culture labs.
5. Limited capacity to carry out Genomic Sequencing and lack of reagents.
6. Frequent stock out of culture reagents
7. Not all laboratories are enrolled into EQA programme for microscopy and GeneXpert.

3.4.3 Leprosy

Leprosy, one of the neglected tropical diseases, continues to afflict a small but severely impacted population making them even more vulnerable. The country has developed guidelines for management of leprosy, this includes early diagnosis, treatment to prevent disability preventive therapy using rifampicin.

Key gaps:

1. Low clinical skills pre-requisite for the diagnosis and management of leprosy.
2. Limited awareness about leprosy in the community
3. Limited support, and resource allocation for leprosy.
4. Limited access to social safety net for disabled leprosy patients.

3.4.4 Cross cutting issues

3.4.4.1 Community, Human Rights and Gender

The NTLP activities are implemented in accordance with Gender and Human Rights standards as guided by the MOH policy, and the TB services are accessible to all in public health facilities free of charge. Community engagement and participant is central to TB services delivery.

Key gaps:

1. Sub-optimal women empowerment programmes therefore increasing the risk of TB among women who are already socially and economically disadvantaged.
2. Poor health seeking behaviour in men despite them being the most affected by TB which means they continue spread the infection.
3. Inadequate access to information on TB by patients especially in local languages.
4. Under-operationalization of Patient Charter in most health facilities across the country
5. Community contribution to the overall TB notifications not systematically tracked
6. ACSM strategy still in draft form
7. Limited funding to community interventions including lack of predictable funding to community health care workers stipend.

3.4.4.2 TB in children and adolescents

The programme has prioritizing childhood TB prevention, diagnosis, and treatment to accelerate the attainment of TB elimination agenda by 2030. The TB programme has started to leverage the existing HIV adolescent programmes with a view to provide comprehensive and full integrated services to adolescents.

Key gaps:

1. The proportion of children diagnosed with TB against the overall TB notifications remains low, currently 7%
2. Limited capacity to make a diagnosis of TB in children especially at primary health care level
3. Wide gap between estimated TB incidence and notified TB cases among adolescents especially in males.
4. No dedicated Childhood and Adolescent TB focal point person at NTLP central unit
5. Inadequate knowledge and awareness about TB among adolescents leading to poor health seeking behaviour.
6. No targeted TB interventions in schools

3.4.4.3 TB Financing and Resources

The NTLP TB has built a very strong collaboration with funding partners and implementing partners. This has resulted in the programme leveraging and optimizing of the resources for TB programming. There are calls for government to allocate adequate resources to the NTLP through strategic and targeted domestic resource mobilization to accelerate TB response towards TB elimination by 2030.

Key gaps:

1. TB has a significant financing gap (~20%)
2. Inadequate private sector engagement and involvement
3. Low coverage of NHIMA in both public and private facilities

3.4.4.4 Multi-sectoral collaboration

The NTLP functions through a robust TB TWG with active involvement of the Programme staff led by the NTLP Manager, funding agencies, and implementing partners, civil society organizations and people affected by TB and HIV. This ensures there is adequate in-depth program review and creates a platform for sharing best practices.

Key gaps:

1. Inadequate knowledge of TB among media personnel.
2. Inadequate engagement of local leadership at community level
3. Weak coordinating mechanisms for civil society engagement.
4. MAF for TB not yet operationalized

3.4.4.5 Leadership, Accountability and Governance

The TB programme enjoys high political commitment and support. The NTLP leadership is well structured at all levels with very clear delegation of authority, accountability, and roles. National coordination is located within the Public Health and Research Directorate. At provincial level and district level the role of TB Coordination is dual TB/HIV. While this is good for TB/HIV collaboration, it weighs heavily against TB in terms of focus.

Key gaps:

1. No legal framework to support the TB elimination agenda

3.4.4.6 Human Resource in TB Services/Capacity Building

The TB programme has a fully developed and coordinated structure with strong technical capacity to manage TB programming at all levels. In addition, there is a pool of community-based volunteers who have been a backbone of community-based activities. The program has adopted virtual platforms of delivering training and mentorship.

Key gaps:

1. Lack of a core curriculum and a funded training plan
2. Contracted key positions of TB focal point persons on the MoH establishment
3. TB not included in pre-service curriculum for Medical Universities, colleges, and Nursing schools
4. Limited capacity to conduct operational research at sub-national level.

SECTION FOUR: NATIONAL STRATEGIC PLAN FOR TB AND LEPROSY (2022-2026)

4.1 Rationale

Since the launch of the predecessor NSP in 2017, many developments have taken place that have positively and negatively impacted the TB control efforts in Zambia. Positive developments include the introduction of new TB diagnostic tools, the all-oral drug resistant (DR)-TB regimen, child friendly formulation as well as weekly TB surveillance and weekly TB situation room. The emergence of COVID 19 has not only disrupted TB services but the entire health system. The Independent Programme Review, and the epidemiological review conducted in 2020, the GDF and GLC Technical Assistance Mission Reports (2019) identified gaps in programme implementation that need to be addressed to achieve set goals. This new NSP, therefore, incorporates these new developments in TB control and, addresses the identified challenges and develops targeted high impact interventions to spur TB response towards ending TB by 2030.

The National Tuberculosis Strategic Plan (NSP) 2022–2026, is aligned to the National Health Strategic Plan (NHSP) 2022–2026, recognizes TB as one of the major public health threats to human development in Zambia. The plan builds on the successes of the five previous strategic plans.

The NSP is based on the principles underlying the End TB Strategy - namely, government stewardship and accountability, with monitoring and evaluation, building a strong coalition with public and private sectors, civil society, nongovernmental organizations (NGOs), academia, research institutions, media, faith-based organizations, and religious, traditional, civic, and political leaders and their communities. The NSP aims at protecting and promoting human rights, ethics, and equity; adapting the strategy and targets at country level, with global collaboration; and integrated, patient-centred TB care and prevention.

The NSP will guide the design and implementation of targeted interventions towards ending the TB epidemic and ensure that all efforts are aligned to the Government of Zambia's Vision of being a middle-income country by 2030 (8th National Development Plan and the NHSP 2022–2026).

4.2 Vision, Mission, Goal, and Impact of the NSP

Vision	Contribute to Zambia's Vision 2030 of a healthy, prosperous, middle-income country that has zero deaths, disease, and suffering from tuberculosis
Mission	Provide equity of access to cost-effective, quality-assured TB services as close to the family as possible
Goal	End TB by 2030.
Impact	By 2026: • TB incidences decrease from 319 to 160 per 100,000 population. • Reduce TB deaths from 81 to 40 per 100,000 population. • Reduce families facing catastrophic due to TB. (*The value will be determined during the life of this NSP after results of the "out of Pocket study are out*) • Reduce the proportion of people with leprosy diagnosed with grade-2 disability from 70% to less 10%.

4.3 Guiding Principles

The guiding principles underlying the plan implementation are:

1. Government leadership, stewardship, and accountability with monitoring and evaluation by all partners.
2. Strong coalition with civil society organizations and communities so that they are engaged in the design delivery, monitoring and evaluation of TB care and support services, human rights violations, and stigma.
3. Working in partnership with other state departments and ministries in addressing social determinants of health that may worsen the TB problem in the country. These ministries include Home Affairs, Community Development and Social Welfare, Mines, Agriculture, Housing and Infrastructure Development, and Justice.
4. Align the strategy and targets with the National Health Strategic Plan, the Global End TB Strategy, and the United Nations Sustainability Development Goals (Goal 3: Good health and well-being for people).
5. Develop the strategy, interventions activities, and targets based on the results of the population- based TB prevalence survey, DRS, Estimates from time modelling, findings from independent program review, Epi review and stakeholders' consultations.
6. Develop interventions and activities based on the principles of primary health care.
7. Fostering accountability to the Government, funding partners, and the communities served.
8. Removal of human rights, gender, and related barriers as a key for the country's goal of reaching all, especially the key and vulnerable groups.
9. Community, Human Rights and Gender (CRG) assessment and TB stigma assessment results will be used to establish baselines and evidence to support CRG interventions.
10. Know the true burden of TB through conducting the second National TB Prevalence Survey

4.4 Major Focus Areas

This NSP will contribute towards achieving the National Health Strategic Plan (2022-2026) goals and targets which are geared towards the elimination of TB and zero leprosy disability in Zambia and contribute to the attainment to the Global Goal of Ending TB:

The NTLP will focus on the following areas:

1. Increase TB case detection for DS-TB and DR-TB in children, adolescents, and adults by implementing and scaling up quality improvement approaches in TB case finding at facility and community levels
2. Expand a TB diagnostic network to all under serviced areas.
3. Strengthening linkages between communities and facilities
4. Maintain high treatment success rate through the provision of quality-assured treatment for all cases, including drug-resistant TB, with patient support.
5. Sustain a countrywide implementation of TB/HIV collaborative activities including TPT in PLHIV.
6. Address and expand interventions for other comorbidities including risk factors for TB such as undernutrition, diabetes, alcohol misuse.
7. Strengthening of community response through enhanced collaboration and coordination of the CSOs, CBOs and people affected by TB and HIV in the design, delivery and monitoring and evaluation of TB care and support services, human rights issues, and TB Stigma
8. Enhance multisectoral accountability for TB.
9. Migrate paper-based data capturing and reporting to an electronic case-based system.

SECTION FIVE: OBJECTIVES AND STRATEGIC INTERVENTIONS

The new National Strategic Plan for Tuberculosis and Leprosy (2022-2026) has invested in evidence based and impactful interventions with ambitious targets. The interventions are organized in nine thematic areas which are formulated as objectives including:

1. To increase TB treatment coverage for DS-TB from 68% in 2020 to 86% by 2026
2. To increase the treatment success rate for DS-TB from 9% in 2020 to at least 95% by 2026
3. Increase the detection of DR-TB patients from 492 in 2020 to 700 by 2026.
4. Increase treatment success rate for DR-TB patients from 78% in 2020 to 85% in 2026.
5. Strengthen provision of integrated TB/HIV services at all levels by 2026
6. Scale up access of quality TB diagnostic services, including adoption of new technologies by 2026
7. Increase proportion of childhood TB among the notified TB cases from 7% in 2020 to 12% by 2026
8. Reduce number of people diagnosed with Multibacillary Leprosy amongst new cases from 70% to <10% and disability of already grade 2 from 70% to 10% by 2026.
9. Strengthen programme management, coordination, and accountability of TB services by 2026

Objective 1: To Increase TB Treatment Coverage from 68% in 2020 to 86% By 2026

Through this objective, the country plans to strengthen TB case-finding activities to increase TB treatment coverage to reach 86% in 2026. Various strategies to improve TB case-finding, such as improving health communication, strengthen social and behavioural approaches, engaging all care providers, community engagement, improving coverage of rapid diagnostic services, and strengthening the health system will be implemented. The programme will implement and scale up active case finding learning from ourselves and using programme quality and efficiency (PQE) approach, an initiative that combined quality improvement with facility-led active case finding that has been successfully implemented in several countries including Tanzania[13], Kenya[14], and Uganda[15]

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

[13] Wandwalo, E et al. "Enhancing tuberculosis case finding in Tanzania: implementation of a quality improvement initiative." Public health action vol. 10,2 (2020): 57-59. doi:10.5588/pha.19.0065

[14] Field guide on systematic screening of active TB in Kenya (2017) https://www.chskenya.org/wp-content/uploads/2017/09/Active-Case-Finding-Booklet-1.pdf (accessed on 14/01/2022)

[15] Karamagi E, et al. Improving TB case notification in northern Uganda: evidence of a quality improvement-guided active case finding intervention. BMC Health Serv Res. 2018 Dec 12;18(1):954. doi: 10.1186/s12913-018-3786-2. PMID: 30541533; PMCID: PMC6292080

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased TB treatment coverage from 68% in 2020 to >86% by 2026 ii. Increased contribution of the private sector to TB case notification from 2% to 3% by 2026 iii. Increased contribution of community interventions to TB case notification from 4% to 5% by 2026 iv. TB contact investigation coverage among under five contacts increased from 80% in 2020 to at least 100% by 2026. v. Increased proportion of TB patients notified through contact investigations from 2% in 2020 to 5% in 2026.	1.1. Improve case detection by expanding case finding to all clinical settings	1.1.1. Introduce newer diagnostic tools in clinical settings 1.1.2. Increase access to WHO Recommended rapid Diagnostics (WRD). 1.1.3. Ensure all diagnosed TB patients are notified and reported 1.1.4. Implement and scale up active case finding in clinical settings including activation of sites to perform ACF using PQE approach. 1.1.5. Build capacity and improve skills for TB screening and diagnosis among health workers 1.1.6. Conduct bi-directional screening for TB and COVID-19 1.1.7. Improve access to imaging
	1.2. Involve all care providers operating outside the NTLP network in TB case detection and management	1.2.1. Strengthen coordination of PPM at national level including the PPM sub-working group for PPM oversight 1.2.2. Scale-up the number and diversity of private providers contributing to referral of presumptive TB cases; diagnosis and provision of treatment support to contribute to national goals for TB case detection and treatment success 1.2.3. Improve Monitoring and Evaluation to generate evidence of PPM-TB performance.
	1.3. Strengthen TB services for high-risk groups	1.3.1. Integrate TB screening in high-risk populations (DM, Nutrition services, elderly, boarding schools, and among alcohol and drug abusers). 1.3.2. Improve active case finding and TB services in correctional facilities 1.3.3. Improve active case finding and TB services in mining sector 1.3.4. Conduct annual screening of health workers for TB 1.3.5. Conduct contact investigation to all contacts of TB patients
	1.4. Implement differentiated case finding approaches	1.4.1. Classify areas of high, medium, and low TB burden 1.4.2. Design appropriate activities for each level.
	1.5. Community Engagement	1.5.1. Engage the community to raise awareness about the rights of people affected by TB. 1.5.2. Strengthen collaboration mechanisms between NTLP and CBOS, CSOs, and NGOs to inform the design, improve quality, accessibility, and acceptability of community TB services at central level and to monitor and evaluate TB

Expected Strategic Outcomes	Strategic Interventions	Major Actions
		care and support services, human rights violations, and TB stigma. 1.5.3. Engage formal CHPs and community actors to deliver community-based TB (CBTB) care including active case finding and contact investigation and treatment adherence support. 1.5.4. Conduct community awareness raising, social mobilization, advocacy, and linkage to services
	1.6. Engage other government ministries and departments in TB prevention, care, and support.	1.6.1. Review and revise the Legal framework for engagement of MOH and other departments and ministries to strengthen TB multisectoral TB services. 1.6.2. Implement work wellness policy that includes TB and addresses stigma
	1.7. Scale up and strengthen cross border TB initiatives (CBI).	1.7.1. Strengthening partnership between border district and health facilities with neighbouring countries.

Objective 2: To Increase the treatment success rate for DS-TB from 90% in 2020 to at least 95% by 2026

Ensuring high completion rates are crucial interventions to help accelerate a fall in TB incidence and mortality rates towards TB elimination by 2030 is a focus of this NSP. Prior to COVID 19 interruptions the programme reported a high treatment success rate, reaching over 90% for susceptible TB in 2019. Loss to follow up remains a challenge especially among the previously treated TB patients which as high as 6%. Rate of not evaluated TB patients should drop to zero. Thus, this objective has been designed to address the existing gaps in the treatment including mitigating the COVID 19 effects.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. The Proportion of TB patients diagnosed and not started on treatment (initial loss to follow up) reduced from 28% to <5% by 2026 ii. Mortality among TB patients reduced from 5% to <3% by 2026	2.1. Reduce loss to follow up and unevaluated outcomes	2.1.1. Improve follow up through management of appointment system using digital tools. 2.1.2. Accelerate the scale up of Electronic Health Management system 2.1.3. Improve adherence counselling and peer led support 2.1.4. Improve access to services through TB mobile services and opening of new treatment facilities, and rolling out DSD 2.1.5. Improve cross-border collaboration

Expected Strategic Outcomes	Strategic Interventions	Major Actions
iii. Increased TSR of notified TB patients from 89% in 2020 to >95% by 2026.		2.1.6. Enhance treatment supporters and community management of patients 2.1.7. Enhance family treatment supporters. 2.1.8. Raise awareness about the rights of people affected by TB. 2.1.9. Introduce community-led monitoring to identify barriers to access and reduce loss to follow up
	2.2. Reduce mortality	2.2.1. Enhance multidisciplinary approach in the management of DS-TB Patient 2.2.2. Improve evidence-based intervention (through mortality reviews)
	2.3. Promote nutrition support	2.3.1. Link all TB patients to social welfare support 2.3.2. Promote education on nutrition to the patients (educational talks, leaflets etc.) 2.3.3. Conduct nutritional assessments during TB investigation, at a time of treatment initiation and at during treatment. 2.3.4. Raise awareness about the rights of people affected by TB. 2.3.5. Introduce community-led monitoring to identify and overcome barriers to nutritional and other social welfare support services 2.3.6. Conduct community-led awareness and advocacy on social welfare support for people with TB
	2.4. Ensure appropriate TB treatment for all detected patients.	2.4.1. Sustain provision of adult and paediatric quality-assured formulations for all TB patients 2.4.2. Strengthen active TB drug safety monitoring and management (aDSM) 2.4.3. Introduce new therapies 2.4.4. Implement eLMIS for TB drugs 2.4.5. Improve DS-TB training for health care providers. 2.4.6. Strengthen Diagnosis, and Management of NTMs (Treatment protocols and Job aids 2.4.7. Develop Post TB care, rehabilitation, and palliation package 2.4.8. Ensure uninterrupted supply for TB medicines 2.4.9. Raise awareness about the rights of people affected by TB. 2.4.10. Introduce community-led monitoring to identify and overcome barriers to TB care services, e.g., drug stock outs 2.4.11. Conduct community awareness and advocacy to ensure access to the latest tools and technologies for quality TB care services for all.

Objective 3: Increase the detection of DR-TB patients from 492 in 2020 to 700 by 2026

Zambia is among the high burden MDR-TB countries as categorized by WHO in 2021 despite the recent drug resistant survey showing a reduction of DR-TB burden. In 2020 only 18% of the estimated people with DR TB were detected. During the previous NSP, GeneXpert machines were scaled up, supply chain for the cartridges improved and integrated sample referral was initiated. This objective is focusing on finding and treating all MDR-TB patients using new and effective diagnostics and putting them to quality all oral treatment regimens.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased MDR- TB treatment coverage from 20% to 80% by 2026.	3.1. Scale up clinical capacity to detect DR-TB.	3.1.1. Build Capacity of clinicians and nurses in DR-TB diagnosis 3.1.2. Develop appropriate training materials, job aids and data collecting tools
ii. Increased proportion of MDR TB patients with fluoroquinolone DST (second line DST) from 21% to 100% by 2026. iii. Increase proportion of DR-TB patients who are failing treatment tested by Whole Gene Sequencing from 0% to 50% by 2026. iv. DR-TB patients whose contacts are screened for active TB increased from 50% to 100% by 2026.	3.2. Improve active contact tracing in households of DR TB patients.	3.2.1. Support contact investigation for all confirmed RR/MDR- TB cases, also leveraging community-based ACF service, and linkages to services 3.2.2. Engage the community to raise awareness about the rights of people affected by TB. 3.2.3. Introduce community-led monitoring to identify and overcome the gaps in household contact tracing of people with MDR/RR-TB.

Objective 4: (DR-TB Treatment): Increase treatment success rate from 78% in 2020 to 85% in 2026

Through this objective the programme will strengthen decentralized DR-TB management by ensuring that all notified DR-TB patients are started on treatment and provided treatment monitoring including toxicity monitoring (tests for renal, liver, thyroid, ECG, and other tests). Scale-up of injection free regimens require 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 ZAMRA.

Central to attaining sustained high treatment success rate will be to continue to provide social support to all DR-TB patients including provision of nutrition support and transport refund and continue supporting community DR-TB nurses who support DR-TB patients adhere to their prescribed medicines.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
4.1. Sustain MDR-TB linkage to treatment at 100% by 2026. 4.2. Increased treatment success rate for Drug resistant TB from 78% in 2018/19 to >85% in 2026. 4.3. Increased proportion of MDR-TB patients receiving nutritional support from 80% in 2020 to 100% by 2026.	4.1. Expand and strengthen capacity for treatment of DR-TB	4.1.1. Enhance multidisciplinary approach in the management of DR-TB Patient, including community-based support and stigma reduction. 4.1.2. Enhance decentralization of DR-TB management 4.1.3. Strengthen active TB drug safety monitoring and management (aDSM) 4.1.4. Introduce new treatment regimen that may be approved by WHO in the course implementing this NSP 4.1.5. Introduction of electronic patient recording and monitoring systems. 4.1.6. Conduct community awareness and advocacy for new treatment regimens of DR TB.
	4.2. Improve the social welfare of MDR/RR-TB patients	4.2.1. Provide social protection support to MDR/RR TB patients 4.2.2. Introduce community-led monitoring to identify and overcome barriers to nutritional and other social welfare support services for people with MDR/RR-TB.
	4.3. Reduce loss to follow up and unevaluated outcomes	4.3.1. Improve follow up through management of appointment system (data management e.g., electronic platforms) 4.3.2. Improve access to services through TB mobile services and opening of new treatment facilities 4.3.3. Sustain community treatment supporters for MDR/RR-TB patients. 4.3.4. Engage the community to raise awareness about the rights of people affected by TB. 4.3.5. Introduce community-led monitoring to identify barriers to access and reduce loss to follow up
	4.4. Enhance Patient centred care/Optimization of quality of care	4.4.1. Increase capacity of health care providers and community providers in patient centred care, including gender sensitive care and medical ethics. 4.4.2. Increase access to clinical monitoring services e.g., safety labs and others

Expected Strategic Outcomes	Strategic Interventions	Major Actions
		4.4.3. Build capacity of HCW, including CHWs in management of DR-TB patients 4.4.4. Assess mental health status and provide psychological counselling 4.4.5. Develop Post TB care, rehabilitation, and palliation package in collaboration with affected TB communities. 4.4.6. Improve on recording of patient clinical data (paper based and electronic based). 4.4.7. Engage the community to raise awareness about the rights of people affected by TB. 4.4.8. Introduce community-led monitoring to identify barriers and challenges and to ensure the availability, accessibility, acceptability of quality TB care and support services that are free of stigma and human rights violations for all. 4.4.9. Identify and make programmatic and services improvements to optimize the quality of care, based on the CLM data.
	4.5. Enhance management of contacts of DRTB patients.	4.5.1. Conduct contact investigation to detect those infected and those at risk, also leveraging a community-based system

Objective 5: Strengthen provision of integrated TB/HIV services at all levels by 2026

Zambia sustained high performance of TB-HIV services provision regarding HIV testing among TB patients and provision of ART in those who test HIV positive. HIV prevalence among TB patients continued to go down, reaching 39% in 2020 from 60% in 2015. This fall in co-infection rate is attributed to the exponential increase in persons living with HIV who initiate TB preventive therapy resulting of fewer TB cases among PLHIV, as well as the high completion rate of treatment as well as other HIV interventions such as high antiretroviral therapy uptake and viral suppression.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased TB patients who have documented HIV status from 93% in 2020 to 100% by 2026. ii. Increased treatment success rate for the TB/HIV co-infected from 88% in 2020 to >95% in 2026 iii. Increased coverage of TPT among eligible PLHIV from 68% in 2020 to over 95% by 2026. iv. Increased completion rate of TPT among PLHIV from 80% in 2020 to >90% by 2026.	5.1. Strengthen TB/HIV collaboration at all levels	5.1.1. Strengthen national, Provincial and District-levels coordination of TB/HIV services 5.1.2. Strengthen TB/HIV collaboration at health facility level 5.1.3. Strengthen TB/HIV collaboration at community level with active engagement of affected TB and HIV communities in the design, delivery and monitoring and evaluation of TB care and support services, human rights violations, and stigma.
	5.2. Intensify HIV testing, screening for nutritional status, diabetes, and mental disorders in presumptive and confirmed TB patients and offer high-quality patient-centred HIV care for HIV co-infected TB patients.	5.2.1. Build capacity of health care providers in the provision of the integrated TB and HIV care package. 5.2.2. Ensure 100% linkage to TB and HIV treatment and care for all TB/HIV co-infected patients 5.2.3. Engage communities in raising awareness about the integrated TB and HIV care package and the rights of people affected by TB and HIV.
	5.3. Reduce the burden of TB in PLHIV and people at high risk of HIV infection	5.3.1. Support early case detection, treatment, and prevention of TB in PLHIV 5.3.2. Ensure 100% initiation of TPT for all the eligible PLHIV 5.3.3. Support patients on TPT to complete treatment 5.3.4. Engage TB affected communities in raising awareness about TB among PLHIV, the TB HIV care package and the rights of people with TB and HIV.
	5.4. Enhance implementation of TB infection control measures at various levels of the health care system.	5.4.1. Improve health care workers' knowledge and practices in IPC 5.4.2. Enhance facility-level infection control by improved administrative and environmental interventions and ensure availability and rational use of PPE. 5.4.3. Support institutionalization of TB infection control through strengthening the functionality of the TB infection control committees 5.4.4. Strengthen monitoring of TB infection control indicators at various levels.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
	5.5. Improve uptake of TPT for eligible HIV negative population and people with exposure to silica.	5.5.1. Increase provision of TPT to eligible HIV negative individuals and people with exposure to silica at all facilities 5.5.2. Increase demand for TPT at community level 5.5.3. Improve access to latent TB testing 5.5.4. Improve commodity security for TPT among the eligible HIV negative population and people with exposure to silica. 5.5.5. Strengthen monitoring of TPT cascade in the HIV negative population and people with exposure to silica. 5.5.6. Introduce community-led monitoring to identify those eligible for TPT and monitor and ensure access 5.5.7. Engage communities in raising awareness about TPT, TPT eligibility and the rights of people affected by TB.

Objective 6: Scale up access of quality TB diagnostic services, including adoption of new technologies by 2026

This NSP will focus on scaling up access and availability of quality TB diagnostic services, capacity building, quality assurance and information system strengthening. Deliberate efforts will be made to improve the availability of diagnostics such as increasing the number of GeneXpert machines, rolling out stool testing using GeneXpert and maintaining an uninterrupted supply of GeneXpert cartridge and laboratory reagents. By end of 2020, there were 276 GeneXpert machines for routine TB diagnosis services. Additionally, the programme will scale up access to TB LAMP and remain open to the inclusion of other molecular diagnostics such as TrueNat and the ROCHE cobas® MTB. The programme will also prioritize the rehabilitation of provincial and district laboratories and capacitating them with qualified human resources who received appropriate training on key operations such as culture and DST and the use of new molecular technologies.

Moreover, Zambia is implementing multi disease testing on point of care machines. In this NSP the NTLP will continue to leverage on the investment in multi disease testing and Covid-19. This investment includes support for the integrated courier, placement of GeneXpert machines, infrastructure upgrade etc. This will benefit the program to expand access to WRD.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased coverage of TB diagnostics services from 559 in 2020 to 700 by 2026. ii. Increased the proportion of laboratories participating in EQA for microscopy from 49% in 2020 to 100% in 2026. iii. Increased proportion of laboratories participating in EQA for GeneXpert from 33% in 2020 to 100% in 2026. iv. Increased proportion of notified new and relapse TB cases with bacteriological confirmation from 51% in 2020 to 80% by 2026. v. Increased proportional of notified new and relapse patients diagnosed using WHO recommended rapid test from 44% in 2020 to 100% by 2026. vi. Increased proportion of public health facilities (HC III and HC IV) offering WRD (GeneXpert, TB LAMP and	6.1. Expand coverage for TB diagnostic services	6.1.1. Increase the TB diagnostic sites from 559 to 700 by targeting 80 private and public health facilities that have existing laboratories but do not offer TB laboratory services as well as newly constructed Mini Hospitals 6.1.2. Transition to FM microscopy at 58 diagnostic sites that still using light microscopy for follow up. 6.1.3. Expand coverage of GeneXpert network 6.1.4. Expand the use of TB-Lamp in 265 Health facilities that have no Xpert 6.1.5. Expand the use of LF-LAM according to WHO recommendations. 6.1.6. Enhance the use of extra pulmonary specimens on the Gene Xpert platforms. Develop a comprehensive implementation plan for TB diagnostic tools. 6.1.7. Engage the community in raising awareness about the latest diagnostics and the rights of people affected by TB. 6.1.8. Introduce community-led monitoring to monitor and ensure access to the latest diagnostics, to identify gaps and to ensure access.
	6.2. Strengthen the integrated sample referral system	6.2.1. Increase coverage of courier services and frequency of specimen pickup 6.2.2. Improve and reinforce specimen tracking and results feedback
	6.3. Strengthen culture and drug susceptibility testing	6.3.1. Increase access to Culture, 1st and 2nd line DST for all previously treated including relapses and for RR patients 6.3.2. Expand LPA services in the diagnostic network 6.3.3. Introduce and scale up the use of low and moderate complexity WRDs for diagnosis and detection of resistance to RIF, INH and FQ 6.3.4. Build capacity in culture/DST and sequencing technologies.
	6.4. Improving data management and connectivity for patient care and TB surveillance	6.4.1. Expanding the use of DISA and DHIS2 to the TB network.
	6.5. Strengthen the quality of Laboratory services	6.5.1. Expand EQA coverage for all TB diagnostic tools 6.5.2. Strengthen results feedback from culture labs.
	6.6. Strengthen Laboratory	6.6.1. Ensure all the internationally accredited laboratories and all nationally certified

Expected Strategic Outcomes	Strategic Interventions	Major Actions
others) services from 46% in 2020 to 80% by 2026. vii. Increased proportion of notified bacteriologically confirmed TB cases with DST for at least rifampicin from 88% in 2020 to 100% by 2026.	Quality Management System (LQMS)	laboratories include TB tests on their scope of accreditation 6.6.2. Maintain accreditation and certification at all accredited and certified laboratories.
	6.7. Enhance management of laboratory supplies and equipment	6.7.1. Improve equipment servicing and maintenance 6.7.2. Strengthen laboratory logistics and supply management.
	6.8. Strengthen biosafety and infection Prevention in TB laboratories	6.8.1. Develop and disseminate the National TB Laboratory Safety Manual 6.8.2. Conduct biosafety and biosecurity risk assessment for the TB lab network.
	6.9. Improve Human Resource capacity for Laboratory	6.9.1. Increase staffing at culture labs 6.9.2. Build the capacity of laboratory staff in TB testing.
	6.10. Strengthen the structure and coordination of TB Diagnostic Network	6.10.1. Restructure the laboratory network to a patient-centred, coordinated diagnostic network with participation and representation from networks of people affected by TB 6.10.2. Build capacity and mechanisms for responsive technical assistance.
	6.11. Develop a research agenda for the TB lab network.	6.11.1. Develop interventions that result in effective policies, better design of TB laboratory Network, and more efficient methods of diagnostics service delivery. 6.11.2. Build capacity of the NTRL to conduct Operational Research.

Objective. 7: Increase proportion of childhood TB among the notified TB cases from 7% in 2020 to 12% by 2026

There has been an increase in TB notification among children aged below 15 years in the last 3 years (2017-2020) by an average of 8.4%. In 2020, TB notification among children (0-14 years) represented 6.8% of the overall TB notifications. In this NSP the programme targets to increase the proportion of childhood TB among the notified TB cases to reach 12% by 2026. The ratio of children aged 0-4:5-14 years has continuously increased from 0.53 in 2016 to 0.98 in 2020.However, the ratio is lower than the WHO recommended ratios at 1.5 – 3.1. Under-diagnosis and under-reporting in some districts are a major issue in the lower age group of 0-4 years. This NSP will address the gap in diagnosis of 0-4 years. Furthermore, this NSP will also prioritize adolescents (10 – 19 years) as a group that is at risk of TB and represent an important population for TB control considering that the 2020 epidemiological assessment showed the gap between the estimated incidence and the TB notifications was wide. Adolescents often

represent with infectious TB and frequently have multiple contacts in congregate settings such as schools and other educational institutions.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased proportion of childhood TB (<15years) out of the total notifications from 7% in 2020 to 12% by 2026. ii. Increased Treatment Success Rate of notified Childhood TB patients from 90% in 2020 to >95% by 2026. iii. Increased proportion of eligible >5 years close contacts of TB patients put on TB preventive therapy increased from 28% in 2020 to 50% by 2026.	7.1. Increase % of Childhood and Adolescent TB cases.	7.1.1. Build capacity of healthcare workers including CHWs to diagnose and manage childhood tuberculosis including strengthening the use of stool based Xpert testing, especially for kids under 5 years old. 7.1.2. Integrate TB services to all other childhood and adolescent health services in the facilities and communities 7.1.3. Engage the communities to raise awareness of childhood and Adolescent TB within the framework of the National ACSM strategy. 7.1.4. Conduct extensive TB-CI to include index children and adolescents. 7.1.5. Integrate Adolescents in childhood TB services.
	7.2. Improve Treatment outcome of Childhood and Adolescent TB cases.	7.2.1. Develop approaches for family involvement with support from CHWs 7.2.2. Expand on nutritional support in childhood TB. 7.2.3. Introduce community-led monitoring to monitor and ensure access to nutritional support.
	7.3. Improve data management for Childhood TB	7.3.1. Establishing the burden of TB among Children and Adolescents at provincial and district levels 7.3.2. Account for treatment outcomes in childhood TB. 7.3.3. Introduce shorter paediatric regimen
	7.4. Improve coverage of TPT.	7.4.1. Strengthen Access to TPT among children 7.4.2. Engage communities to raise community awareness on IPT and the rights of people affected by TB 7.4.3. Introduce community-led monitoring to monitor and ensure access to TPT among children and adolescents

Objective 8: To reduce the number of people diagnosed with Multibacillary Leprosy amongst new cases from 60% to <10% and disability of already grade 2 from 70% to 10% by 2026

Zambia has reached the Leprosy elimination target according to WHO recommendation of less than 1 case/10,000 population since 2000. However, there are still some pockets in the country where the prevalence of leprosy is relatively high and makes it a public health concern never to be neglected. In 2019, 226 leprosy cases were detected of which 14 (6%) were children and 188 (83%) were multibacillary. In 2020 leprosy detection performance increased by 11% compared to 2019. In this NSP the programme aims to reduce the number of people diagnosed with Multibacillary Leprosy amongst new cases to <10% and disability of already grade 2 from 70% to 10% by 2026. This will be achieved by building healthcare workers' capacity to detect all patients and cure them by using Multidrug therapy (MDT). In addition, uninterrupted supply of anti-TB Leprosy medicines is a priority of the program. In 2020 the programme and its partners developed new leprosy guidelines and conducted the first ever leprosy symposium.

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Proportion of leprosy patients presenting to health facilities with Grade 2 disability at the time of diagnosis reduced from 70% in 2020 to 10% by 2026. ii. Proportion of contacts of Leprosy patients given single dose Rifampicin preventive therapy increased from 0% in 2020 to 50% by 2026. iii. Leprosy household contact tracing increased from 0% in 2020 to 50% by 2026. iv. Increased proportion of all forms of leprosy patients who successfully complete treatment from 75% in 2020 to over 90% by 2026. v. Percentage of persons affected by leprosy accessing self- care support to be at 50% by 2026.	8.1. Strengthen coordination and implementation of Leprosy interventions at all levels.	8.1.1. Develop and monitor Leprosy implementation plans at all levels 8.1.2. Mobilize resource for Leprosy activities 8.1.3. Building capacity of HCWs and CHWs to diagnose Leprosy cases early and manage accordingly 8.1.4. Conduct contact tracing of all index cases with MB leprosy, in all districts.
	8.2. Carry out case-based surveillance and active case - finding of leprosy at health facility and community level.	8.2.1. Increase provision of single dose rifampicin from the current 0% to over 80% by 2026 8.2.2. Organize active case finding campaigns in areas reporting high cases i.e., where such campaigns are more likely to be cost effective in terms of higher chances of finding cases 8.2.3. Community awareness raising emphasizing the importance of the prophylaxis 8.2.4. Conduct Community awareness raising of signs and symptoms of leprosy 8.2.5. Develop Leprosy posters adding photos of affected persons

Expected Strategic Outcomes	Strategic Interventions	Major Actions
		8.2.6. Conduct targeted leprosy screening campaigns in high endemic districts and hidden hotspots (border communities).
	8.3. To Prevent early development of disability among leprosy patients	8.3.1. Conduct elimination campaigns in the districts where Leprosy prevalence is high 8.3.2. Addressing disability grade 2 including self-care interventions.
	8.4. To priorities PEP in the endemic districts	8.4.1. Conduct active case finding 8.4.2. Conduct targeted campaigns 8.4.3. Conduct household contact investigation 8.4.4. Scale-up PEP.
	8.5. To improve the lives of Leprosy communities.	8.5.1. Identify former Leprosy patients and integrate them with new or existing leprosy cooperatives 8.5.2. Start Income Generation Activities (IGAs) to remove dependence syndrome.

Objective 9: Strengthen programme management, coordination, and accountability of TB services by 2026

Effective implementation of the strategic plan requires not only good leadership and management capacities but also appropriate technical expertise. Thus, in the next five-year priority will be to build a resilient Programme through institutional capacity building at national and sub-national levels. To ensure Program performance is well monitored and intended results are achieved, a common understanding must be built among all stakeholders including the cooperating partners and implementing partners as well community-based organizations. The partners' coordination will be enhanced to involve them in planning and during the implementation. Coordinative platforms will be strengthened and means of sharing information expanded including updating the Program website. 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 champion the implementation of a multi-sectoral framework approach (MAF) currently under development. Within the framework MAF-TB there will be a steering committee to support the programme in mobilizing resources. Furthermore, the programme will ensure skilled human resource availability at all levels and ensure coordinated efforts designed to place TB higher on the political agenda through Advocacy Communication and Social Mobilization (ACSM).

Below are expected strategic outcomes for this objective, strategic interventions and major actions that will be implemented during the five years of the NSP to achieve the expected outcomes.

Expected Strategic Outcomes	Strategic Interventions	Major Actions
i. Increased proportional of people with knowledge about TB symptoms from 90% in 2018 to 95% by 2026. ii. Implementation of national multisectoral accountability framework for the TB response.	9.1 Develop and reinforce the technical and managerial capacities at Central Unit and subnational level	9.1.1 Build technical and managerial capacity of health care workers at all levels, including CHWs. 9.1.2 Develop human resources management strategy for retention of trained staff for the program
	9.2 Strengthen coordination between the NTLP and implementing and cooperating partners and the local private cooperating partners	9.2.1 Enhance coordination between the NTLP and collaborating partners through joint planning, implementation monitoring and evaluation including representatives from affected communities who have been engaged in CLM and representatives from KVPs
	9.3 Ensure resource mobilization	9.3.1 Sensitize high-level political leaders, development partners, NGOs, including other CSOs, and the private sector, to support TB and Leprosy control in the country 9.3.2 Conduct advocacy for resource mobilization 9.3.3 Develop funding proposals to mobilize additional resources. 9.3.4 Establish and support stop TB partnership activities to raise political leaders' commitment
	9.4 Improve the monitoring and evaluation of the programme including operational research.	9.4.1 Ensure quality of data 9.4.2 Strengthen data Analysis and use 9.4.3 Roll out TB electronic information system for both drug-susceptible, drug-resistant TB and TPT 9.4.4 Conduct supportive supervision and mentorship at all levels 9.4.5 Conduct TB programme reviews and implement performance improvement 9.4.6 Develop and implement operational research 9.4.7 Engage communities to raise awareness about the rights of people affected by TB through various channels including community led monitoring (CLM) platform such as one impact. 9.4.8 Support the scale-up of appropriate CLM to identify to receive feedback

		in real time from TB patients on the quality of TB care provided to them. 9.4.9 Conduct the TB stigma assessment to understand the levels of TB stigma that are preventing access to care and support services and develops a TB stigma elimination action plan. 9.4.10 Conduct the CRG Assessment to identify the specific human rights, gender, and community engagement barriers, hindering the TB response and develop a costed operational plan to overcome these barriers.
	9.5 Ensure accountability of TB and leprosy Programme at all levels.	9.5.1 Implement Multisectoral accountability framework for TB(MAF-TB) 9.5.2 Conduct quarterly internal auditing and annual stock taking 9.5.3 Develop a gender equality strategy for equality in the NTLP. 9.5.4 Engage communities to raise awareness about the rights of people affected by TB through various channels including community led monitoring (CLM) platform such as one impact. 9.5.5 Systematically collect and use the CLM data through appropriate digital platform for enhanced accountability in TB care. 9.5.6 Train NTLP staff on the prevention and fight against corruption and grant oversight.
	9.6 Ensure coordinated efforts designed to place TB higher on the political agenda (ACSM)	9.6.1 Coordinated efforts designed to place TB higher on the political agenda. 9.6.2 Strengthen government commitment to implement or improve TB related policies. 9.6.3 Mobilizing political commitment and resources for TB. 9.6.4 Increase community awareness on TB and available TB services. 9.6.5 Combat stigma and discrimination 9.6.6 Empowering people affected by TB

SECTION SIX: IMPLEMENTATION PLAN

An action plan for implementing the objectives and strategic interventions outlined in Section 5 has been developed. The plan indicates the objectives, interventions, activities, sub-activities, and timeframe. Detailed action plans for the five years (2022-2026) are shown in Annex III.

SECTION SEVEN: TECHNICAL ASSISTANCE PLAN

Technical assistance (TA) support to the programme seeks to provide expert knowledge and transfer of skills to staff at all levels of the health system. It also facilitates the speedy completion of tasks. The NTLP will require support to accomplish critical technical tasks to enhance programme quality and accelerate the attainment of goals and set targets. The TA can be external or local, or a combination of both. The programme will engage consultants in various technical areas, including TA to support finding the missing TB cases, developing a TB Preventive Therapy surge plan, and digitizing TPT data capture and reporting through the Global Fund Strategic Initiative. TA support will also be required to develop training materials for DS-TB, DR-TB, Childhood TB, advanced Clinical management of TB, expansion of the diagnostic network, laboratory data for decision making and culture, and the DST processes. In the life of this NSP, the programme will undertake the second National TB Prevalence Survey; as such the NTLP will procure the services of a statistician, an epidemiologist, and a Data manager. Other research studies, especially on Drug-resistant, will demand the services of skilled consultants to help the NTLP execute these studies. For the first time, the programme has placed a premium on implementing Community, Human Rights, and Gender (CRG) sensitive interventions to root out any barriers to accessing TB services. Stigma, human rights, and gender assessment will inform the country areas that require improvements. The annual Green Light Committee (GLC) and Global Drug Facility (GDF) Technical assistance mission missions will continue. The Technical Plan is in Annex I.

SECTION EIGHT: MONITORING AND EVALUATION

During the implementation of this NSP, the programme will be monitored through key inputs, process, output, and outcome and impact indicators. The overall responsibility for monitoring and evaluation will rest with the National TB and Leprosy Control Programme M&E Unit under the leadership of the Programme Manager. The NTLP M&E Unit will feed into the main M&E system of the Ministry of Health. The NTLP Central Unit, through the M&E focal person assisted by a team of M&E officers within the Ministry of Health, including those seconded to the programme by various partners, will be responsible for the day-to-day coordination and monitoring, and evaluation of TB and Leprosy activities in both the public and private sectors.

Each of the ten provinces and 116 districts will continue to be supported to enhance the monitoring and supervision of operational activities regularly and systematically. The M&E framework will help measure the progress in implementing the interventions and activities outlined in this plan and assess progress in achieving the intended goal, objectives, and set targets.

The NTLP will coordinate all stakeholders involved in TB control activities at national and sub-national, to ensure optimum utilization of available M&E resources for enhanced monitoring and evaluation of the TB and Leprosy response. This coordinating structure will oversee the capacity development of M&E staff at all levels, data quality assurance, data analysis, and use, plus reporting of data horizontally within the health facility and vertically to a higher level. M&E will include reviews of; (a) Programme goals and objectives, (b) Coverage of interventions in comparison to targets (c) track status of achieving indicator targets, and (d) monitor approved activities and assess how well they are being implemented. The reporting system is organized from the community to health centres, district, provincial, and national levels through the DHIS2. Currently, health facilities compile data on an excel sheet and submit it to the district level, where data is uploaded into the DHIS2 platform. In the life of this plan, the programme will roll out an electronic system countrywide using SmartCare and DISA for the laboratory data. TB medicines orders will be integrated into the main electronic logistic information management system. When a hundred percent coverage of the electronic system is achieved, data will be uploaded right at health facilities. People with credentials to access this information will view data in real-time across all levels.

A quarterly performance review meeting will be organized at the provincial level, during which performance data will be presented and discussed by the district stakeholders to identify gaps and interventions for better performance. Similar reviews will be organized at the district level monthly. Biannually data reviews, at the national level will be conducted. A mid-term evaluation will be conducted to adjust timelines and implementation strategies. The end-term review of this NSP will be conducted to inform a successor strategic plan. Specific and periodic programme evaluations, such as the annual Regional Greenlight Committee (rGLC) and Global Drug Facility (GDF) missions and other missions, will also be conducted. A process evaluation will assess the efficiency of the plan in terms of the quantifiable achievements of the output indicators. Process evaluation will be based on the information received and synthesized from the monitoring system. This will be the responsibility of the provincial, district health, and

health facility offices, with the active involvement of the provincial and district TB Coordinators, health facility TB focal persons, and health information officers.

The indicators for monitoring implementation; means, and frequency of monitoring these indicators; as well as sources of data, are illustrated in Annex II:

SECTION NINE: BUDGET PLAN

The costing for this National Strategic Plan (NSP) is based on activities defined and agreed on by various stakeholders during the development process. The activities of the stakeholders complement each other and will be coordinated, monitored, and supported by the Ministry of Health (MoH) through the NTLP. The NSP will be funded through several sources which include domestic funding from and the Government of the Republic of Zambia through the MOH and other sources within the country. Through the MAF-TB, it is expected that the private sector will contribute to the domestic TB financing. International funding will be mobilized from the traditional funding agencies such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the US Government through USAID and CDC, The World Health Organization, JATA, and other international funders. The NTLP will work with all stakeholders to ensure that all funding and activities for TB control in the next five years are aligned with the goals and objectives of this NSP (See table 9.1 for a summary budget of this NSP).

Table 9.1: Summary of TB and Leprosy NSP (2022-2026) Budget

	Frequency					
Objective	**2022**	**2023**	**2024**	**2025**	**2026**	**TOTAL (USD)**
1: To increase coverage from 68% in 2020 to 80% by 2026	10,989,610	5,780,559	4,701,075	7,136,315	2,407,342	31,014,901
2: Increase the treatment success rate for TB from 90% in 2020 to at least 95% from 2026	32,904,574	21,531,679	9,360,714	8,937,319	9,538,156	82,272,441
3: Increase the detection of DR-TB patients from 490 in 2020 to 700 by 2026.	1,180,312	1,166,507	1,189,837	470,689	480,102	4,487,447
4:(DR-TB Treatment): Increase treatment success rate from 78% in 2020 to 85% in 2026	4,700,895	3,699,449	2,205,863	2,249,980	2,294,980	15,151,167
5: Strengthen provision of integrated TB/HIV services at all levels by 2026	3,920,161	4,145,037	5,511,413	5,621,641	5,734,074	24,932,326
6: scale up access of quality TB diagnostic services, including adoption of new technologies by 2026	18,221,308	9,966,335	9,027,998	9,172,026	9,357,431	55,745,098
7: Increase proportion of childhood TB among the notified TB cases from 7% in 2020 to 12% by 2026.	4,770,967	4,454,065	1,928,702	1,967,276	2,006,622	15,127,632
8. To reduce the number of people diagnosed with Multibacillary Leprosy amongst the total number of new cases from 60% to <10% and disability of already grade 2 from 70% to 10% by 2026.	888,088	673,146	657,775	584,480	677,481	3,480,970
9: Strengthen program management, coordination, and accountability of TB services by 2026	8,097,198	10,828,075	5,608,200	3,698,341	6,132,019	34,363,833
TOTAL (USD)	**85,673,114**	**62,244,851**	**40,191,576**	**39,838,068**	**38,628,206**	**266,575,816**

ANNEX I: TECHNICAL ASSISTANCE PLAN

Sub-Activity Number	Sub-Activity	Terms of reference of the TA	Profile of the expert/consultant	The implementer of the intervention/activity	Timeframe of the TA	Estimated cost (USD)	Source of Funding
1. To increase TB treatment coverage from 68% in 2020 to 80% by 2026							
1.1.1.1.	Procure two consultants to support the programme in developing an implementation plan for finding the missing TB cases as well as activation of active case finding in clinical settings using a PQE model.		1 1nternational Consultant and 1 local consultant	NTLP	2022	46,706.61	The Global Fund
1.1.4.1.	Identify a local consultant to support scale up of case finding in health facilities using the PQE. model. The idea is to make TB case finding permanent and routine in all health facilities		1 Local Consultant		2022	46,573.69	TBD
1.1.5.5.	Develop TB Training materials including slides for DS-TB, DR-TB, and Childhood TB		1 Local Consultant		2022	15,524.56	TBD
1.2.1.4.	Revise the PPM action plan to incorporate new developments and baseline values and targets for key indicators		1 Local Consultant	NTLP	2023	7,714.04	TBD
1.2.1.5	Develop, translate, print, and distribute the PPM handbook with functions expected for various cadres of private providers		1 Local Consultant	NTLP	2023	7,762.28	TBD
1.2.3.10.	Conduct evaluation of PPM action plan.		1 Local Consultant	NTLP	2025	8,349.93	TBD
1.2.3.12.	Document and publish best practices on implementation of PPM in scaling up TB services in the private sector and quasi-governmental institutions.		1 Local Consultant		2025	16,572.51	TBD
1.3.1.2.	Develop, print, and distribute SOPs for TB services in PWIDs/Diabetes etc.				2022	7,762.68	TBD
1.3.3.1.	Determine the actual burden of TB among miners and families (prevalence study)		1 Local Consultant	NTLP and OHSI	2022	15,568.87	TBD
1.3.3.6.	Document and publish/disseminate best practices of excellence for Occupational Lung diseases and TB mobile TB clinic.		1 Local Consultant	NTLP and OHSI	2024	8,186.20	TBD
1.3.4.1.	Develop a policy guide and SOPs for annual screening of health workers		1 Local Consultant		2022	5,174.85	TBD
1.3.5.3	Develop, pre-test, print job Aids for contact investigation		1 Local Consultant		2022	7,762.28	TBD
1.5.2.1.	Develop QI and PI manual to guide implementation of TB services at the community level		1 Local Consultant	NTLP, Community Health Unit, QI, and QA departments	2022	10,378.25	TBD

Sub-Activity Number	Sub-Activity	Terms of reference of the TA	Profile of the expert/consultant	The implementer of the intervention/activity	Timeframe of the TA	Estimated cost (USD)	Source of Funding
1.5.3.1.	Develop QI and PI manual to guide implementation of TB services at community level		1 Local Consultant		2022	10,349.71	TBD
1.5.3.2.	Review Community TB, TB/HIV and DR-TB Operational Guide to incorporate new updates including gender, and human rights and linkage with HF QI and Community health policy guidelines		1 Local Consultant		2022	7,762.28	TBD
1.5.3.3.	Revise community TB, TB/HIV and DR-TB orientation package, TB job aids (including CHW handbook) and M&E tools based on updated Operational Guide		1 Local Consultant		2022	7,762.28	TBD
1.6.1.1.	Review and revise a coordinating framework for other departments and ministries.		1 Local Consultant		2023	8,075.88	TBD
1.6.2.1.	Develop/Revise TB workplace guideline and job aides		1 Local Consultant			8,075.88	TBD
2. To increase the treatment success rate for DS-TB from 90% in 2020 to at least 95% by 2026							
2.4.12.1	Conduct annual Global Drug Facility (GDF) TA mission		2 International Consultant	NTLP	Every year	117,711.41	TBD
3. Increase the detection of DR-TB patients from 492 in 2020 to 700 by 2026.							
3.1.1.6	Conduct Annual Green Light Committee TA mission		2 International Consultant	NTLP	Every year	117,711.41	TBD
3.1.2.1.	Develop appropriate job aids and data collecting tools for DRTB		1 Local consultant		2022	7,762.28	TBD
3.2.1.1.	Develop/Revise Job aides for DR-TB contact investigation		1 Local consultant		2022	5,174.85	TBD
4. Increase treatment success rate for DR-TB patients from 78% in 2020 to 85% in 2026							
4.4.2.1.	Develop Clinical management job aids- that include guidance on when safety labs should be done		1 Local consultant		2022	7,762.28	TBD
4.4.2.2.	Develop TB treatment protocols		1 Local consultant		2022	7,762.28	TBD
4.4.2.5	Evaluate new MDR-TB treatment regimens such as Bpal		1 1nternational Consultant and 1 local consultant	NTLP	2023	24,319.96	TBD
4.4.5.1.	Develop guidelines and management and palliation care package		1 Local consultant		2022	7,762.28	TBD
5. Strengthen the provision of integrated TB/HIV services at all levels by 2026							
5.1.1.1.	Develop TPT costed implementation plan and digitization of TPT data and capturing and reporting		1 1nternational Consultant and 1 local consultant	NTLP	2023	18,126.98	The Global Fund
6. Scale-up up access to quality TB diagnostic services, including the adoption of new technologies by 2026							
6.1.1.1.	Develop a costed diagnostic network expansion plan		1 International Consultant	NTLP and NRL	2023	11,582.24	TBD
6.3.4.5	Training laboratory staff in culture laboratories in Whole Genome Sequencing		1 International Consultant	NTLP and NRL	2023	12,418.32	TBD
6.5.1.1.	Engage a consultant to provide TA for quality improvement to reduce contamination rates, increase		1 International Consultant	NTLP and NRL	2023	9,979.82	TBD

Sub-Activity Number	Sub-Activity	Terms of reference of the TA	Profile of the expert/consultant	The implementer of the intervention/activity	Timeframe of the TA	Estimated cost (USD)	Source of Funding
	DST success rate, and completion of testing algorithms in line with national guidelines at all three culture laboratories						
7. Increase the proportion of childhood TB among the notified TB cases from 7% in 2020 to 12% by 2026.							
7.3.1.1.	Conduct a sub-national epidemiological assessment to understand the burden of TB in children and adolescents. In this assessment, a costed childhood Tb expansion plan will be developed which will also be based on WHO guidelines, and Shine Trial and TB speed studies		1 International Consultant and 1 Local Consultant	NTLP	2022	7,784.43	TBD
7.3.1.2.	Conduct clinical audits on TB deaths reported among children and adolescents		1 Local Consultant	NTLP	2022	7,784.43	TBD
7.3.1.4.	Conduct KAP study on TB among the adolescents in school and out of school adolescents		1 Local Consultant	NTLP	2023	16,151.76	TBD
8. Reduce the number of people diagnosed with Multibacillary Leprosy amongst new cases from 60% to <10% and disability of already grade 2 from 70% to 10% by 2026.							
8.1.2.1.	Conduct needs assessment for leprosy activities in all provinces		1 Local consultant		2022	15,524.56	TBD
8.2.4.1.	Develop IEC and distribute materials for leprosy elimination activities		1 Local consultant		2022	10,349.71	TBD
8.3.2.1.	Adapt Operational Manual for conducting Prevention of Disability (POD) and Self-care services at endemic districts.		1 Local consultant		2022	7,762.28	TBD
9.4.6.6.	Conduct a study to determine the true burden of Leprosy in Zambia		1 International consultant and 2 local consultants	NTLP	2023	13,084.80	TBD
9. Strengthen programme management, coordination, and accountability of TB services by 2026.							
9.2.1.6.	Conduct a mid-term review of the National TB and leprosy program		3 Local Consultants	NTLP	2023	41,165.03	TBD
9.2.1.12	Develop the New TB and Leprosy NSP 2027-31		1 International consultant and 2 Local Consultant	NTLP	2026	93,532.27	TBD
9.3.1.4.	Develop the New TB-HIV Global Fund Grant funding request		1 International consultant and 1 Local Consultant	NTLP	2023	83,468.32	TBD
9.4.1.5.	Conduct a National TB Prevalence Survey once in five years		3 International and 3 Local Consultants	NTLP	2023/2024	465,081.95	TBD
9.4.4.1.	Conduct Mid and End term Programme review		3 International and 3 Local Consultants	NTLP	2024, 2026	179,389.04	TBD
9.4.5.1	Conduct End Term review of the TB and Leprosy Programme		10 International and 5 local consultants	NTLP	2025	666,649.41	TBD
9.4.10.1.	Conduct CRG assessment to identify the specific human rights, gender, and community factors hindering the TB response		1 international and 1 local consultant		2023	31,211.55	TBD

Sub-Activity Number	Sub-Activity	Terms of reference of the TA	Profile of the expert/consultant	The implementer of the intervention/activity	Timeframe of the TA	Estimated cost (USD)	Source of Funding
9.5.1.1.	Develop MAF for TB costed implementation plan		1 international consultant and 1 local consultant		2022	25,376.16	TBD
9.5.5.1.	Conduct a TB stigma index study		1 International and 1 Local Consultant	NTLP	2023	23.201.69	TBD
9.5.6.1.	Conduct a patient-centred design study to identify barriers/enablers to positive health-seeking behaviour, symptom recognition, and other issues impacting TB case detection and diagnosis		1 International and 1 Local Consultant		2023	23.201.69	TBD
9.6.5.1	Conduct a study of stigma index for TB		1 international consultant and 1 local consultant		2023	23,135.67	TBD

ANNEX II: MONITORING AND EVALUATION FRAMEWORK

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline	Targets				
							2020	2022	2023	2024	2025	2026
Overall Goal of the NSP. To end TB by 2030												
Impact Indicators	TB incidence rate per 100,000 population and percent decrease in the TB incidence rate	**Numerator**: Total notified TB cases in all forms (pulmonary and extrapulmonary) **Denominator:** country population in 000s	WHO Global TB report	Annual	NTLP	National	319	294 (8%)	269 (16%)	244 (24%)	219 (31%)	160 (50%)
	TB mortality rate per 100,000 population and percentage decrease in TB mortality rate	**Numerator:** Estimated no. deaths due to TB **Denominator:** country population in 000s	WHO Global TB report	Annual	NTLP	National	81	73 (10%)	65 (20%)	57 (30%)	49 (40%)	40 (51%)
	Incidence of grade 2 disability among new Leprosy cases	**Numerator** Number of leprosy cases with grade 2 disability **Denominator** Total number of leprosy cases notified in a specified period	NTLP annual report	Monthly, quarterly, and annually	NTLP	H/F, district, provincial and national	70%	60%	50%	35%	20%	10%
	Universal health coverage and social protection											
	TB treatment coverage (%)	**Numerator** Notified new and relapses TB cases in a specified year **Denominator** Estimated TB incidence in a specified year	WHO Global TB report	Annual	NTLP	National	68%	83%	83%	87%	89%	86%
	Percent TB patients and their families facing catastrophic costs[16]		Survey	Periodic	NTLP	National	Not Known	Will be determined after conducting an out-of-pocket study in 2022	TBD	TBD	TBD	TBD

[16] Defined as direct medical expenditures, direct nonmedical expenditures and indirect costs (e.g. income losses) that sum to >20% of household income

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
	TB case fatality ratio (estimated mortality/estimated incidence)	**Numerator:** Estimated mortality in a specified year **Denominator** Estimated incidence in a specified year	WHO Global TB Report	Annual	NTLP	National	26%	24%	22%	20%	18%	16%
Strategic Objective 1: To increase TB treatment coverage from 68% in 2020 to 80% by 2026												
S0. 1.1	Number and percent of presumptive TB cases documented in the presumptive registers	**Numerator:** Number presumptive TB cases registered in a specified period **Denominator:** Total number of OPD attendees in a specified period	OPD register and Presumptive Register	Monthly, Quarterly, and annually	NTLP	H/F	303,138	424,393	594,150	831,810	1,164,537	931,628
S0. 1.2	Total Number and percent of TB patients notified (All forms)	**Numerator:** Total Number of TB patients notified in a specified period **Denominator**: TB notification target in a specified period	TB treatment register/DHIS2	Monthly, quarterly, annually	NTLP	H/F/ district	40,726	49,742	50,183	51,549	53,026	51,703
S0.1.3	TB Case notification rate (percent)	Total notifications in a specified year divided by total population in the same year multiplied by 100,0000	DHIS2/NTLP reports	annually	NTLP	National	228	263	258	256	258	249
S0. 1.4	Number and proportion of new and relapse TB cases	**Numerator:** Number of new and relapse TB cases in a specified period **Denominator:** A target of new and relapse TB cases in the specified period	DHIS2	Monthly, quarterly, and annually	NTLP	H/F, District	40,000	48,747	49,179	50,518	51,965	50,669

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
S0. 1.5.	The proportion of notified new and relapse TB cases tested with rapid diagnostics at the time of making a diagnosis of TB	**Numerator:** number of notified new and relapse TB cases tested with a WRD at the time of making a diagnosis **Denominator:** Total number of notified new and relapse TB cases	DHIS2, DISA	Quarterly, annually	NTLP	H/F and district	44%	80%	80%	80%	80%	80%
S0. 1.6.	Number and proportion of bacteriologically confirmed TB cases among pulmonary TB patients	**Numerator** Number of bacteriologically confirmed pulmonary TB patients in a specified period **Denominator** Total Pulmonary TB cases in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	HF/district	19088 (51%)	25,000	28,000	31,000	34,000	37,000
S0. 1.7.	The proportion of women aged ≥15 years among total TB patients notified	Numerator: Women aged ≥15 years notified with TB **Denominator:** Total TB notifications in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	HF/district	35%	40%	40%	40%	40%	40%
S0. 1.8.	The proportion of men aged ≥15 years among new and relapse TB cases	**Numerator:** Men aged ≥15 years notified with TB **Denominator:** Total TB notifications in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	HF/district	65%	60%	60%	60%	60%	60%
S0.1.9	Percent of patients with EPTB among all New and relapse TB cases	**Numerator:** Number of new and relapse TB cases with EPTB **Denominator:** Total number of new and relapse TB cases in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	HF/district	8%	6%	6%	6%	5%	5%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
S0.1.10	Number and percent of contacts of bacteriologically confirmed TB patients evaluated for active TB	**Numerator**: Number of contacts of bacteriologically confirmed TB patients evaluated for active TB disease **Denominator:** Total number of contacts of bacteriologically confirmed TB patients in a specified period	DHSI2	Monthly, quarterly, and annually	NTLP	HF/district	70,240	125,000	140,000	155,000	170,000	185,000
S0.1.11	Percent of TB patients notified through contact investigation	**Numerator** Number of TB patients notified through contact investigation **Denominator:** Total TB patients notified in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	HF/District	7%	7%	7%	7%	7%	7%
S0.1.12	Number and percentage of notified TB cases (all forms) contributed by the community)	**Numerator:** Number notified through direct community contribution **Denominator:** Total number of TB patients notified in a specified period	DHIS2	Monthly, quarterly, and annually	NTLP	Community/HF/ District	4%	5%	5%	5%	5%	5%
S0.1.13	Number and percentage of notified TB cases (all forms) contributed by private providers	**Numerator:** Number of TB patients notified by private providers **Denominator** Total number of TB patients notified in a specified period	DHIS2	quarterly, and annually	NTLP	HF/District	2%	3%	3%	3%	3%	3%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
Strategic Objective 2: To increase the treatment success rate for TB from 90% in 2020 to at least 95% by 2026												
S0. 2.1.	Percent of new and relapse TB cases cured, or treatment completed (treatment success rate)	**Numerator:** Number of new and relapse TB cases who were cured or treatment complete in a preceding year **Denominator:** Total number of new and relapse TB patients who were notified in the preceding year of the reporting period	DHIS2	quarterly, and annually	NTLP	HF/District	89%	90%	92%	93%	94%	95%
S0. 2.2.	Percent of new and relapse TB cases who die before starting or during TB treatment	**Numerator:** Number of new and relapse TB cases who die before starting or during TB treatment **Denominator:** Total number of new and relapse TB patients who were notified in preceding year	DHSI2	quarterly, and annually	NTLP	HF/District	5%	5%	3%	2%	2%	2%
S0. 2.3.	The proportion of new and relapse TB cases who are lost to follow-up	**Numerator:** Number of new and relapse TB cases who were lost to follow-up **Denominator:** Total number of new and relapse TB patients who were notified in preceding year	DHIS2	quarterly, and annually	NTLP	HF/District	3%	2%	2%	1%	0%	0%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
Strategic Objective 3: Increase the detection of DR-TB patients from 492 in 2020 to 700 by 2026.												
SO 3.1	Total number of DR-TB cases notified		DHSI2/YATHU	Monthly, quarterly, and annually	NTLP	HF/District	492	675	650	638	633	622
S0. 3.2	Number and percent of laboratory-confirmed DR-TB patients notified	**Numerator:** Laboratory confirmed RR/MDR TB cases enrolled on second line anti TB treatment **Denominator:** Number of RR/MDR confirmed in the laboratory	Laboratory information system	Monthly, quarterly, and annually	NTRL/NTLP	Culture laboratories	484	662	637	625	620	610
S0. 3.3	Proportion RR TB/MDR-TB patients with FQ resistance detected on LPA or pDST tested on Whole Gene Sequencing (WGS)	**Numerator:** Number of DR TB patients with any 2nd line drug resistance **Denominator:** Number of DR TB patients with any 2nd line drug resistance subjected to WGS	Lab information system	Monthly, quarterly and annually	NTRL/NTLP	Culture laboratories	0	50%	100%	100%	100%	100%
S0. 3.4	Number and percentage of RR/MDR-TB cases diagnose through contact investigation	**Numerator:** Number of RR/MDR-TB cases diagnose d through contact investigation **Denominator:** Number of RR/MDR-TB patients diagnosed in a specified period	DHIS2/YATHU	Monthly, quarterly and annually	NTLP	HF/District	10	14	13	13	13	12

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
Strategic Objective 4: Increase treatment success rate for DR-TB patients from 78% in 2020 to 85% by 2026												
S0.4.1	Proportion DR-TB patients who began second line drugs	**Numerator:** Number of DR-TB patients who began second line treatment **Denominator:** Total number of DR-TB patients detected in a specified period	DHIS2/YATHU	Monthly, quarterly and annually	NTLP	HF/District	100%	100%	100%	100%	100%	100%
S0.4.2	Proportion of DR-TB patients started on all oral shorter MDR-TB treatment regimens	**Numerator:** Number of DR-TB patients started on all oral shorter regimen **Denominator:** Total number of DR-TB patients notified in a specified period	DHIS2/YATHU	Monthly, quarterly and annually	NTLP	HF/District	25%	30%	65%	65%	65%	65%
S0. 4.4	TB treatment success rate (drug-resistant TB)	**Numerator:** Number of DR-TB patients who were cured or completed treatment **Denominator:** Total number of DR-TB patients who were notified two years earlier than the reporting year	DHIS2/YATHU	quarterly and annually	NTLP	H/District	78%	80%	82%	84%	84%	86%
Strategic Objective 5: Strengthen the provision of integrated TB/HIV services at all levels by 2026												
S0. 5.1.	percentage of registered TB patients with documented HIV status	**Numerator:** Number of TB patients with documented HIV status **Denominator:** Total TB patients notified in a specified period.	DHIS2	Quarterly and annually	NTLP	H/F and districts	38,014 (93%)	100%	100%	100%	100%	100%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
S0. 5.2.	Percentage of HIV-positive TB patients on ART during TB treatment	**Numerator:** Number of TB patients who tested HIV positive **Denominator:** Total TB patients who had documented HIV status	DHIS2	Quarterly and annually	NTLP	H/F and districts	98%	100%	100%	100%	100%	100%
S0. 5.3.	Percentage of people living with HIV newly enrolled in HIV care started on TB preventive therapy	**Numerator** people living with HIV newly enrolled in HIV care who started on TB preventive Treatment **Denominator** Total number of PLHIV newly enrolled in HIV care in a specified period	DHSI2	Monthly/ Quarterly and annually	NTLP	HF/District	70%	85%	85%	85%	85%	85%
S0. 5.4.	Percentage of people living with HIV who completes a course of TPT	**Numerator:** Number of PLHIV who were initiated on TPT **Denominator:** Total number of PLHIV on TPT who complete a course of TPT in a specified period	DHIS2	Annually	NTLP	H/F and districts	90%	90%	90%	90%	90%	90%
Strategic Objective 6: Scale-up access to quality TB diagnostic services, including the adoption of new technologies by 2026												
S0. 6.1.	Number (%) of diagnostic centres using WRD testing	**Numerator:** Number of DX sites with Xpert or TB LAMP **Denominator:** Total number of all diagnostic sites	DX network database	Annually	NTLP and NTRL	NA	279/559 (50%)	339 61% 62% 64% 66% 68% 70%	349 62%	359 64%	369 66%	379 68%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
S0. 6.2.	Number of functional culture/full DST laboratories		DX network database	Annually	NTRL	NA	3	3	3	3	3	3
S0. 6.3.	Number and percent of notified rifampicin-resistant TB cases with full DST results for second-line drugs	**Numerator:** Number of notified RR cases with DST results for second-line drugs **Denominator:** Number of notified RR cases	YATU	Biannually	NTLP		21%	60%	80%	100%	100%	100%
S0. 6.4.	Number and percent of microscopy sites participating in EQA programme	**Numerator:** Number of microscopy sites participating in microscopy EQA **Denominator:** Number of microscopy sites	EQA report	Annually	NTLP/NTRL		267 (49%)	100%	100%	100%	100%	100%
S0. 6.5.	Number and % of Xpert sites participating in Xpert EQA programme	**Numerator:** Number of Xpert sites participating in Xpert EQA **Denominator:** Number of Xpert sites	EQA report	Annually	NTLP/NTRL		84(32%)	60%	100%	100%	100%	100%
S0. 6.6.	Number and (%) of TB LAMP sites participating in TB LAMP EQA program	**Numerator:** Number of TB LAMP sites participating in TB LAMP panel testing EQA program **Denominator:** Number of TB LAMP sites	EQA report	Annually	NTLP/NTRL		0	50%	100%	100%	100%	100%

Result	Indicator	Indicator Definition	Data Source	Frequency	Who collects the data?	Level of data	Baseline 2020	Targets				
								2022	2023	2024	2025	2026
S0. 6.7	Percentage of DST sites that have demonstrated proficiency by EQA panel testing for all DST methods performed	**Numerator:** Number culture, LPA and Xpert sites that passed panel testing for all DST methods performed (includes Xpert, LPA and pDST PT) **Denominator:** Total number of sites participating in Xpert, LPA or pDST PT	EQA report	Annually	NTLP/NTRL		83%	100%	100%	100%	100%	100%
S0. 6.8.	Percentage of testing sites using WRD connected to a data connectivity system (DISA	**Numerator:** Number of Xpert sites connected to DISA **Denominator:** Number of Xpert sites	DX network data base	Annually	NTLP		-64%	80%	90%	100%	100%	100%
S0. 6.10	Number culture tests performed		Lab information systems	Annually	NTRL		7,313	15,368	19,381	19,769	20,551	21,357
S0. 6.11.	Number and percentage of notified relapse TB patients with Culture and full DST results	**Numerator:** Number of notified relapse TB cases (Clinical or Bacteriologically confirmed) with culture and/or full DST results **Denominator:** Total number of notified relapse TB cases	Laboratory information system	Quarterly and annually	NTRL	Culture laboratories	5188 (12%)	4974 (8%)	4015 (7%)	3608 (6%)	2651 (5%)	2585 (5%)

ANNEX III: NSP (2022-2026) – Implementation Plan

Major Actions	2022	2023	2024	2025	2026
Objective 1: To increase coverage from 68% in 2020 to 86% by 2026					
Strategic Intervention 1.1 Improve case detection by expanding case finding to all clinical settings					
1.1.1. Introduce newer diagnostic tools in clinical settings					
1.1.2. Increase access to WHO Recommended rapid Diagnostics (WRD).					
1.1.3. Ensure all diagnosed TB patients are notified and reported					
1.1.4. Implement and scale up active case finding in clinical settings using evidence-based health facility case finding activation approach.					
1.1.5. Build capacity and improve skills for TB screening and diagnosis among health workers					
1.1.6. Conduct bi-directional screening for TB and COVID-19					
1.1.7. Improve access to imaging services					
Strategic Intervention1.2. Involve all care providers operating outside the NTLP network in TB case detection and management					
1.2.1. Strengthen coordination of PPM at the national level including the PPM sub-working group for PPM oversight					
1.2.2. Scale up the number and diversity of private providers contributing to the referral of presumptive TB cases; diagnosis and provision of DOT to contribute to national goals for TB case detection and treatment success					
1.2.3. Improve Monitoring and Evaluation to generate evidence of PPM-TB performance.					
Strategic Intervention 1.3. Strengthen TB services for High-Risk Groups					
1.3.1. Integrate TB screening in high-risk populations (DM, Nutrition services, elderly, boarding schools, and among alcohol and drug abusers).					
1.3.2. Improve active case finding and TB services in correctional facilities					
1.3.3. Improve active case finding and TB services in the mining sector					
1.3.4. Conduct annual screening of health workers for TB					
1.3.5. Conduct contact investigation of all contacts of TB patients					
Strategic Intervention 1.4. Implement differentiated case finding approaches					
1.4.1. Classify areas of high, medium, and low TB burden in the country					
1.4.2. Design appropriate activities for each level.					
Strategic Intervention 1.5: Community engagement					
1.5.1. Engage the community to raise awareness about the rights of people affected by TB.					
1.5.2. Strengthen collaborative mechanisms between NTLP and CBOS, CSOs, and NGOs to inform the design, improve quality, accessibility, and acceptability of community TB services and to monitor and evaluate TB care and support services, human rights violations, and TB stigma.					
1.5.3. Engage formal CHPs and community actors to deliver community-based TB (CBTB) care including active case finding and contact investigation and treatment adherence support.					

Major Actions	2022	2023	2024	2025	2026
1.5.4. Conduct community awareness-raising, social mobilization, advocacy, and linkage to services					
Strategic Intervention 1.6. Engage other government ministries and departments in TB prevention, care, and support					
1.6.1. Review and revise the Legal framework for the engagement of MOH and other departments and ministries to strengthen multisectoral accountability for TB.					
1.6.2. Implement a workplace wellness policy that includes TB and addresses stigma					
Strategic Intervention 1.7. Scale-up and strengthen cross border TB Initiatives (CBI)					
1.7.1. Strengthening the partnership between border districts and health facilities with neighbouring countries.					
Objective 2: Increase the treatment success rate for TB from 90% in 2020 to at least 95% from 2026					
Strategic Intervention 2.1 Reduce loss to follow up and unevaluated outcomes					
2.1.1. Improve follow up through management of appointment system using digital tools.					
2.1.2. Accelerate the scale up of the Electronic Health Management system					
2.1.3. Improve adherence counselling and peer led support					
2.1.4. Improve access to services through TB mobile services and open new treatment facilities, and roll out DSD					
2.1.5. Improve cross-border collaboration					
2.1.6. Enhance treatment supporters and community management of patients					
2.1.7. Enhance family treatment supporters.					
2.1.8. Raise awareness about the rights of people affected by TB.					
2.1.9. Introduce community-led monitoring to identify barriers to access and reduce loss to follow up					
Strategic Intervention 2.2 Reduce TB mortality					
2.2.1. Enhance multidisciplinary approach in the management of DS-TB Patient					
2.2.2. Improve evidence-based intervention (through mortality reviews)					
Strategic Intervention 2.3. Promote nutrition support					
2.3.1. Link all TB patients to social welfare support					
2.3.2. Promote education on nutrition to the patients (educational talks, leaflets etc.)					
2.3.3. Conduct nutritional assessments during TB investigation, at the time of treatment initiation, and during treatment.					
2.3.4. Raise awareness about the rights of people affected by TB.					
2.3.5. Introduce community-led monitoring to identify and overcome barriers to nutritional and other social welfare support services					
2.3.6. Conduct community-led awareness and advocacy on social welfare support for people with TB					
Strategic Intervention 2.4. Ensure appropriate TB treatment for all detected patients					
2.4.1. Sustain provision of adult and paediatric quality-assured formulations for all TB patients					
2.4.2. Strengthen active TB drug safety monitoring and management (aDSM)					
2.4.3. Introduce new therapies					

Major Actions	2022	2023	2024	2025	2026
2.4.4. Implement eLMIS for TB drugs					
2.4.5. Improve DS-TB training for health care providers.					
2.4.6. Strengthen Diagnosis, and Management of NTMs (Treatment protocols and Job aids					
2.4.7. Develop Post TB care, rehabilitation, and palliation package					
2.4.8. Ensure uninterrupted supply of TB medicines					
2.4.9. Raise awareness about the rights of people affected by TB.					
2.4.10. Introduce community-led monitoring to identify and overcome barriers to TB care services, e.g., drug stockouts					
2.4.11. Conduct community awareness and advocacy to ensure access to the latest tools and technologies for quality TB care services for all.					
Objective 3: Increase the detection of DR-TB patients from 490 in 2020 to 700 by 2026					
Strategic Intervention 3.1 Scale up clinical and diagnostic capacity to detect DR-TB					
3.1.1. Build the Capacity of clinicians and nurses in DR-TB diagnosis					
3.1.2. Develop appropriate job aids and data collecting tools					
Strategic Intervention 3.2. Improve active contact tracing in households of MDR/RR-TB patients					
3.2.1. Support contact investigation for all confirmed RR/MDR- TB cases, also leveraging community-based ACF service, and linkages to services					
3.2.2. Engage the community to raise awareness about the rights of people affected by TB.					
3.2.3. Introduce community-led monitoring to identify and overcome the gaps in household contact tracing of people with MDR/RR-TB.					
Objective 4: (DR-TB Treatment): Increase treatment success rate from 78% in 2020 to 85% in 2026					
Strategic Intervention 4.1 Expand and strengthen capacity for treatment of DR-TB					
4.1.1. Enhance multidisciplinary approach in the management of DR-TB patients, including community-based support and stigma reduction.					
4.1.2. Enhance decentralization of DR-TB management					
4.1.3. Strengthen active TB drug safety monitoring and management (aDSM)					
4.1.4. Introduce new treatment regimens that may be approved by WHO while implementing this NSP					
4.1.5. Introduction of electronic patient recording and monitoring systems.					
4.1.6. Conduct community awareness and advocacy for new treatment regimens of DR TB.					
Strategic Intervention 4.2 Improve the social welfare of MDR/RR-TB patients					
4.2.1. Provide social protection support to MDR/RR TB patients					
4.2.2. Introduce community-led monitoring to identify and overcome barriers to nutritional and other social welfare support services for people with MDR/RR-TB.					
Strategic Intervention 4.3 Reduce loss to follow up and unevaluated outcomes					
4.3.1. Improve follow up through management of appointment system (data management e.g., electronic platforms)					
4.3.2. Improve access to services through TB mobile services and opening of new treatment facilities					
4.3.3. Sustain community treatment supporters for MDR/RR-TB patients.					

Major Actions	2022	2023	2024	2025	2026
4.3.4. Engage the community to raise awareness about the rights of people affected by TB.					
4.3.5. Introduce community-led monitoring to identify barriers to access and reduce loss to follow up					
Strategic Intervention 4.4 Enhance Patient-centred care/Optimization of quality of care					
4.4.1. Increase the capacity of health care providers and community providers in patient-centred care, including gender-sensitive care and medical ethics.					
4.4.2. Increase access to clinical monitoring services e.g., safety labs and others					
4.4.3. Build capacity of HCW, including CHWs in the management of DR-TB patients					
4.4.4. Assess mental health status and provide psychological counselling					
4.4.5. Develop Post TB care, rehabilitation, and palliation package in collaboration with affected TB communities.					
4.4.6. Improve on recording of patient clinical data (paper based and electronic based).					
4.4.7. Engage the community to raise awareness about the rights of people affected by TB.					
4.4.8. Introduce community-led monitoring to identify barriers and challenges and to ensure the availability, accessibility, and acceptability of quality TB care and support services that are free of stigma and human rights violations for all.					
4.4.9. Identify and make programmatic and service improvements to optimize the quality of care, based on the CLM data.					
Strategic Intervention 4.5. Enhance management of contacts of DRTB patients					
4.5.1. Conduct contact investigation to detect those infected and those at risk, also leveraging a community-based system					
Objective 5: Strengthen the provision of integrated TB/HIV services at all levels by 2026					
Strategic Intervention 5.1. Strengthen TB/HIV collaboration at all levels					
5.1.1. Strengthen national, Provincial, and District-levels coordination of TB/HIV services					
5.1.2. Strengthen TB/HIV collaboration at the health facility level					
5.1.3. Strengthen TB/HIV collaboration at the community level with active engagement of affected TB and HIV communities in the design, delivery and monitoring and evaluation of TB care and support services, human rights violations, and stigma.					
Strategic Intervention 5.2. Intensify HIV testing, screening for nutritional status, diabetes, and mental disorders in presumptive and confirmed TB patients and offer high-quality patient- centred HIV care for HIV co-infected TB patients.					
5.2.1. Build the capacity of healthcare providers in the provision of the integrated TB and HIV care package.					
5.2.2. Ensure 100% linkage to TB and HIV treatment and care for all TB/HIV co-infected patients					
5.2.3. Engage communities in raising awareness about the integrated TB and HIV care package and the rights of people affected by TB and HIV.					
Strategic Intervention 5.3. Reduce the burden of TB in PLHIV and people at high risk of HIV infection					
5.3.1. Support early case detection, treatment, and prevention of TB in PLHIV					
5.3.2. Ensure 100% initiation of TPT for all the eligible PLHIV					
5.3.3. Support patients on TPT to complete treatment					
5.3.4. Engage TB affected communities in raising awareness about TB among PLHIV, the TB HIV care package and the rights of people with TB and HIV.					
Strategic Intervention 5.4 Enhance implementation of TB infection control measures at various levels of the health care system					
5.4.1. Improve healthcare workers' knowledge and practices in IPC					

Major Actions	2022	2023	2024	2025	2026
5.4.2. Enhance facility-level infection control by improved administrative and environmental interventions and ensure availability and rational use of PPE.					
5.4.3. Support institutionalization of TB infection control by strengthening the functionality of the TB infection control committees					
5.4.4. Strengthen monitoring of TB infection control indicators at various levels.					
Strategic Intervention 5.5 Improve uptake of TPT among the eligible HIV negative population					
5.5.1. Increase provision of TPT to eligible HIV negative individuals and people with exposure to silica at all facilities					
5.5.2. Increase demand for TPT at the community level					
5.5.3. Improve access to latent TB testing					
5.5.4. Improve commodity security for TPT among the eligible HIV-negative population and people with exposure to silica.					
5.5.5. Strengthen monitoring of TPT cascade in the HIV-negative population and people with exposure to silica.					
5.5.6. Introduce community-led monitoring to identify those eligible for TPT and monitor and ensure access					
5.5.7. Engage communities in raising awareness about TPT, TPT eligibility, and the rights of people affected by TB.					
Objective 6: scale up access to quality TB diagnostic services, including the adoption of new technologies by 2026					
Strategic Intervention 6.1: Expand coverage for TB diagnostic services					
6.1.1. Increase the TB diagnostic sites from 559 to 700 by targeting 80 private and public health facilities that have existing laboratories but do not offer TB laboratory services.					
6.1.2. Transition to FM microscopy at 80 diagnostic sites that still use light microscopy for follow up.					
6.1.3. Expand coverage of GeneXpert network					
6.1.4. Expand the use of TB-Lamp in 265 Health facilities that have no Xpert					
6.1.5. Expand the use of LF-LAM according to WHO recommendations.					
6.1.6. Enhance the use of extrapulmonary specimens on the GeneXpert platforms.					
6.1.7. Develop a comprehensive implementation plan for TB diagnostic tools.					
6.1.8. Engage the community in raising awareness about the latest diagnostics and the rights of people affected by TB.					
6.1. 9. Introduce community-led monitoring to monitor and ensure access to the latest diagnostics, identify gaps, and ensure access.					
Strategic Intervention 6.2. Strengthen the integrated sample referral system					
6.2.1. Increase coverage of courier services and frequency of specimen pickup					
6.2.2. Improve and reinforce specimen tracking and results feedback					
Strategic Intervention 6.3. Strengthen culture and drug susceptibility testing					
6.1.1. Increase access to Culture, 1st and 2nd line DST for all previously treated including relapses and for RR patients					
6.1.2. Expand LPA services in the diagnostic network					
6.1.3. Introduce and scale up the use of low and moderate complexity WRDs for diagnosis and detection of resistance to RIF, INH and FQ					
6.1.4. Build capacity in culture/DST and sequencing technologies.					
Strategic Intervention 6.4. Improving data management and connectivity for patient care and TB surveillance					

Major Actions	2022	2023	2024	2025	2026
6.4.1. Expanding the use of DISA and DHIS2 to the TB network					
Strategic Intervention 6.5. Strengthen the quality of Laboratory services					
6.5.1. Expand EQA coverage for all TB diagnostic tools					
6.5.2. Strengthen results feedback from culture labs.					
Strategic Intervention 6.6. Strengthen Laboratory Quality Management System (LQMS)					
6.6.1. Ensure all the internationally accredited laboratories and all nationally certified laboratories include TB tests on their scope of accreditation					
6.6.2. Maintain accreditation and certification at all accredited and certified laboratories					
Strategic Intervention 6.7. Enhance management of laboratory supplies and equipment					
6.7.1. Improve equipment servicing and maintenance					
6.7.2. Strengthen laboratory logistics and supply management					
Strategic Intervention 6.8. Strengthen biosafety and infection Prevention in TB laboratories					
6.8.1. Develop and disseminate the National TB Laboratory Safety Manual					
6.8.2. Conduct biosafety and biosecurity risk assessment for the TB lab network.					
Strategic Intervention 6.9 Improve Human Resource Capacity for Laboratory					
6.9.1. Increase staffing at culture labs					
6.9.2. Build the capacity of laboratory staff in TB testing					
Strategic Intervention 6.10. Strengthen the structure and coordination of TB Diagnostic Network					
6.10.1. Restructure the laboratory network to a patient-centred, coordinated diagnostic network with participation and representation from networks of people affected by TB					
6.10.2. Build capacity and mechanisms for responsive technical assistance.					
Strategic Intervention 6.11. Develop a research agenda for the TB lab network					
6.1.1. Develop interventions that result in effective policies, better design of TB laboratory Network, and more efficient methods of diagnostics service delivery.					
6.11.2. Build the capacity of the NTRL to conduct Operational Research.					
Objective 7: Increase the proportion of childhood TB among the notified TB cases from 7% in 2020 to 12% by 2026.					
Strategic Intervention 7.1 Increase % of Childhood and Adolescent TB cases.					
7.1.1. Build the capacity of healthcare workers including CHWs to diagnose and manage childhood tuberculosis including strengthening the use of stool based Xpert testing, especially for kids under 5 years old.					
7.1.2. Integrate TB services into all other childhood and adolescent health services in the facilities and communities					
7.1.3. Engage the communities to raise awareness of childhood and Adolescent TB within the framework of the National ACSM strategy.					
7.1.4. Conduct extensive TB-CI to include index children and adolescents.					
7.1.5. Integrate Adolescents in childhood TB services.					
Strategic Intervention 7.2. Improve Treatment outcome of Childhood and Adolescent TB cases.					

Major Actions	2022	2023	2024	2025	2026
7.2.1. Develop approaches for family involvement with support from CHWs					
7.2.2. Expand on nutritional support in childhood TB.					
7.2.3. Introduce community-led monitoring to monitor and ensure access to nutritional support.					
Strategic Intervention 7.3. Improve data management for Childhood TB					
7.3.1. Establishing the burden of TB among Children and Adolescents at provincial and district levels					
7.3.2. Account for treatment outcomes in childhood TB.					
Strategic Intervention 7.4 Improve coverage of TPT					
7.4.1. Strengthen Access to TPT among children					
7.4.2. Engage communities to raise community awareness of IPT and the rights of people affected by TB					
7.4.3. Introduce community-led monitoring to monitor and ensure access to TPT among children and adolescents					
Objective 8. To reduce the number of people diagnosed with Multibacillary Leprosy amongst the total number of new cases from 60% to <10% and disability of already grade 2 from 70% to 10% by 2026.					
Strategic Intervention 8.1: Strengthen coordination and implementation of Leprosy interventions at all levels.					
8.1.1. Develop and monitor Leprosy implementation plans at all levels					
8.1.2. Mobilize resources for Leprosy activities					
8.1.3. Building capacity of HCWs and CHWs to diagnose Leprosy cases early and manage accordingly					
8.1.4. Conduct contact tracing of all index cases with MB leprosy, in all districts.					
Strategic Intervention 8.2. Carry out case-based surveillance and active case finding of leprosy at health facility and community level.					
8.2.1. Increase provision of single dose rifampicin from the current 0% to over 80% by 2026					
8.2.2. Organize active case finding campaigns in areas reporting high cases i.e., where such campaigns are more likely to be cost effective in terms of higher chances of finding cases					
8.2.3. Community awareness raising emphasizing the importance of the prophylaxis					
8.2.4. Conduct Community awareness raising of signs and symptoms of leprosy					
8.2.5. Develop Leprosy posters adding photos of affected persons					
8.2.6. Conduct targeted leprosy screening campaigns in high endemic districts and hidden hotspots (border communities).					
Strategic Intervention 8.3. To Prevent the early development of disability among leprosy patients					
8.3.1. Conduct elimination campaigns in the districts where Leprosy prevalence is high					
8.3.2. Addressing disability grade 2 including self-care interventions.					
Strategic Intervention 8.4. To prioritize PEP in the endemic districts					
8.4.1. Conduct active case finding					
8.4.2. Conduct targeted campaigns					
8.4.3. Conduct household contact investigation					

Major Actions	2022	2023	2024	2025	2026
8.4.4. Scale-up PEP.					
Strategic Intervention 8.5. To improve the lives of Leprosy communities.					
8.5.1. Identify former Leprosy patients and integrate them with new or existing leprosy cooperatives					
8.5.2. Start Income Generation Activities (IGAs) to remove dependence syndrome.					
Objective 9: Strengthen program management, coordination, and accountability of TB services by 2026					
Strategic Intervention 9.1: Develop and reinforce the technical and managerial capacities at Central Unit and subnational level					
9.1.1. Build technical and managerial capacity of health care workers at all levels, including CHWs.					
9.1.2. Develop human resources management strategy for retention of trained staff for the program					
Strategic Intervention 9.2: Strengthen coordination between the NTLP and implementing and cooperating partners and the local private cooperating partners					
9.2.1. Enhance coordination between the NTLP and collaborating partners through joint planning, implementation monitoring and evaluation including representatives from affected communities who have been engaged in CLM and representatives from KVPs					
Strategic Intervention 9.3. Ensure resource mobilization					
9.3.1. Sensitize high-level political leaders, development partners, NGOs, including other CSOs, and the private sector, to support TB and Leprosy control in the country					
9.3.2. Conduct advocacy for resource mobilization					
9.3.3. Develop funding proposals to mobilize additional resources.					
9.3.4. Establish and support stop TB partnership activities to raise political leaders' commitment					
Strategic Intervention 9.4. Improve the monitoring and evaluation of the programme including operational research					
9.4.1. Ensure the quality of data					
9.4.2. Strengthen data Analysis and use					
9.4.3. Roll out TB electronic information system for both drug-susceptible, drug-resistant TB and TPT					
9.4.4. Conduct supportive supervision and mentorship at all levels					
9.4.5. Conduct TB programme reviews and implement performance improvement					
9.4.6. Develop and implement operational research					
9.4.7. Engage communities to raise awareness about the rights of people affected by TB through various channels, including community-led monitoring (CLM) platforms such as OneImpact.					
9.4.8. Support the scale-up of appropriate CLM to identify and receive real-time feedback from TB patients on the quality of TB care provided to them.					
9.4.9. Conduct the TB stigma assessment to understand the level of TB stigma preventing access to care and support services and develop a TB stigma elimination action plan.					
9.4.10. Conduct the CRG Assessment to identify the specific human rights, gender, and community engagement barriers, hindering the TB response and develop a costed operational plan to overcome these barriers.					
Strategic Intervention 9.5. Ensure accountability of TB and leprosy Programme at all levels					
9.6.1. Implement a Multisectoral accountability framework for TB(MAF-TB)					
9.6.2. Conduct quarterly internal auditing and annual stocktaking					

Major Actions	2022	2023	2024	2025	2026
9.6.3. Develop a gender equality strategy for equality in the NTLP.					
9.6.4. Engage communities to raise awareness about the rights of people affected by TB and the OneImpact CLM platform.					
9.6.5. Systematically collect and use the CLM data from the OneImpact digital platform to enhance TB accountability.					
9.6.6. Train NTLP staff on the prevention and fight against corruption and grant oversight.					
Strategic Intervention 9.6: Coordinated efforts designed to place TB higher on the political agenda (ACSM)					
9.6.1. Coordinated efforts designed to place TB higher on the political agenda					
9.6.2. Strengthen government commitment to implement or improve TB related policies					
9.6.3. Mobilizing political commitment and resources for TB					
9.6.4. Increase community awareness of TB and available TB services					
9.6.5. Combating stigma and discrimination					
9.6.6. Empowering people affected by TB					