Lesotho Integrated Master Plan for Neglected Tropical Diseases (NTDs

2024 - 2030

Integrated Master Plan

MINISTRY OF HEALTH

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LESOTHO MASTER PLAN FOR INTEGRATED NEGLECTED TROPICAL DISEASES (NTDs)

2024-2030

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LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
CBOs	Community-Based Organizations
CHW	Community Health Workers
CM	Case Management
DHIS2	District Health Information Software 2
HEW	Health Extension Worker
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSTP	Health Sector Transformation Plan
IBCM	Integrated Bite Case Management
IDPs	Internally Displaced Persons
IDSR	Integrated Disease Surveillance and Respons
IHR	International Health Regulation
M and E	Monitoring and Evaluation
MDA	Mass Drug Administration
MoH	Ministry of Health
NCDs	Non Communicable Diseases
NDSO	National Drug Service Organization
NTD	Neglected Tropical Disease
PC	Preventative Chemotherapy
PC NTD	Preventive Chemotherapy Neglected Tropical Disease
PCT	Preventive Chemotherapy and Transmission Control
PRM	Population at Risk of Morbidity
SAC	School-Age Children
SCCU	Supply Chain Coordinating Unit
SDGs	Sustainable Development Goals
STH	Soil-Transmitted Helminths
TWG	Technical Working Group
UHC	Universal Health Coverage
WaSH	Water, Sanitation and Hygiene
WHO	World Health OrganizationKey Definitions

KEY DEFINITIONS

Control: Reduction of disease incidence, prevalence, morbidity and/or mortality to a locally acceptable level as a result of deliberate efforts; continued interventions are required to maintain the reduction. Control may or may not be related to global targets set by WHO.

Coordination: Collaboration among adjacent sectors and programmes, within and beyond health, in the broader NTD network. Sectors such as vector control, animal health and WASH make critical contributions to progress against NTDs, and working together more effectively will accelerate and sustain progress towards elimination and control of NTDs.

Disability-adjusted life year (DALY): A measure of overall disease burden, expressed as the number of years lost due to ill health, disability or early death; introduced in the 1990s to compare overall health and life expectancy in different countries. DALYs for a disease or health condition are calculated as the sum of the years of life lost due to premature mortality in the population and the years lost due to disability resulting from the health condition or its consequences.

Disability: Inability to adequately or independently perform routine daily activities such as walking, bathing and toileting; the negative aspects of the interaction between a person with a health condition and his or her context (environmental and personal factors).

Elimination (interruption of transmission): Reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area, with minimal risk of reintroduction, as a result of deliberate efforts; continued action to prevent re-establishment of transmission may be required. Documentation of elimination of transmission is called ***verification***.

Elimination as a public health problem: A term related to both infection and disease, defined by achievement of measurable targets set by WHO in relation to a specific disease. When reached, continued action is required to maintain the targets and/or to advance interruption of transmission. Documentation of elimination as a public health problem is called validation.

Equity: The absence of avoidable or remediable differences among groups of people defined socially, economically, demographically, geographically or by sex.

Eradication: Permanent reduction to zero of the worldwide incidence of infection caused by a specific pathogen, as a result of deliberate efforts, with no risk of reintroduction. Documentation of eradication is termed ***certification***.

Extinction: Eradication of a specific pathogen, so that it no longer exists in nature or in the laboratory, which may occur with or without deliberate work.

Hygiene: Conditions or practices conducive to maintaining health and preventing disability.

Integrated vector management: A rational decision making process to optimize the use of resources for vector control.

Integration: Grouping or "packaging" of several diseases, depending on their burden in countries, to facilitate joint delivery of interventions through a common platform such as preventive chemotherapy and use of multiplex diagnostics, and integrated monitoring, evaluation and reporting for all relevant endemic NTDs.

Mainstreaming: Planning and delivery of interventions against NTDs through the national health system infrastructure to build capacity and contribute to sustainable, efficient disease prevention and control.

Mass drug administration (MDA): Distribution of medicines to the entire population of a given administrative setting (for instance, state, region, province, district, subdistrict or village), irrespective of the presence of symptoms or infection; however, exclusion criteria may apply. (In this document, the terms mass drug administration and preventive chemotherapy are used interchangeably.)

Monitoring and evaluation: Processes for improving performance and measuring results in order to improve management of outputs, outcomes and impact.

Morbidity: Detectable, measurable clinical consequences of infections and disease that adversely affect the health of individuals. Evidence of morbidity may be overt (such as the presence of blood in the urine, anaemia, chronic pain or fatigue) or subtle (such as stunted growth, impeded school or work performance or increased susceptibility to other diseases).

Platform: Structure through which public health programmes or interventions are delivered.

Preventive chemotherapy: Large-scale use of medicines, either alone or in combination, in public health interventions. Mass drug administration is one form of preventive chemotherapy; other forms could be limited to specific population groups such as school aged children and women of childbearing age. (In this document, the terms preventive chemotherapy and mass drug administration are used interchangeably.)

Reverse logistics: Relating to the reuse of products and materials, it is the process of moving goods from their typical final destination for the purpose of capturing value or proper disposal.

PREFACE

Neglected Tropical Diseases (NTDs) continue to affect over a billion people globally, predominantly in the world's poorest communities. These diseases cause immense suffering, perpetuate cycles of poverty, and hinder economic development. Addressing NTDs is not only a health imperative but also a matter of equity and social justice.

The National Neglected Tropical Disease Integrated Master Plan 2024-2030 represents a significant commitment by our country to combat these debilitating diseases. This comprehensive plan outlines our strategic approach to achieving the elimination and control of NTDs through a coordinated and integrated effort.

Building on the progress made in recent years, this Master Plan is grounded in evidence-based strategies, innovative interventions, and the collaborative efforts of diverse stakeholders, including government agencies, international partners, non-governmental organizations, and affected communities. It emphasizes the importance of strengthening health systems, enhancing surveillance, improving access to essential medicines and health services, and promoting research and innovation.

A crucial aspect of this plan is its focus on integration. By leveraging existing health programs and resources, we aim to create synergies that maximize impact and ensure sustainability. The plan also prioritizes community engagement and empowerment, recognizing that lasting change can only be achieved with the active participation of those most affected by NTDs.

The National Neglected Tropical Disease Integrated Master Plan 2024-2030 sets ambitious yet achievable targets. It is a testament to our resolve to end the suffering caused by NTDs and to contribute to the broader goals of universal health coverage and sustainable development.

As the country embarks on this journey, we call upon all stakeholders to join us in this critical endeavor. Together, we can create a future free from the burden of neglected tropical diseases, where all individuals have the opportunity to live healthy and productive lives.

Dr. Makhoase Ranyali
Director General Health Services (a.i.)

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On behalf of the Government of Lesotho, through the Ministry of Health, would wish to thank the World Health Organization (WHO) Country Office for providing in country technical support during the Master plan development process. It would not have been possible to finalize the document without the generous technical and financial support. Special thanks and recognition goes to the WHO consultants, Dr Francis Mupeta, Dr. Tadesse Kebede, and Dr. Moussa Sacko who led the initial consultation and drafting the NTD Master plan 2024-2030. Our sincere thanks and gratitude goes to WHO/AFRO and WHO country office Lesotho for supporting the country to review and validate to finalise the NTD Master plan 2024–2030 under the technical guidance of Dr. Dhruv K Pandey, Technial Officer for Tropical and Vector Borne Diseases (TVDs) from WHO AFRO and Dr. Sirak Hailu, Public Health Officer, WHO Lesotho.

EXECUTIVE SUMMARY

Lesotho is a landlocked country located in Southern Africa. Its topography is diverse, ranging from high mountains to deep valleys and plateaus, contributing to its unique and attractive landscapes. Lesotho is divided into 10 districts; each headed by a District Administrator and has a population of approximately 2,281,454. The population distribution of Lesotho is 25% urban and 75% rural. It is estimated that the annual increase in urban population is 3.5%. 60.2% of the population is between 15 and 64 years of age.

Neglected Tropical Diseases (NTDs) are a diverse group of conditions that are mainly prevalent in tropical areas, where they thrive among people living in impoverished communities. They are caused by a variety of pathogens including viruses, bacteria, parasites, fungi and toxins, and are responsible for devastating health, social and economic consequences.

NTDs are mainly prevalent among impoverished communities in tropical areas, although some have a much larger geographical distribution. It is estimated that NTDs affect more than 1 billion people, while the number of people requiring NTD interventions (both preventive and curative) is 1.6 billion.

The epidemiology of NTDs is complex and often related to environmental conditions. Many of them are vector-borne, have animal reservoirs and are associated with complex life cycles. All these factors make their public-health control challenging.

The Lesotho NTD Master Plan (MP) is for the control, eradication, and elimination of Neglected Tropical Diseases (NTDs). It is developed for the period 2024-2030. The list of NTDs prioritized for interventions in Lesotho includes Soil Transmitted Helminthiasis, Schistosomiasis, Leprosy, Scabies, Rabies, Snakebite envenoming, and Yaws. The inclusion of these seven NTDs and NTD groups in this master plan will promote the integration approach in primary health services, the WASH (Water, Sanitation and Hygiene) concept and the "One Health" approach in collaboration with other sectors and the involvement of all stakeholders in the fight against NTDs.

This plan is structured around the other four strategic pillars, which are: 1) Accelerating programmatic action against NTDs; 2) Intensify cross-cutting approaches; 3) Change the operating model and culture in place by strengthening country ownership and 4) Strengthen resource mobilization.

This plan is expected to enable Lesotho to contribute to the cross-cutting and specific objectives by 2030 of control, elimination as a public health problem or elimination of transmission and eradication of NTDs. Its implementation budget should be mobilized from domestic resources first both public and private sectors and supplemented by resources from external partners such as the WHO and the United Nations system, NTD NGOs, bilateral and multilateral cooperation.

1. INTRODUCTION

WHO has published and disseminated to countries the NTD Roadmap 'Ending the neglect to attain the Sustainable Development Goals A road map for neglected tropical diseases 2021–2030'. The WHO Regional Office for Africa, during the Regional Committee meeting in 2022, has also adopted the Regional Framework for control, elimination, and eradication of Tropical and Vector-borne diseases (TVDs) covering the period 2022-2030 and aligned with the WHO NTD Global Roadmap. These documents were disseminated to all Member States in the Region for them to develop their 3rd or 4th generation of NTD Master Plans (2021-2025 and 2026-2030) to align with the Roadmap and the Regional Framework. Several countries require technical support in order to finalize their Master Plans. The NTD national Master Plan will govern the prevention, control, elimination, and eradication of neglected tropical diseases. It is a tool for the government to plan for all NTD programmes in the country and for facilitating alignment among partners and stakeholders for a joint and complementary support to countries and to accelerate progress towards the prevention, control, elimination, and eradication of all relevant NTDs in member states. It provides all partners working on NTDs in the African region with a harmonized tool that will facilitate joint support to countries towards NTD Roadmap 2030 targets.

Within this context, ESPEN and AFRO TVD are continuing to support the development of these NTD Master Plans where gaps exist. In May 2023, ESPEN conducted a further survey among countries that were yet to complete their master plans to identify the remaining gaps for further technical and financial support. Lesotho was among the countries that were yet to develop NTD Master Plan until 2023. The country has identified the following diseases conditions under group of NTDs – STH, Leprosy, Scabies, Rabies and snake bites. Yaws will be targeted for eradication from Lesotho in view of documenting the absence of this NTD. This will enable country in submission of a dossier for certification of Yaws free status.

With close coordinated support of WHO AFRO and WHO Country office Lesotho, with the National Disease and data technical experts, NTD Master plan was developed in March 2024 in line with WHO NTD Global Roadmap 2021-2030 and AFRO RC72 Regional Framework for TVDs 2022-2030.

Following this development of the national NTD Master Plan document, it becomes essential to guide programme implementation at various levels. More specifically it was envisaged that at the district and community level implementation will assist in realizing a sustainable integrated of NTDs control programme that is capable of achieving the goals of the master plan and consequently enables the country to meaningfully address NTDs as public health problems.

With the aim of accelerating progress toward 2030 NTD elimination and eradication targets, WHO has provided technical the support to Lesotho to finalize the NTD Master Plan for NTD integrated interventions for the elimination and eradication of targeted NTDs

Having NTD master plan in the country would act as a good advocacy tool in securing internal domestic funds for priority disease programmes and resource mobilization from the global donors.

2. PART I: SITUATION ANALYSIS

2.1 COUNTRY CONTEXT

2.1.1 Demography, Administrative Structures and Community Structure

2.1.1.2 Demography

Lesotho is a landlocked country within South Africa. It has an area of 30 355m^2 of plain and mountainous terrain with altitudes ranging between 1388 to 3482 meters above sea level. In summer, temperature can rise to above 32^{0}C while in winter they can drop as low as -8^{0}C. Rainfall is between 760 – 1900mm.

The country has a projected population of 2,116,428 people according to the Bureau of Statistics.Of the total population, 34% live in urban, 58% in rural areas, and 8 % in peri-urban. The country's capital, Maseru, accounts for around a quarter of the total population. The sex distribution is 1,040,956 males and 1,075,472 females, or around 96 males for every 100 females (Lesotho Population Projections 2016-2036 Report).

The average population density in the country is around 66 people per square kilometer. The density is lower in the highlands than in the western lowlands. The majority of the population (62.1%) is between 15 and 64 years of age, although Lesotho has a substantial youth population numbering around 38.1 %. The annual population growth rate is estimated at 0.68%. The population pyramid for the projected population 2021-2026 can be referred in figure 1.

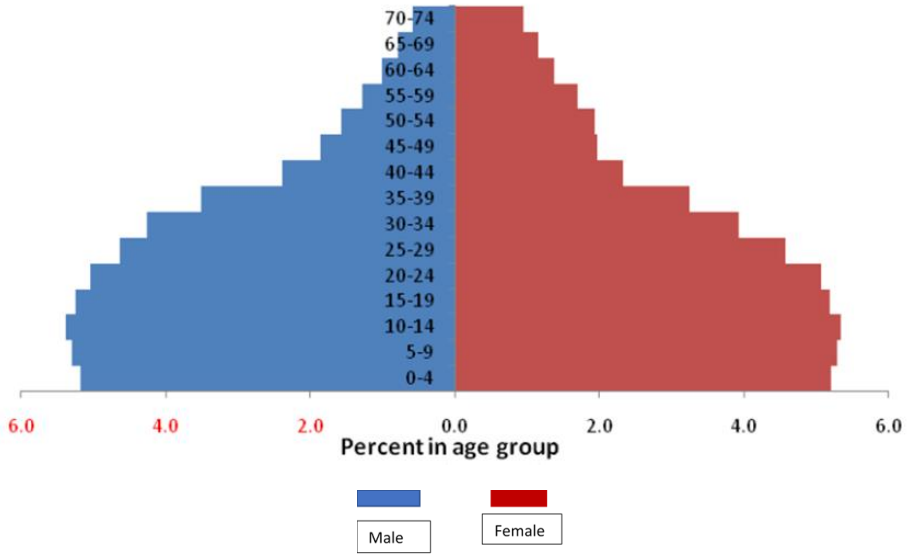

Figure 15: Projected Five-year Age Groups Medium Variant 2026

The majority of the population is in the age group of 5 to 9 years accounting for 221,476 persons (11%), followed by the age group 10 to 14 years with 10.7% while the adult population aged 65 years and above constitutes 6.1 % of the total population. According to recent estimates, 85 % of the population is literate (Bureau of Statistics, Population and Housing Census, 2016).

The population distribution, number of schools, and the type of health facilities per district are presented in Tables 1,2,3 below. According to the district-wise distribution, Maseru had the highest enrolment with 10,507 children, making up 22.5% of the total. Leribe followed with 8,856 learners, representing 19.0%, while Qacha's Nek had the lowest enrolment with 1,844 children, or 4.0%. The data also reveals that in most districts, the number of girls enrolled surpassed that of boys, except in Berea, Quthing, and Botha Bothe, where the reverse was true. In 2023, girls accounted for 23,698 learners (50.8%), and boys made up 22,924 learners (49.2%)

Information on Early Childhood Care and Development (ECCD) and Primary schools

The table 1 provides details on ECCD enrolment by district, age, and sex for 2023. The number of children enrolled in ECCD centers, including reception classes, declined from 50,056 in 2018 to 47,447 in 2019, and further decreased to 46,622 in 2023.

The data shows that Maseru had the highest enrolment with 10,507 children (22.5 percent), followed by Leribe with 8,856 children (19.0 percent). Qacha's Nek had the fewest enrolments, with 1,844 children (4.0 percent).

In terms of gender distribution, girls outnumbered boys in most districts, except for Berea, Quthing, and Botha-Bothe, where the reverse was true. Overall, girls made up 23,698 (50.8 percent) of the enrolment, while boys accounted for 22,924 (49.2 percent) in 2023.

Table 22: ECCD Enrolment by District, Age and sex, 2023

DISTRICTS	MALE	FEMALE	TOTAL
Botha Bothe	2125	2102	4227
Leribe	4387	4469	8856
Berea	3327	3293	6620
Maseru	5137	5370	10507
Mafeteng	1944	1980	3924
Mohale's Hoek	1577	1944	3521
Quthing	1036	965	2001
Qacha's nek	913	931	1844
Mokhotlong	1265	1365	2630
Thaba Tseka	1213	1279	2492
TOTAL	22924	23698	46622

Table 2, illustrates the distribution of registered primary schools across different districts and ecological zones. In 2023, out of a total of 1,504 schools, the majority (655 schools, 43.6 percent) were located in the Lowlands. The Mountains followed with 436 schools (28.9 percent). The Senqu River Valley and Foothills had 14.9 percent and 12.6 percent of the schools, respectively.

Within the Lowlands, Maseru had the highest number of schools at 169, followed by Leribe with 153, and Berea with 131. Additionally, four districts; Quthing, Qacha's Nek, Mokhotlong, and Thaba-Tseka had no registered primary schools in either the Lowlands or Foothills.

In the Foothills, Maseru led with 60 schools, followed by Mafeteng with 42, Botha-Bothe with 34, Leribe with 21, Berea with 18, and Mohale's Hoek with 14.

In the Mountains, Thaba-Tseka and Mokhotlong districts had 119 (27.3 percent) and 106 (24.3 percent) of the registered primary schools, respectively.

The Senqu River Valley (SRV) had four districts with registered primary schools: Quthing with 78 schools, Mohale's Hoek with 72, Qacha's Nek with 50, and Thaba-Tseka with 24.

Table 23: Registered Primary Schools by District and Ecological Zones in 2023

District	Lowlands	Foothills	Mountain	S R V	Total
Botha-Bothe	37	34	12	0	83
Leribe	153	21	32	0	206
Berea	131	18	1	0	150
Maseru	169	60	35	0	264
Mafeteng	118	42	0	0	160
Mohale's Hoek	47	14	37	72	170
Quthing	0	0	43	78	121
Qacha's Nek	0	0	51	50	101
Mokhotlong	0	0	106	0	106
Thaba-Tseka	0	0	119	24	143
Total	**655**	**189**	**436**	**224**	**1504**

Table 24: National population data, schools, and health facilities at the district level

District	No. of villages or communities*	Total population	% age Population distribution by gender		Under fives	5-15 years	No. of peripheral health facilities
			Males	Females			
Berea	974	270354	49.0	51.0	33,259	58,758	21
Botha Bothe	672	124012	48.8	51.2	14,031	25,439	13
Leribe	1974	371058	48.8	51.2	39,075	70,255	26
Mafeteng	971	166712	50.0	50.0	23,458	42,363	21
Maseru	1791	585137	48.1	58.9	63,352	106,284	35
Mohale's Hoek	1216	156276	49.1	50.9	23,626	43,051	13
Mokhotlong	915	102184	49.7	50.3	15,634	27,945	11
Qacha's Nek	391	78109	49.0	51.0	10,089	18,211	12
Quthing	1001	108526	49.2	50.8	15,409	28,880	9
Thaba-Tseka	674	139048	49.9	50.1	21,445	37,539	18
Total	**10579**	**2,101,416**	**49.16**	**51.54**	**259,378**	**458,725**	**179**

Sources: Education statistics Bulletin Planning unit: 2016, BOS projection 2017

2.1.1.3 Administrative structures

The country has ten administrative districts each headed by a District Administrator. Within each of the districts, there is at least one Urban Council and an average of 14 Community Councils. The District headquarters which are located within the Urban Councils, house nearly all government departments including the district hospital. (figure 2).

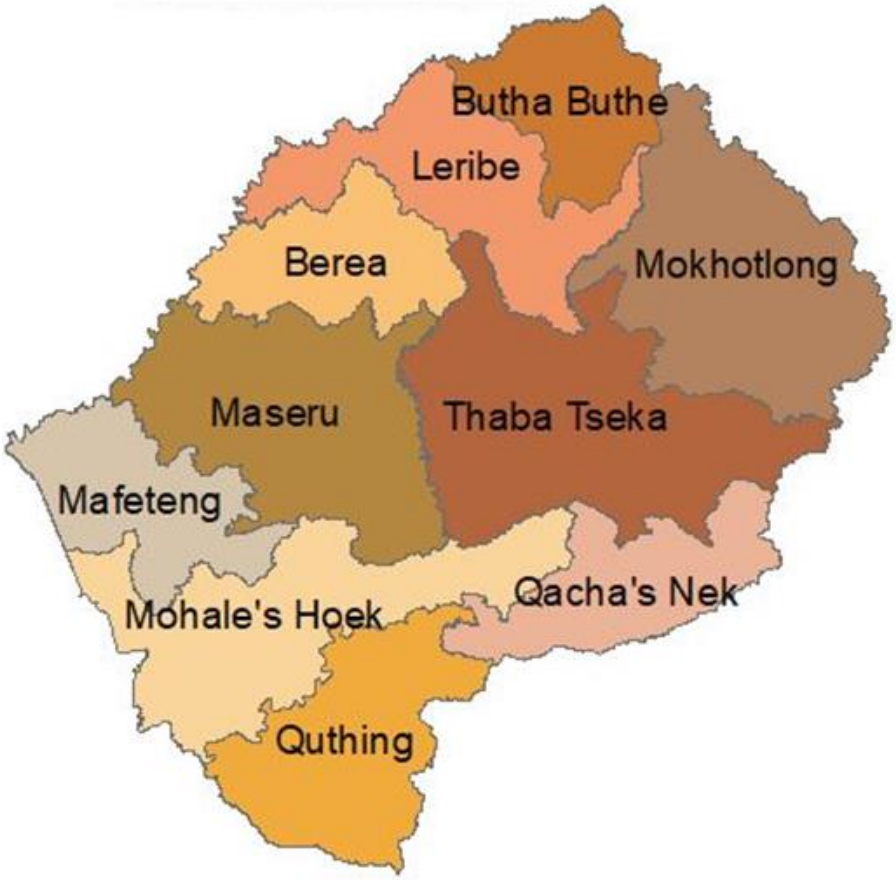

Figure 16: Map of Lesotho

2.1.1.4 Community structure

The country has various leadership structures from the national, district, and community levels. At the community level, there are Principal Chiefs that operate through area chiefs and village chiefs. Politically, there are council structures where representatives of the community are elected as councilors. The chiefs also serve on each council assisted by a headman/woman at a very local level. The District Council consists of representatives from community councils, who are from electoral divisions from different villages.

The implementation of health services at a community level is manned voluntarily by the Village Health Workers (VHWs) supervised by the Government, Christian Health Association of Lesotho (CHAL) and Red Cross. There are other Community-Based Organizations (CBOs) that also contribute to health services implementation such as Red Cross, and World Vision to mention a few.

According to multiple indicator cluster survey, 2018, majority of households were headed by male (59%) and those headed by female was 41%. The primary work of male are involved in the mines. Farming is the most common economical means of living. As such, the communities are prone to be affected by the contaminated soil.

2.1.2 Geography

2.1.2.1 Ecological zones

Lesotho is the only independent state in the world that lies entirely 1,000 metres above sea level, with over 80% of Lesotho of an altutitude higher than 1,800 metres. The lowest elevation in the country is at the junction of the Makhaleng and Senqu Rivers near the South African border, which at 1,400 metres is the highest low point of any country. The highest point is the peak of the Thabana Ntlenyana Mountain (latitude 29°28'0.01 and longtitude 29°16'0.01) near the Drakensburg range bordering the KwaZulu-Natal province in the Republic of South Africa, which reaches an elevation of 3,482 metres. The variations in geomorphology and topography, including the micro-climatological influences have significant impact on the ecology of a region.

According to the Ministry of Energy, Meteorology and Water Affairs Report (2013), Lesotho is divided into four ecological zones: the lowlands, the Senqu River valley; the highlands formed by the Drakensberg and Maluti Mountain ranges in the east and central parts of the country; and the foothills that form a divide between the lowlands and the highlands (figure 3).

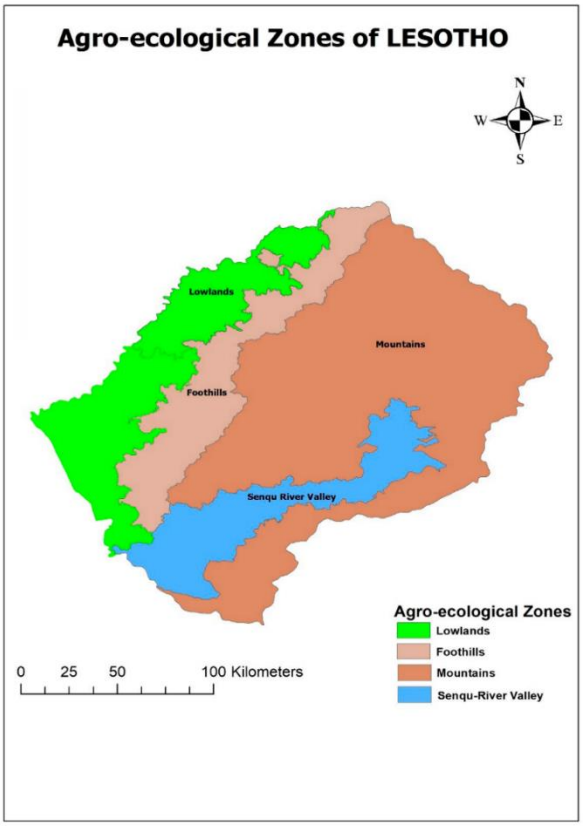

Figure 17: Lesotho ecological zones: *Source: The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Metereological Services, 2021*

2.1.2.2 The Lowlands

The lowlands cover the western part of the country and occupy approximately 5,200 km², which is 17 % of the total surface area of Lesotho. This region is a narrow strip of land extending from 10km to 60km from the border of the Republic of South Africa and lies between 1,400m and 1,800m. The northern and central lowlands are characterized by large deposits of rich volcanic soils, while the southern or border lowlands are characterized by poor soils and low rainfall (Ministry of Energy,Meteorology and Water Affairs Report, 2013).

2.1.2.3 The Foothills

The foothills are defined as the area between the lowlands and the highlands and occupy an estimated area of approximately 4,600 km². They lie between 1,800 and 2,000m above sea level and form 15 % of the total land area of the country. The foothills, on the other hand, consist of very fertile land that is associated with high agricultural productivity (Ministry of Energy, Meteorology and Water Affairs Report, 2013).

2.1.2.4 The Senqu River Valley

The Senqu River Valley forms a narrow strip of land that flanks the banks of the Senqu River and penetrates deep into the highlands, reaching lower parts of the main tributaries of this river. This region covers nine % of the total surface area. The soils of the Senqu River Valley vary from rich to very poor, making this the most unproductive region in the country (Ministry of Energy, Meteorology and Water Affairs Report, 2013).

2.1.2.5 The Highlands

This is the largest ecological area and is known as the Maluti Mountains, which cover an area of 18,047 km² and is approximately 60 % of the total land of Lesotho area. This region is extensively dissected by the headwaters of the Senqu River and its tributaries which drain in a north-south direction. Together with an extensive network of mountain wetlands today it forms an important segment of the Southern African region's water resources. The drainage pattern of the highlands region has produced deep river valleys, gorges, and gullies that make inhabitance and daily life extremely challenging. The highlands zone forms the main livestock grazing area in the country *(Ministry of Energy, Meteorology and Water Affairs Report, 2013).*

2.1.2.6 Climatic conditions

The climate of Lesotho is primarily influenced by the country's location in the Karoo Basin, spanning altitudes from approximately 1,400m to 3,480m above sea level. January records the highest mean maximum temperatures throughout the country at 24°C. Minimum mean temperatures of -0.18°C are common in June (figure 4). The sub-tropical high-pressure zone, altitudinal height, and latitudinal position of the country contribute significantly to Lesotho's climate. The basic air mass circulation is anti-cyclonic, with a westerly air current superimposed at heights of 3,000m above sea level. The geography and location of Lesotho exposes the country to climatological patterns from both the Indian and Atlantic Oceans, resulting in significant variability in temperatures (Climate Change Knowledge Portal, Lesotho 2021).

In view of the above climatic conditions, Lesotho is not favorable to the existence of vectors responsible for transmission of some tropical diseases such as lymphatic filariasis, schistosomiasis, and malaria.

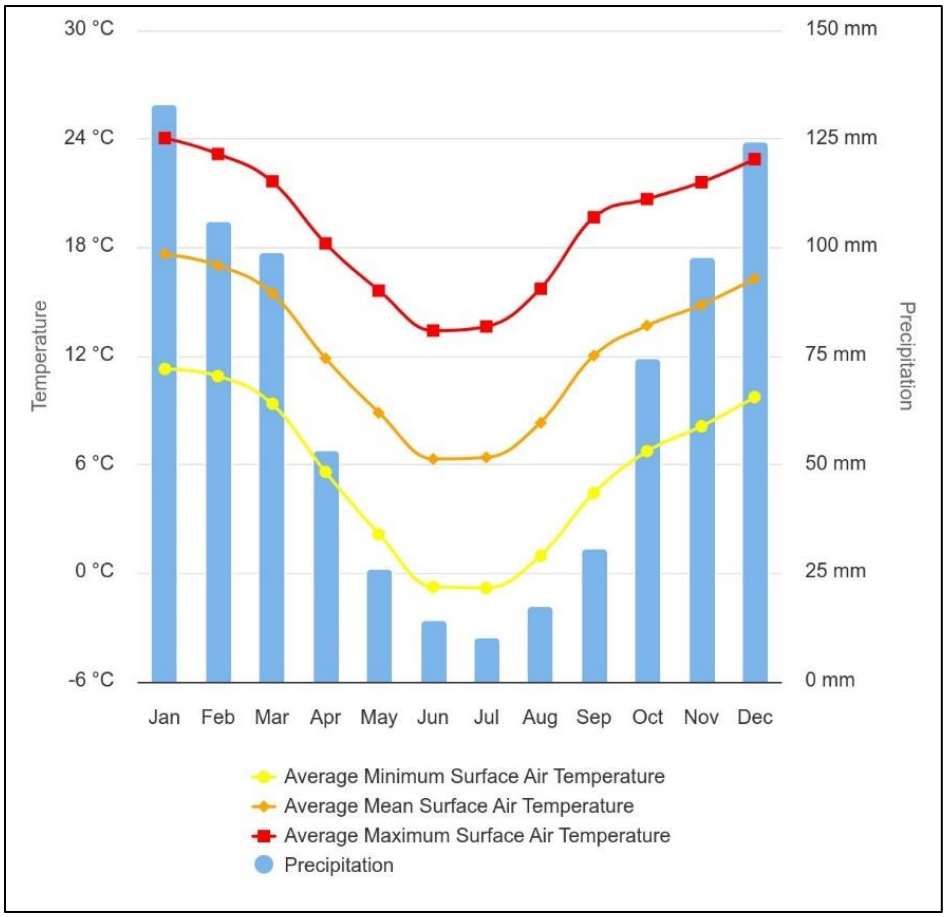

Figure 18: Climatic conditions in Lesotho

2.1.3 Socio- Economic Status and Indicators

Lesotho is classified as a lower middle-income country with a per capita gross domestic product (GDP) of $999.7 and the economy grew by 1.8% in 2022. Around, 33.9 percent of the population is estimated to live below the US$2.15/day (2017 PPP) international poverty line in 2023 as per the world bank report 2023. Unemployment rate is eastimated to be 22.5 percent as per 3rd National communication report, Lesotho, 2021.

The main growth drivers were construction, mining, manufacturing, business services, and public administration. Agriculture also contributed positively due to good seasonal rainfalls and input subsidies. The inflation rate was 8.3% in 2022 compared with 6% in 2021. HIV and TB continue to have a serious impact on all facets of society, especially the young leading to viscious cycle of poverty. It has direct effect on the perpetuation of NTDs. Table 4, describes the health and financing indicators of Lesotho 2011-2013 from the Lesotho Statistical Factsheet, Africa Health Observatory.

Table 25: Health Financing Indicators – 2011-2013

Health Financing Indicators	2011	2012	2013
External resources for health as a percentage of total expenditure on health	26.3	30.2	35.1
General government expenditure on health as % of gross domestic product (GDP)	9.2	9.5	9.1
General government expenditure on health as a percentage of total expenditure on health	77.5	78.6	79.1
General government expenditure on health as a percentage of total government expenditure	14.5	14.5	14.5
Out-of-pocket expenditure as a percentage of total expenditure on health	15.6	14.8	14.4
Per capita government expenditure on health (US$)	113	108	98
Per capita total expenditure on health (US$)	146	138	123
Total expenditure on health as a percentage of GDP	11.9	12.1	11.5

Source: Lesotho Statistical Factsheet, Africa Health Observatory, WHO Africa Region, WHO, Geneva, 2016

2.1.4 Water, Sanitation And Hygiene (WASH)

WHO rates poor, unsafe drinking water; and inadequate sanitation, as well as poor hygiene as leading causes of death in poor communities, mostly found in developing countries[i]. Access to safe water, sanitation, and hygiene (WASH) reduces the contamination of the environment, water bodies, drinking water, and food, thus is essential for the prevention, care, and treatment of many water-related infectious diseases, including NTDs. In Lesotho, 88.9% of the household population have access to improved drinking water sources, whereas the percentage of household population with E. coli in source water is 33% and 53.2% in household drinking water, while only 17.7% treat their water before drinking. In terms of sanitation, the percentage of household population using improved sanitation is 72.8, with 19.3% practicing open defecation[1].. The situation is worse in rural areas, with 28% of the households in rural Lesotho having no access to improved sanitation compared to 3.8% in urban areas. This means that about one-fifth of Lesotho households defecate in the open as an alternative to a toilet thus compromising the nation's health and development. Only 17.7% of the household population have access to a handwashing facility where water and soap are present, Table 5.

Table 26: WASH coverage by district, Lesotho.

	Drinking Water (%)				Sanitation	Hand Washing
	Percentage of household Using improved sources of drinking water	Percentage of household population with E. coli in source water	Percentage of household population with E. coli in household drinking water	Percentage of household members in households using an appropriate water treatment method	Percentage using improved sanitation	Percentage of household members with handwashing facility where water and soap are present
Area						
Urban	98.3	11.7	30.6	30.2	87.3	29.0
Peri-Urban	91.5	46.2	57.0	17.0	74.4	22.6
Rural	82.6	44.5	66.7	9.9	63.5	9.7
District						
Botha-Bothe	83.7	25.7	46.3	11.6	76.6	9.9
Leribe	88.5	34.3	59.5	11.1	84.0	18.2
Berea	87.4	39.9	63.2	20.0	74.5	23.5
Maseru	96.6	29.2	43.5	27.2	80.1	25.0
Mafeteng	86.3	23.4	34.6	19.1	74.4	16.0
Mohale S Hoek	86.4	42.6	62.0	9.4	54.4	8.1
Quthing	92.7	45.0	56.9	10.2	74.2	11.3
Qacha S Nek	84.1	24.5	50.7	7.9	65.0	10.5
Mokhotlong	84.6	34.5	69.7	13.5	47.6	7.7
Thaba-Tseka	74.4	35.6	68.2	16.5	53.9	10.9
Total	**88.9**	**33.0**	**53.2**	**17.7**	**72.8**	**17.7**

Open defecation, and lack of hygiene practices encourage contact with human excrement which results in many diseases or conditions such as diarrhoea, acute respiratory illnesses, malnutrition, and intestinal worms. According to the Bureau of Statistics (BOS) 2023 Health Statistics Report, diarrhoea was among the top ten causes of hospital admissions, accounting for 5.9% in males and 6.3% in females across all age groups in 2022. For children under five, diarrhoea, pneumonia, malnutrition, and gastroenteritis are leading causes of hospital

admissions and deaths, with diarrhoea specifically contributing to 8% of child mortality as stated in the Annual Joint Review Report, 2022/23. Although there is a lack of data on intestinal worms, it is known to be transmitted when people ingest or come into contact with faecal matter. Intestinal worms undermine children's health and development. For example, a typical ascaris load diverts around a third of the food a child consumes, resulting in malnutrition which is the root cause of half of all childhood illnesses. Similarly, hookworm is a frequent cause of anaemia while trichuris leads to chronic colitis in toddlers. Furthermore, children who carry these worms show poor performance at school (STH guideline WHO 2022). Diarrhoea and intestinal worms contribute to stunting. In Lesotho, stunting affects 36% of children under 5 years, severely impacting their growth and development (DHS, 2023).

Some communities, due to socio-economic challenges, have inadequate sanitation. Some schools are even run without sanitary facilities. As a result, the use of bush toilets for excretion is commonly practiced in such areas. These conditions promote the transmission of STH and other pathogens.

2.1.5 Health System Situation Analysis

The Health system in Lesotho is based on the WHO guided six building blocks of health system namely; service delivery, human resources for health, health information, medical products including vaccines and technologies, financing, leadership, and governance. The system is decentralized where health services and infrastructure are distributed at the national, district, and community levels.

Goal of the health system:

The goal of the health sector is to reduce morbidity and mortality, and contribute to the attainment of improved health status among the people living in Lesotho by 2030**.**

The health system analysis provides a comprehensive overview of the current state of health services in the country. This analysis delves into various aspects such as infrastructure, healthcare workforce, financing, service delivery and overall health outcomes. By examining these key WHO building blocks stakeholders can gain valuable insights into the strengths weaknesses, opportunities and threats present within Lesotho's health system.

2.1.6 Health System Goals and Priorities

The priorities' goals of the Ministry of Health are meant to contribute to the attainment of improved health status and quality of life for the people of Lesotho. In view of accelerating progress towards meeting the SDGs agenda 2030 and other global commitments on health and well-being, the MOH has provided a strategic vision in which all policies and strategies should be premised through defining priorities for the year 2023/24 and beyond. The priorities are outlined below:

Table 27: Priorities of the Ministry of health

Priority Area	Actions
Strengthening primary health care (PHC)	• Resource mobilisation to sustain implementation of integration of services • Resource mobilisation for intensified disease prevention through screening interventions for communicable and Non-Communicable Diseases (NCDs)
Non- communicable diseases (NCDs)	• Establishment of a cancer hospital • Establishment of medical school to address the current HR needs
Maternal Health	• Roll out construction of pregnant mothers home in priority health facilities
Clinical services	• Strengthening of Queen Mamohato Memorial Hospital, for it to function as referral/tertiary hospital
Good governance	• Strengthening legal, policy and strategic framework through updating and approval of policy and strategic documents
	• Initiation and revival of structured social accountability platforms at all levels, through regular performance reviews

2.1.7 Disease burden

Lesotho now faces a double burden of disease as communicable diseases continue to prevail and non-communicable diseases (NCDs) are on the rise. Of the total number of new OPD cases in 2022, the leading causes of consultation are cough and colds constituting about 27%, hypertension (4.7%), and other respiratory tract diseases at 4.2%. The other diseases constitute 54% of the classification of the top 10 leading causes of consultation in 2022 (AJR 2022/2023).The top 10 listing of the reported cases by diagnosis showed that pneumonia was the leading cause of death in both females and males accounting for 9% and 13% of the reported cases. Non-communicable diseases (stroke, heart failure, including chronic cardiac failure), and diabetes mellitus are the second leading causes of mortality in both males and females 13 years and above (Figure 5).

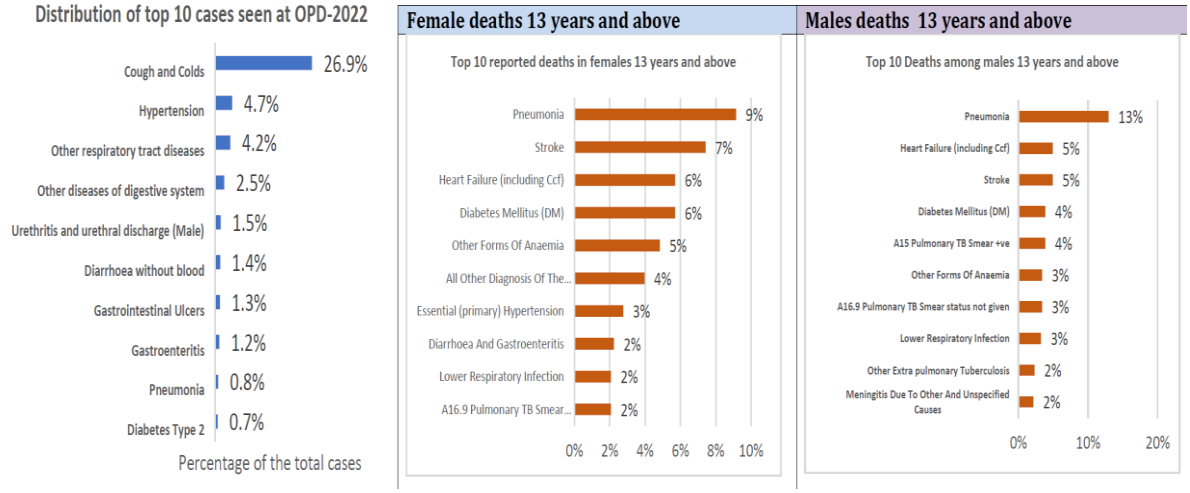

Figure 19: Top 10 OPD causes of OPD visits and deaths, Lesotho 2022

2.1.8 Health Financing

Funding for health care is from the government, partners, and other sources that include household out-of-pocket payments and contributions to private health insurance. The government is the main financier of health care and has demonstrated a strong commitment to fund programs.

Lesotho is committed to the Abuja Declaration by the African States which targets that the health budget should constitute at least 15 percent of the total national budget. The government contribution was 12% health budget as a percentage of the total government budget in the financial year 2017/18, however, the total GoL budget allocation for Health was LSL 2,745,643,320 (equivalent to USD 154,035,429, comprising of recurrent and capital budget) and this represents about 11% of the entire total GoL spending in 2022/23 finanical year (FY).

2.1.9 Leadership and Governance

The Ministry of Health leadership and management strives to level grounds for the provision of quality health services that are accessible and acceptable by every Mosotho. This is done through strengthening leadership and governance at all levels. The Ministry of Health

leadership and management coordinates policy and strategic plan development and leads the annual priority setting for each financial year.

The Ministry of Health organogram starts with the Minister of Health, followed by the Principal Secretary (PS) who is a chief accounting officer, under which are the Heads of Programs such as; Planning, Procurement, Internal Audits, Estate Management and Administration. The technical wing which comprises; Clinical Services and Primary Health Care Services led by the Director General (DG) of Health Services.

The current structure of the Ministry is inclusive of all the programmes that are geared towards the implementation of the Ministry's objectives. The ministry conducts Annual Joint Reviews that provide evidence of its functionality. Besides, numerous scheduled quarterly, monthly, and ad-hoc meetings are held to drive the agenda of the Ministry at different levels.

Even though the Ministry does not have the specific Department of NTDs, its functionality is entrusted to the Disease Control Directorate through the IHR office, under the Primary Healthcare Services. The program is led by the NTDs focal person who is also the National IDSR Focal point in the IHR Office. There is a Technical Working Group (TWG) on NTDs comprising representatives from the Ministry of Education and Training, Ministry of Health, Ministry of Agriculture, Food Security and Nutrition. The TWG is not fully activated due to lack of specific programmatic activities happening on the ground. The TWGs has to be activated for technical guidance and implemntation of guided strategies under the NTD master plan. The NTD TWG should extend to ministries responsible for environment and water with clear roles and responsibilities.

2.1.10 Health Service Delivery

Service delivery is through hospitals, health centers and village health posts. The public health facilities are almost equally divided in ownership between the Government of Lesotho and CHAL (Table 7). The MoH also has partnerships with Lesotho Red Cross and a few private practitioners. The Government accredits and engages private-sector healthcare providers through a memorandum of understanding, to deliver quality services. These include private hospitals and outpatient clinics across the country. To increase access to services, in 2008 the GoL and CHAL together with the Red Cross waived the fee for service at the health centers level and standardized fees at the hospital level. The services are delivered through an estimated 276 health facilities including the Government, CHAL, other NGO's, and private facilities. About 90% of the private facilities are located in the districts of Berea, Leribe, Mafeteng, and Maseru (Health Sector Strategic Plan 2017-2022).

There are three levels of service delivery for the public sector are;

- Primary: it comprises village operators (village health workers and community-based organizations) and health centers;
- Secondary: comprises filter clinics and hospitals; and
- Tertiary: referral hospitals and specialized hospitals.

Table 28: Master list of health facilities 2021, Lesotho

District	Hospital				Health Centres				Filter clinic	Special Hospital	Special clinic	Refferal	Total
	Gov	CHAL	Redcross	Private	Gov	CHAL	Redcross	Private					
Berea	1	1	0	2	7	9	1	2	0		0	0	22
Maseru	2	2	0	2	12	15	2	42	2	2	3	1	76
Leribe	1	1	0	1	12	13	0	9	1	0	1	0	37
Botha Bothe	1	1	0	0	8	2	0	4	0	0	2	0	16
Mokhotlong	1	0	0	0	6	2	1	4	0	0	1	0	13
ThabaTseka	0	2	0	0	11	5	0	0	0	0	0	0	18
QachasNek	1	1	0	0	8	8	0	1	0	0	1	0	19
Quthing	1	0	0	0	5	3	0	1	0	0	1	0	10
MohalesHoek	1	0	0	0	12	4	0	3	0	0	2	0	20
Mafeteng	1	0	0	0	7	10	0	4	0	0	1	0	22
Total	**10**	**8**	**0**	**5**	**88**	**71**	**4**	**70**	**3**	**2**	**12**	**1**	**253**

Access to services, whose major determinant is the walking distance of less than two hours, is estimated at 80% of the population although travel is made difficult by the rough terrain. Among households in which members travel to the nearest health facility by walking, 27% require more than 120 minutes of travel time. CHAL facilities serve approximately 40% of the population, in remote rural areas. Access of health care in the mountainous districts is constrained by distance and terrain.

2.1.11 Medical Products

The Ministry of Health develops guidelines, policies and standards through the pharmacy department to ensure quality, safety and efficacy. Lesotho has reviewed Standard Treatment Guidelines and Essential Medicine List in which NTDs are included.

The country has a national procurement and supply chain strategic plan for medicines and health products. All drugs and medical products used in public facilities are quantified through the recently established Supply Chain Mnagament Department (SCMD) at the MOH. The SCMD coordinates all supply chain activities for improved access and more rational use of medicines together with the Central Medical Store (CMS). Storage and distribution of health products to facilities is done by CMS through DHMT. The process of health product and commodity management is described in figure 7 below.

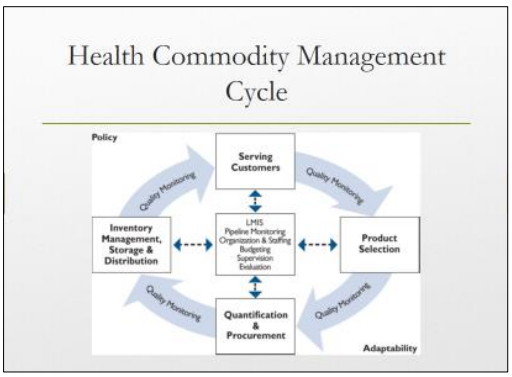

Figure 20: The commodity management cycle

2.1.12 Health Workforce

In 2022, Lesotho published a labour market analysis where it was found that Lesotho had about 20 942 active health workers across 18 health occupations in 2020, mostly village health workers (69%), nurses and midwives (17.9%), while medical practitioners (doctors) accounted for 2%. It should be noted that 56% of active health workers were employed in the public sector, 34% were employed in the private sector not for profit and 10% were employed in the private sector for profit. The density of doctors, nurses, and midwives (Core Health Worker density) in Lesotho was estimated to be 20.73 per 10,000 populations, which is below the WHO composite SDG index threshold of 44.5 doctors, nurses and midwives per 10,000 populations. This is a minimum threshold for attaining at least 70% of the Universal Health Coverage (UHC) index (AJR 2022/2023). It is worth noting that other key professionals such as Nutritionists,

Environmental Health Professionals (EHP), Pharmacists, and Laboratory Personnel are also very limited. The recommended ratio for delivering environmental health services to the communities is 1 EHP per 10 000 population. The current ratio of EHP is approximately 1:25000, indicating e deficit of more 100 EHPs. There is shortage of health personnel as well as the limited technical capacity leading to the challenge in the implementation of the NTD programme.

The Ministry endorsed (in the year under review) the Human Resource for Health Strategy and Development Plan (2020-2030) as guidance for setting priorities, informing resource allocation, fostering collaboration among stakeholders, and addressing the challenges in the health workforce. Efforts are needed to accelerate the implementation of Lesotho's HRH Strategy (2020-2030) to strive towards meeting the global targets in the density and distribution of health workers.

2.1.13 Health Information

Lesotho has a comprehensive strategic information system in place which is used for evidence-based decision making. The system comprises of district health information system (DHIS2), integrated disease surveillance and response (IDSR), other routine data collection methods, and periodic data collection including demographic and health survey (DHS) and annual joint review. To address the problems of data quality, processing, use, and feedback at all levels, the country recently adopted the DHIS2 data warehouse. The DHIS2 has facility and district coordinates as well as census data that will facilitate the analysis of health services coverage. Currently, most of the NTDs conditions and indicators are not part of IDSR, therefore, concerning NTD strategic information and indicators will be integrated in the IDSR systems. The IDSR strategy is already incorporated in the DHIS2.

2.2 ORGANIZATIONAL STRUCTURE OF THE NATIONAL NTDS PROGRAMME

2.2.1 NTD operational arrangement

The NTD program is not in existence in the country however the NTDs activities are addressed in the IHR office driven by the National IDSR Focal person in the Disease Control Directorate. The IDSR department of the Ministry of Health coordinates all the NTDs activities in the country. The departments that contribute in the achievement of the NTDs activities are; Nutrition, Environmental Health, Leprosy, pharmaceuticals, laboratory and supply chain. The effective implementation of the NTDs program activities is enhanced by line ministries such as MoAFSN, Environment and Forestry, Local Government and chieftainship and MoET due to the significant role they play. The proposed structure of the NTD operation is as displayed in figure 7.

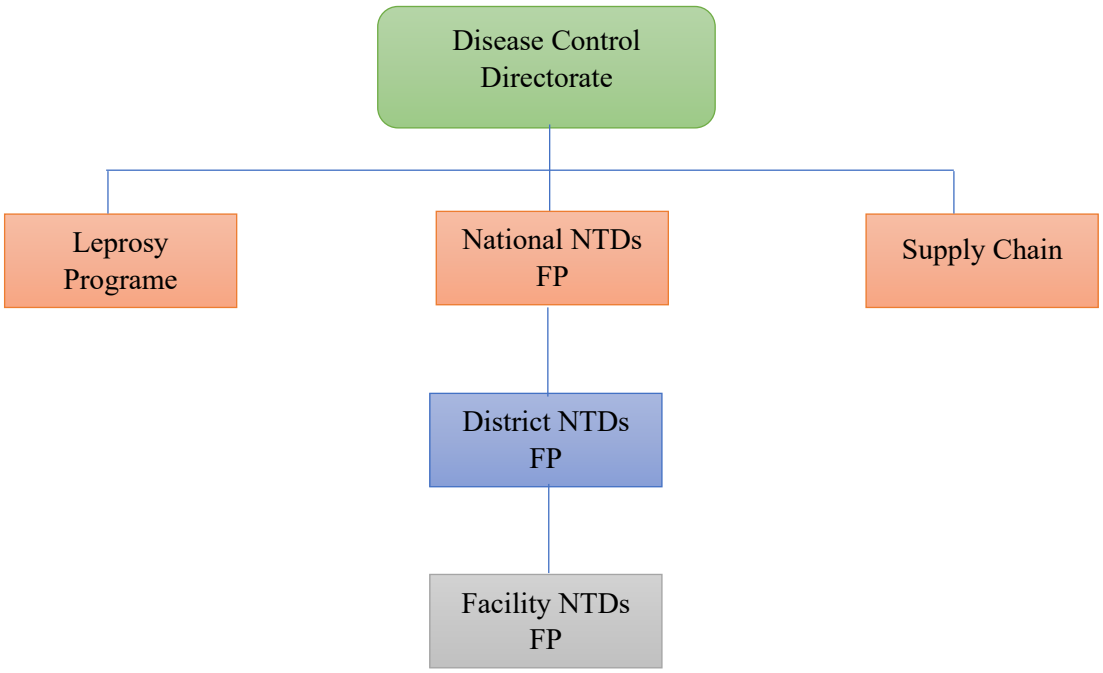

Figure 21: Proposed structure of the NTD programme

2.3 NEGLECTED TROPICAL DISEASE SITUATIONAL ANALYSIS

2.3.1 Epidemiology and Burden of NTDs and the Programme Context

NTDs are categorized as those that are treated through preventative chemotherapy (PC) and those through case management (CM). Lesotho's National NTD Master Plan will focus on the following PC NTDs; Soil-transmitted helminthiasis, Schistosomiasis and the following CM NTDs:, leprosy, Snakebites envenoming, Scabies and rabies. The 2010 situation analysis of PC NTDs shows non-endemicity of trachoma, schistosomiasis, lymphatic filariasis and onchocerciasis (WHO, 2012). The mapping survey conducted by the Ministry of Health (MoH) in collaboration with the Ministry of Education and Training (MOET), with the support of the World Health Organization (WHO) in April- May 2015, revealed endemicity of only soil-trasmitted helminthiasis (STH) with the national prevalence of 47.6%. The STH prevalence ranged from 12.0 – 99.2% at district level. Four of the 10 districts have STH prevalence of more than 50% namely; Butha-Buthe, Leribe, Qacha's Nek and Thaba-Tseka. The prevalence of *Ascaris lumbricoides* was 34.1%, while *Trichuris trichiura* was 24.9%. Hookworm was scantly distributed with an overall prevalence of 0.6%. The parasitological prevalence of *S. haematobium* and *S. mansoni* was zero in all districts. (table 8).

Table 29: Prevalence of Schistosomiasis and Soil transmitted helminths (STH) in Lesotho, 2015

District	No. of samples Examined	Prevalence of schistosomiasis		Prevalence of Intestinal Helminths species (%)			
		S. haematobium	*S. mansoni*	*A. lumbricoides*	*T. trichiura*	Hook worm	STH
Berea	252	0.0	0.0	29.0	1.6	0	32.4
Butha-Buthe	253	0.0	0.0	15.0	98.8	0.4	99.2
Leribe	250	0.0	0.0	72.8	89.6	0.0	94.0
Mafeteng	250	0.0	0.0	12.8	0.0	0.8	13.6
Maseru	250	0.0	0.0	12.0	0.0	0.0	12.0
Mohales'hoek	250	0.0	0.0	36.4	0.8	0.0	36.8
Mokhotlong	257	0.0	0.0	13.6	0.0	0.0	13.2
Qacha's Nek	253	0.0	0.0	49.0	57.3	4.3	74.7
Quthing	250	0.0	0.0	46.4	0.0	0.0	46.0
Thaba-Tseka	250	0.0	0.0	54.4	0.0	0.0	54.4
National	**2518**	**0.0**	**0.0**	**34.1**	**24.9**	**0.6**	**47.6**

2.3.1.1 Soil-Transmitted Helminthiasis (STH)

Soil-transmitted helminths refer to the intestinal worms infecting humans which are transmitted through contaminated soil: Roundworms (*Ascaris lumbricoides*), Whipworms (*Trichuris trichiuria*) and Hookworms (*Ancylostoma duodenale* and *Necator americanus*). A large part of the world's population is infected with one or more of these soil-transmitted helminths. Ascaris approximately affects 807-1121 million, Whipworm 604-795 million and Hookworm 567-740 million people globally.

In Lesotho, the Soil-transmitted helminths, which are prevalent are roundworm, whipworm, and hookworm. These are a source of concern as they negatively impact the nutritional status

of infected individuals, and the growth development of young children, and cause anaemia, particularly in pregnant women. The specific identified STH are as follows:

A. lumbricoides

A. lumbricoides is distributed throughout the country with a prevalence of 34.1%. The prevalence ranges from 12.0% in Maseru to 72.8% in Leribe (Figure - 4). When infection was stratified according to gender, it became apparent that overall, more women were infected with *A. lumbricoides* 437/1254 (34.8%) compared to males 420/1262 (33.3%).

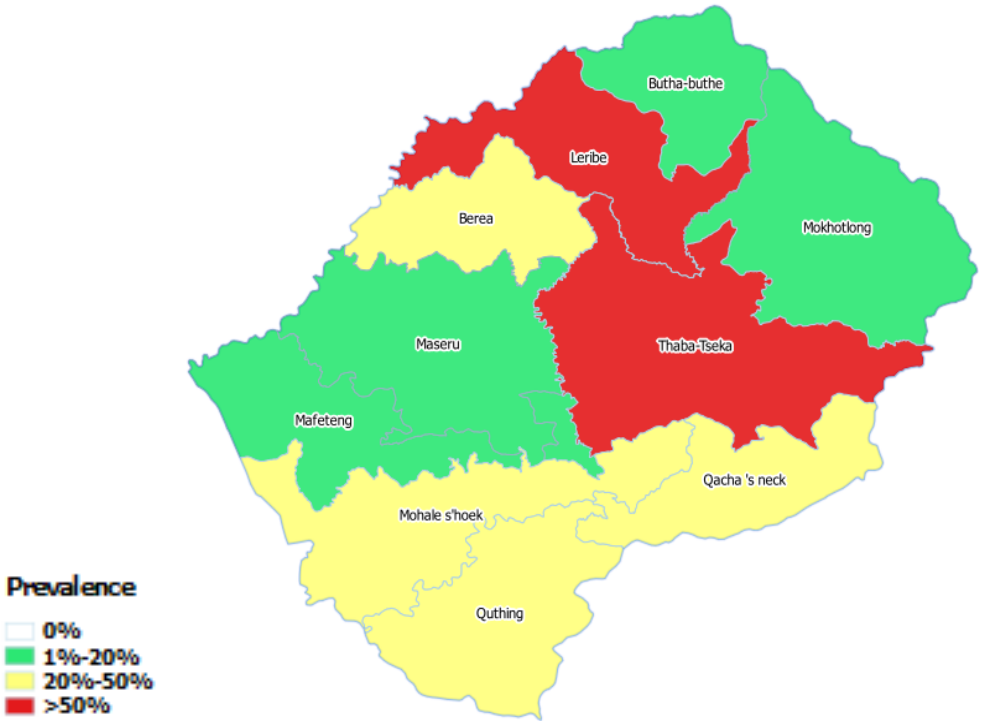

Figure 22: Stratified prevalence ranges of Ascaris lumbricoides by district in Lesotho

Trichuris trichiura

The prevalence of *Trichuris trichiura* is 24.8%. Butha-Buthe has the highest prevalence (98.8%) followed by Leribe with 89.2% (Fig - 5). *Trichuris trichiura* was not found in the following districts: Mafeteng, Maseru, Mokhotlong, Quthing and Thaba-Tseka. More males were infected with *T. trichiura*, 314/1262 (24.9%) compared to females, 310/1254 (24.7%).

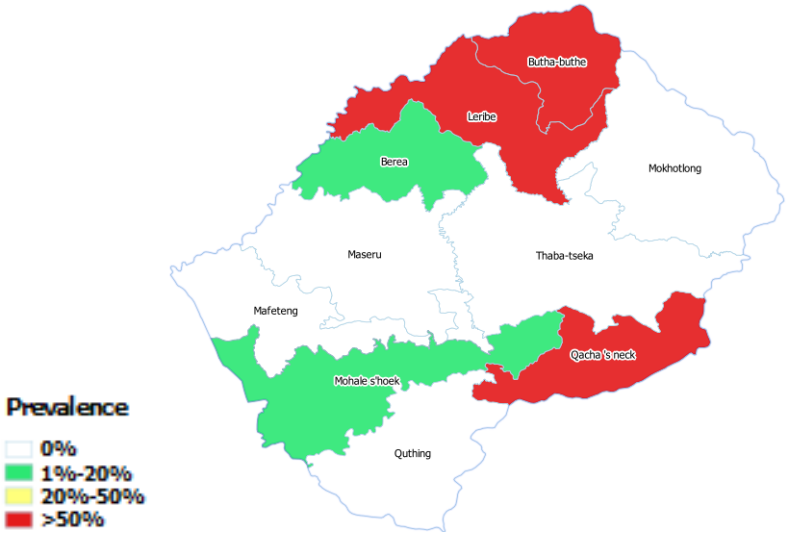

Figure 23: Stratified prevalence ranges of T. trichiura in Lesotho (May 2015)

Hookworms

The prevalence of hookworm was found very low in the country (0.6%) in 2015. Hookworms are scantly distributed in Qacha's Nek (4.3%), Mafeteng (0.8%) and Butha-Buthe (0.4%).

Other helminths

Other helminths detected include Taenia species, Fasciola spp, and *Hymenolepis nana*. These parasites were not predominantly and widely distributed.

The national population at risk of morbidity (PRM) due to STH expressed as the proportion of people infected with STH in relation to the total population (1 924 381) was 915 571 (47.6%). In Butha-Buthe, the PRM was almost 100%.

STH Infection intensities

Using World Health Organization thresholds (WHO 2002), infection with different STH species is mostly classified as light intensities. Heavy infection intensity is only observed for *T.trichiura* in Leribe (78.3%) and Butha–Buthe (32.8%).

Strategic interventions:

Based on the epidemiological picture of the STH prevalence, the following interventions have been identified using the five pillars namely; policies, prevention, treatment, care and support of affected and infected cases as well as mitigating the impact. Policies should be in place to address issues related to nutritional impact, stunting, and poor learning performance. There should be strategies for creating awareness, planning prevention strategies, advocacy strategies and information management systems.

Stratification of districts into treatment strategies

Four districts of the 10 districts in Lesotho are categorized as high-risk areas with a prevalence of STH > 50%, requiring administration of mass albendazole/mebendazole treatment (MDA)

at least twice annually whilst 3 districts are classified as low-risk areas requiring MDA once every year. The remaining three districts have a prevalence below the WHO cut-off threshold for low-risk (< 20%). However, according to the national consideration and concern over the prevalence levels in these districts, it is indicated that these districts should receive the same intervention. Figure 10.

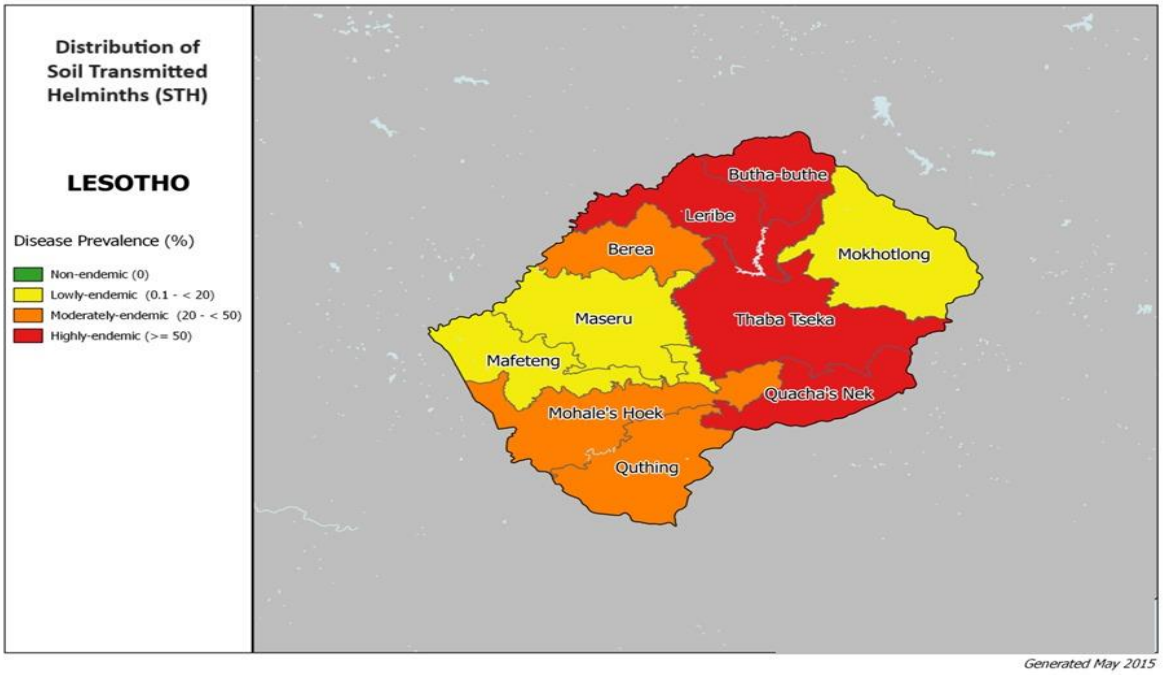

Figure 24: Stratified prevalence ranges of STH by district in Lesotho (Les NTDs mapping, 2015)

The Decision tree for conducting MDA is showing changes in frequency of PC intervention with progression of a control programme. Evaluate STH epidemiology at least after 5 years of PC implementation and progressively reduce the frequency of PC according to the WHO decision tree (Figure 11).

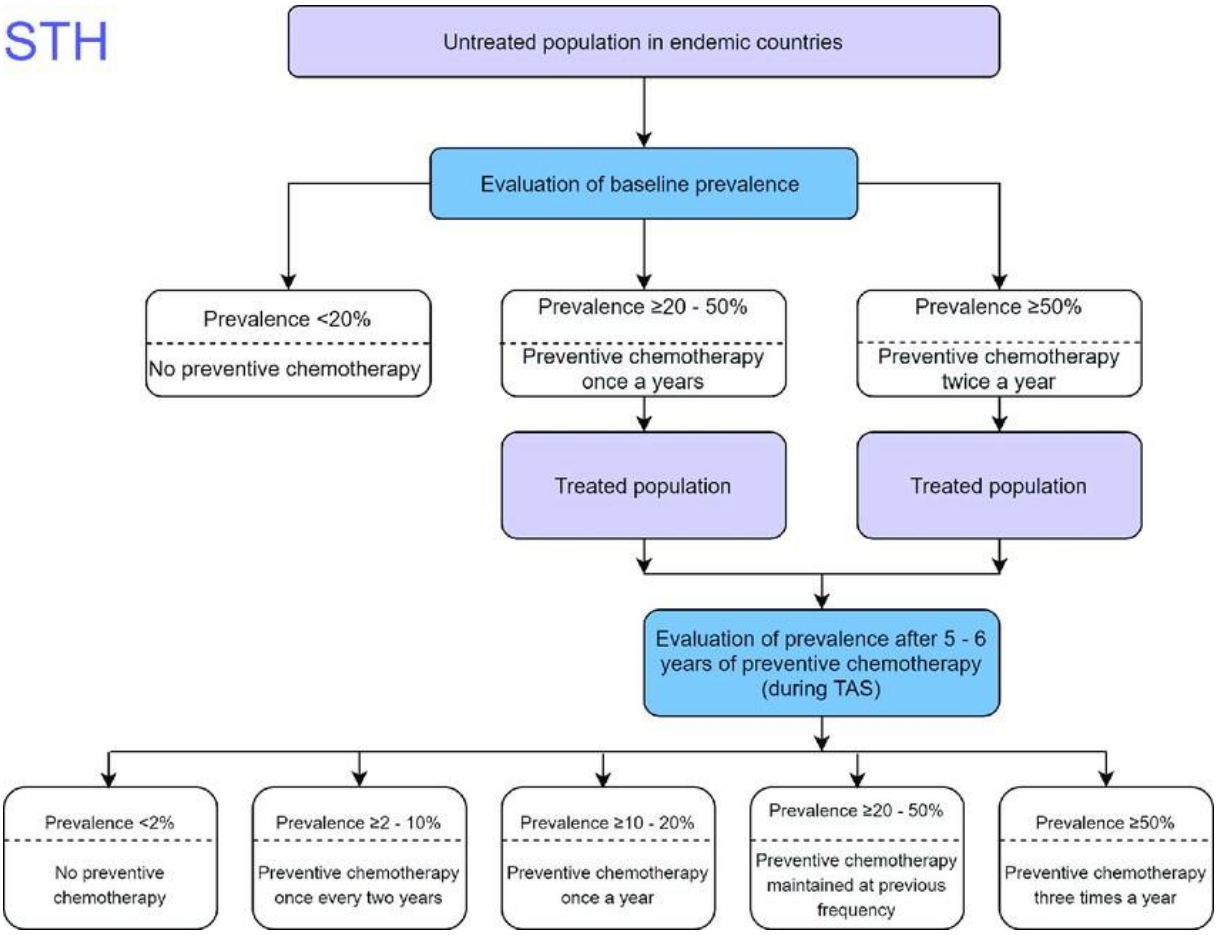

Figure 25: Decision tree for guidance in conducting MDA for soil transmitted helminths

2.3.2 Schistosomiasis

Schistosoma is a genus of trematodes commonly known as blood flukes. They are parasitic flatworms responsible for a highly significant group of infections in humans which is considered by the WHO as the second most socioeconomically devastating parasitic disease after malaria with hundreds of millions infected worldwide. The two major forms of schistosomiasis are intestinal and urogenital. The intestinal one is found in feaces (*Schistosoma mansoni*) while urogenital is found in urine (*Schistosoma haematobium*). Estimates show that at least 251.4 million people globally required preventive treatment in 2021. Schistosomiasis mostly affects poor and rural communities, particularly agricultural and fishing populations. Women doing domestic chores in infested water, such as washing clothes, are also at risk and can develop female genital schistosomiasis. Inadequate hygiene and contact with infected water make children especially vulnerable to infection.

People become infected when larval forms of the parasite, released by freshwater snails, penetrate the skin during contact with infested water. Symptoms of schistosomiasis are caused mainly by the body's reaction to the worms' eggs. Intestinal schistosomiasis can result in abdominal pain, diarrhoea, and blood in the stool. The classic sign of urogenital schistosomiasis is haematuria (blood in urine). Kidney damage and fibrosis of the bladder and ureter are sometimes diagnosed in advanced cases. Bladder cancer is another possible complication in the

later stages. In women, urogenital schistosomiasis may present with genital lesions, vaginal bleeding, pain during sexual intercourse and nodules in the vulva. In men, urogenital schistosomiasis can induce pathology of the seminal vesicles, prostate and other organs. This disease may also have other long-term irreversible consequences, including infertility.

Schistosomiasis is diagnosed through the detection of parasite eggs in stool or urine specimens. Antibodies and/or antigens detected in blood or urine samples are also indications of infection.

The WHO strategy for schistosomiasis control focuses on reducing disease through periodic targeted treatment with praziquantel through the large-scale treatment (preventive chemotherapy) of affected people. Preventive treatment, which should be repeated over a number of years, will reduce and prevent morbidity. Schistosomiasis transmission has been reported from 78 countries. However, preventive chemotherapy for schistosomiasis, where people and communities are targeted for large-scale treatment, is only required in 51 endemic countries with moderate-to-high transmission.

Praziquantel is the recommended treatment against all forms of schistosomiasis. It is effective, safe and low-cost. Even though re-infection may occur after treatment, the risk of developing severe disease is diminished and even reversed when treatment is initiated and repeated in childhood.

In Lesotho, the results of the national mapping exercise done in 2015, shows that schistosomiasis is non-existent in the country. The parasitological prevalence of *S. haematobium* and *S. mansoni* in all the 10 districts of Lesotho was found zero (0%), see the Table 8.

2.3.3 Leprosy

Lesotho is in ranking 12 of the 18 Leprosy low burden (LLB) countries among 47 countries in the WHO African Region (AFRO). Trends of prevalence rate (PR) and detection rate (DR) rates per 10,000 decreased irregularly during the decade 2011-2020 from 0.03 in 2011 to 0.00 in 2020. The country has sustained leprosy elimination as a public health problem (PHP) throughout the decade.

Table 30: Leprosy Indicators in Leosotho

LESOTHO										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Population	2,003,793	2,014,988	2,028,528	2,043,448	2,059,011	2,075,041	2,091,532	2,108,327	2,125,267	2,142,252
Prevalence	6	3	6	3	2	2	1	0	0	0
Detection	6	3	6	2	2	2	1	0	2	0
MB NC	4	1	4	2	2	2	1	0	2	0
Child NC	0	0	0	0	0	0	0	0	0	0
Gr2D NC	3	0	3	0	2	2	1	0	0	0
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
% MB	67	33	67	100	100	100	100	0	100	#DIV/0!
% Chil	0	0	0	0	0	0	0	0	0	#DIV/0!
% Gr2D	50	0	50	0	100	100	100	0	0	#DIV/0!
Prev rate	0.00	0.01	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Det rate	0.00	0.01	0.03	0.01	0.01	0.01	0.00	0.00	0.01	0.00

The figure below depicts the prevalence rate of leprosy.

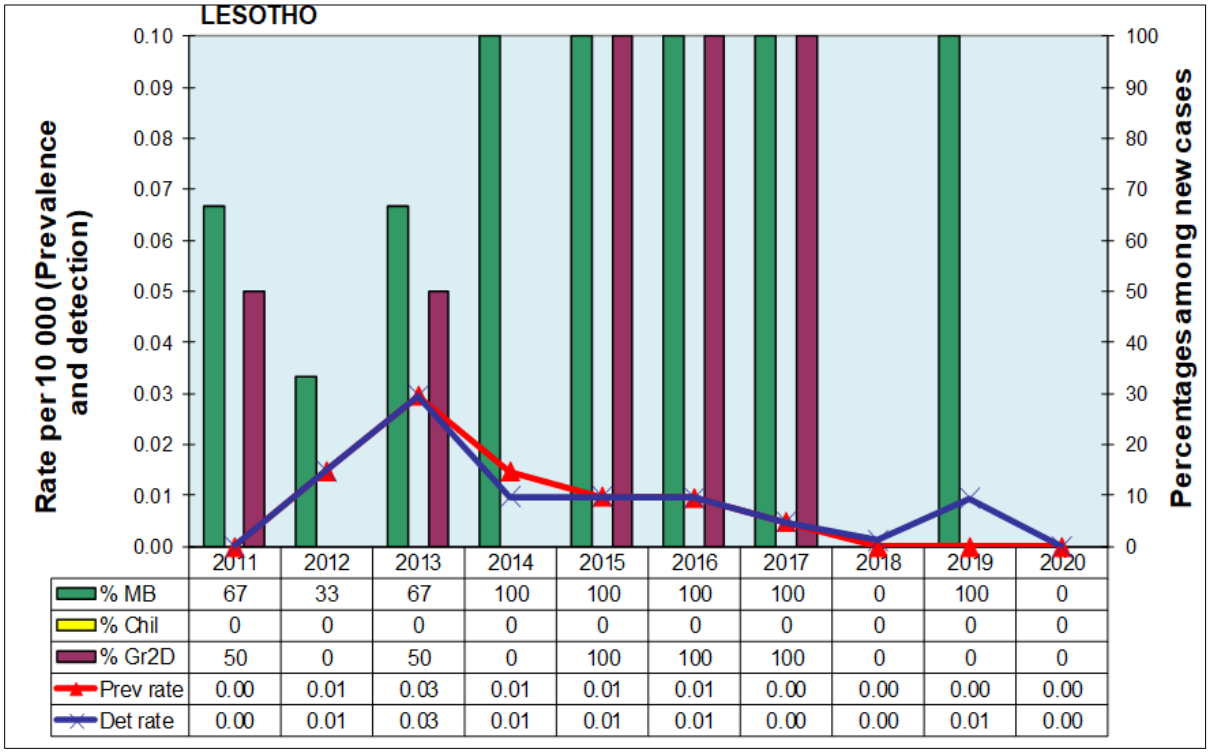

Figure 26: Leprosy prevalence rate per 10,000 population, 2011-2020

Given the small numbers of annual new cases (ranging from 0 to 6), percentages of multibaciallry (MB), children and grade-2 disabilities among new cases cannot be interpreted usefully. However, all reported new cases of leprosy during the latest years presented grade-2 disabilities, thus meaning late detection. Similarly, all new cases reported since 2014 are MB and no child case of leprosy was reported among new cases during the decade. Therefore, Lesotho could be among the first countries in the African Region to achieve elimination of leprosy transmission and could therefore submit a dossier for verification of leprosy elimination, after sustained reporting of zero annual child cases of leprosy for ten years.

Interventions for sustainance of leprosy elimination as Public Health Problem (PHP) and progress towards elimination of transmission

To sustain these achievements and progress toward elimination of transmission, Lesotho will need to:

- Maintain skills and capacities of health staff at National and District levels to suspect and diagnose cases of leprosy and leprosy-related complications (leprosy reactions and disabilities) by ensuring availability of trained Disease Control Officers at these levels.
- Strengthen Leprosy and skin NTDs surveillance by combining active search and testing for skin diseases with screening for leprosy among contacts of leprosy patients diagnosed during the previous five years.
- Maintain an outreach team ready to:
    - Undertake field visits for confirmation of suspected cases of leprosy and contact tracing
    - Provide MDT to confirmed cases of leprosy and preventive treatment with one MDT MB blister-pack to each household contact of confirmed cases of leprosy.
- By 2028, prepare a dossier as guided by WHO to request verification of leprosy elimination.
- Need to mainatain annual zero reporting of new child cases of leprosy for ten years.

2.3.4 Yaws

Yaws is a chronic disfiguring and debilitating disease caused by the bacterium *Treponema pertenue*. It is closely related to syphilis, another disease caused by Treponema bacteria, but yaws is milder and not sexually transmitted. Yaws primarily affects children in tropical regions with poor sanitation and hygiene conditions. The disease affects skin, bone and cartilage. Humans are currently believed to be the only reservoir.

The disease is typically spread through direct contact with the fluid from a lesion of an infected person. It starts with a painless ulcer at the site of entry (often on the legs, arms, or face), followed by skin lesions that can become highly infectious.

About 75–80% of people affected by yaws are children under 15 years of age. Peak incidence occurs in children aged 6–10 years, and males and females are equally affected. Transmission is through person-to-person contact of minor injuries. The initial lesion of yaws is teemed with the bacteria. Most lesions occur on the limbs. The incubation period is 9–90 days, with an average of 21 days. Without treatment, infection can lead to chronic disfigurement and disability. If left untreated, yaws can progress to more serious stages, including bone and joint involvement.

Yaws can be effectively treated with antibiotics such as penicillin or azithromycin. Mass treatment campaigns and improved sanitation have been successful in reducing the prevalence of yaws in many endemic areas. There is no vaccine for yaws. Health education and improvement in personal hygiene are essential components to reduce transmission. Contacts of patients with yaws should receive empiric treatment.

The eradication approach consists of mass treatment also called total community treatment (TCT) in which oral azithromycin (30 mg/kg, maximum 2 g) is administered to the entire population (minimum 90% coverage) in areas known to harbour yaws. Three criteria for eradication of yaws are an absence of new serologically confirmed indigenous cases for 3 consecutive years; the absence of any case proven by PCR; and the absence of evidence of transmission for 3 continuous years measured with sero-surveys among children aged 1–5 years.

Historically, Yaws has not been reported in the country. Until now, there is no specific programme or the surveillance system for Yaws existing in the country. Lesotho aims for assessment, verification and dossier prepration as guided by WHO for certification of of Yaws elimination from the country. WHO recommends integrating yaws eradication activities with NTD programmes (for MDA) and integrating it with other Skin NTDs like Leprosy, Scabies active surveillance activities.

2.3.5 Scabies

Human scabies is a highly contagious skin infestation caused by the human itch mite (Sarcoptes scabiei var. hominis). It has been observed in humans since ancient times as early as 494 BC. The microscopic scabies mite burrow into the upper layer of the skin where it lives and lays its eggs. The most common symptoms of scabies are intense itching, especially at night, and rash, which can appear as tiny blisters or bumps, often in the folds of the skin (such as between fingers, wrists, elbows, armpits, waist, thighs, genitals, and buttocks), and sores and crusts, resulting from scratching.

Scabies can lead to skin sores and serious complications like septicaemia (a bloodstream infection), heart disease and kidney problems. Scabies is contagious and spreads through skin-to-skin contact. It occurs worldwide but is most common in low-income tropical areas. Children and older people in resource-poor areas are at higher risk. Scabies can affect people of all ages and socioeconomic backgrounds. It's commonly seen in crowded living conditions, such as nursing homes, prisons, and childcare centers, where close contact facilitates the spread of the mites. It is treated using creams or oral medications.

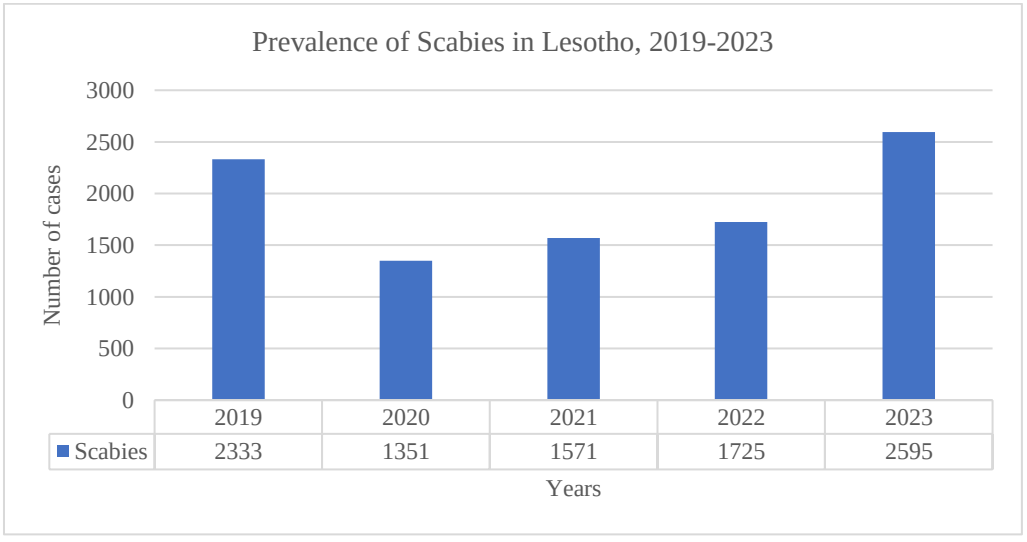

Figure 27: Reported cases of Scabies in Lesotho, 2019-2023

The extent of actual problem for Scabies is not clear in absence of a surveillance system, therefore, Lesotho needs to prioiritize Scabies for public health actions in line with the recommendations of WHO. in 2017, scabies and other ectoparasites were included as Neglected Tropical Diseases (NTDs) by WHO.

WHO 2030 global targets for scabies include:

- Countries to incorporate scabies management in the universal health coverage package of care; and
- Countries to conduct MDA intervention in endemic areas (areas where prevalence is 10% or greater).

Ivermectin is now included on the WHO essential medicines list for scabies and a number of suppliers have been WHO prequalified.

Suggested actions:

1. Mapping of the disease by 2025
2. Intervention against scabies by conducting MDA in 2025-2026 in areas having community prevalence more than 10%.

2.3.6 Rabies

Rabies is a zoonotic disease (a disease that is transmitted to humans from animals) that is caused by a rhabdo-virus. Rabies infects domestic and wild animals and is spread to people through close contact with infected saliva (via bites or scratches. Dogs are the main carrier of rabies in Africa including Lesotho.

Rabies is one of the priority diseases in the Ministry of Health and the Ministry of Agriculture. Collaboration of the two ministries is through an established IDSR technical working team. Surveillance for rabies is routinely conducted through IDSR in all ten districts. Interventions include scheduled vaccination campaigns for canines for prevention of rabies; case management in health facilities; awareness programmes conducted through radio and television and through Agriculture extension officers. The awareness program also involves engagement with chiefs, range managers and herd boys.

Control of rabies in dog populations and access to human rabies post-exposure prophylaxis can substantially reduce the burden of rabies in human populations. Rapid and accurate laboratory diagnosis of rabies in humans and other animals is essential for the timely administration of post-exposure prophylaxis. Challenges includes post-exposure prophylaxis, lack of clinical guidelines and late administration of post-exposure prophylaxis, recording, reporting system, as well as poor community awareness of Rabies. Hence there is a need to strengthen reporting and data management system to determine the extent of the problem.

In Lesotho, 811 cases of suspected rabies in dogs were reported between 2002 and 2008, with the highest number (224) recorded in 2007 *(Department of Livestock Lesotho 2008).* In humans, six (6) confirmed cases were reported in 2014, (MoH Report 2014) and 4 cases in 2022 (Table 10).

Table 31: Human Rabies Suspected Cases, January to December 2022, Lesotho

No.	Age	Sex	District	Date of dog bite	Date of symptoms onset	PEP received	Outcome
1	67	M	Leribe	17/05/2022	17/05/2022	Yes	Alive
2	46	M	Mafeteng	Two weeks before symptom onset	06/06/2022	No	Died
3	42	M	MohalesHoek	01/09/2022	26/10/2022	No	Died
4	51	M	Maseru	04/10/2022	22/11/2022	No	Died

Most of reported cases were dog bites as reported by Ministry of Health (Table 11).

Table 32: Distribution of dog bite cases by District, January to August 2023, Lesotho

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total	Total number that received PEP
Berea	2	1	2	2	1	2	1	5	16	16
Botha-Bothe	6	4	4	4	1	2	2	8	31	30
Leribe	48	51	33	34	32	38	58	32	326	326
Mafeteng	7	12	9	3	13	5	3	3	55	55
Maseru	4	3	14	20	10	11	9	4	75	75
Mohale's Hoek	2	1	0	1	0	2	3	4	13	13
Mokhotlong	1	1	1	1	5	0	3	0	12	10
Qacha's Nek	5	6	7	0	2	4	5	1	30	30
Quthing	7	2	7	1	14	2	3	2	38	38
Thaba-Tseka	4	1	0	0	0	0	0	0	5	5
Total	**86**	**82**	**77**	**63**	**66**	**78**	**87**	**59**	**601**	**598**

All were dog bites except for the ones indicated below:

*Among the dog bites in April at Mafeteng, one was cat bite.

[#] Among the dog bites in May at Quthing, one was a bite from a horse.

The number of dog rabies cases from 2018 to 2023 was found to be 230 reported by Ministry of Agriculture in the department of Livestock (2024). The routine vaccination of domestic animals in this country is implemented by the Ministry of Agriculture and Food Security (MoAFs) while the advocacy is done jointly with the MOH, especially during emergencies and outbreaks. This plan, therefore; aims to influence decisions towards routine vaccination of all

domestic animals, especially dogs, and strengthen Rabies surveillance for early identification and treatment of cases.

Rabies is included in WHO's 2021–2030 Roadmap for the global control of NTDs, which sets regional, progressive targets for the global strategic plan to end human deaths from dog-mediated rabies by 2030.

Below are the strategic actions towards rabies elimination in Lesotho:

- Improving health care workers and community awareness to human rabies and its managment
- Updating the national guideline for rabies
- Building in-country technical capacity of health workforce
- Build the capacity of One Health workforce by using rabies elimination programs as a platform for multisectoral collaborations;

2.3.7 Snakebite envenoming (SBE)

WHO formally listed snakebite envenoming as a highest priority neglected tropical disease in June 2017. Therefore, Lesotho has considered to include snakebite envenoming as one of the priority NTDs in the country. Lesotho targets to control Snakebites envenoming by 2030. The goal is to achieve at least 50% reduction in mortality and disability caused by snakebite by 2030.

The strategic approach would be:

- Mapping to ascertain baseline information
- Manpower and engage communities
- Ensure safe, effective treatment and improved access to antivenom
- Strengthen health systems by capacity building of health workers for proper case diagnosis and treatment, including snakebite envenoming reporting as a prioirity disease programme in the national surveillance systems.
- Advocate for partnerships, coordination and resource mobilization.

Symptoms of Snakebite are; pain in the affected area, skin redness, paralysis, swelling, bleeding, bruise, fast heart rate, nausea, or sweating. Snakebite envenoming is listed as a high-priority NTD by WHO. Lesotho is home to around 25 different species of snakes of which 12 are believed to be venomous to various degrees of severity. Three species are highly venomous, while three others can inflict a rather painful bite. Six species are considered mildly venomous. Thirteen species are harmless (Africa Snakebite Institute).

Lesotho has limited data (reported cases) on snake bites. A total of 38 snake bites have been reported in the outpatient report from 2019-2023. Therefore, there is a need to undertake a baseline survey to understand the magnitude of the problem that will form the basis for a comprehensive strategic plan for Snakebite envenoming in Lesotho. This is on account that the

Ministry of Health through the HMIS has been recording cases of snake bites in the inpatient dataset only, and not in the out-patient dataset, which may indicate under-reporting.

2.3.8 Co-endemicity of ntds in lesotho

In the current situation based on mapping of PCT diseases like STH and Schistosomaisis in 2015, no overlapping of endemicity was found. Other NTDs like Trachoma, Lymphatic Filariaisis, Yaws etc. are not seen and reported historically in the country. Therefore, there is no clear evidence of overlapping endemicity of NTDs the country. In case of any indication of disease situation in future, the national programme will consider doing mapping and surveillance of the disease condition.

2.3.9 Gaps and Priorities – SWOT Analysis

Table 33: SWOT Analysis

Disease/Condition	Strengths	Weaknesses	Opportunities	Threats
STH	• Available routine preventive chemotherapy for Under 5 and pregnant women • Existence of community based programmes (e.g. Village Health Worker) • Availability of national referral Laboratory • Availability of treatment guidelines, IDSR guidelines and availability of reporting system in place (DHIS2) • The disease is housed in the Disease Control Division • Existence of IHR office • Integration with the immunization activities • Presence of technology for surveillance	• No current data • No specific NTD programme • Procurement of drugs is donor dependent • Limited skills to identify parasites in the laboratory • Hard to reach areas (country topography) • Weak surveillance on STH • Low access to WASH • Open defeacation in some communities • Insufficient funds • Weak coordination • Lack of political prioritization of control of STH	• Support by partners (WHO, UNICEF, World Vision etc.) • Introduction of one health approach to disease management • Existence of elimination strategy by WHO • Existence of school health programme • Liasing and integration with other minsitries	• Political instability • Withdrawal of external support
Schistosomiasis	• NTD Mapping survey • Base-line data available. • Multi-sectorial engagement	• No active surveillance activity in place	• unfavourable environmental	• Importation of cases from

	• Availability of diagnostics in the country	• No National guideline for detection and management. • Poor hygiene and sanitation practices (WASH activities) • Lack of proper M&E • Limited skills to identify parasites in the laboratory • Lack of drugs for management of cases	conditions for transmission • Existence of IHR office	endemic areas
Rabies	• Availability of IDSR guidelines • Rabies is considered a priority disease under surveillance. • Availability of rabies national strategic plan (draft) • Allocation of human and animal anti-rabies vaccine budget • Availability of competent personnel • Commemoration of Rabies Day • Animal border control • Availability of diagnostics for Rabies (PCR)	• Lack of specific budget allocation for rabies prevention and control • Inadequacy of trained animal health workers on sampling technique of suspected rabid animal • Lack of clinical guidelines on the management of animal rabid cases • Inadequate transportation facilities • Lack of quarantine facilities at the district level for suspected cases (both human and animal) • Lack of integration of animal and human health surveillance systems	• multi-stakeholder engagement • increasing anti-rabies vaccine manufacturers • advanced technology for testing and reporting of cases	• Presence of Wild animal reservoir • Porous borders

		• Inefficiency of data collection tools (to cater for dog bites) • No written framework for one health. • Surevillance for Rabies is weak		
Scabies	• Availability of health facilities for providing treatment • Knowledgeable health personnel • Availability of drugs • Testing is done in the country • Reporting of scabies (DHIS2)	• Low access to WASH • Weak surveillance and response on Scabies • Community not well informed about Scabies (delay to seek medical help) • Lack of one health approach strategy	• Existence of a WHO framework for the integrated control and management of skin NTDs including scabies	• Potential outbreak in animals
Snakebites envenoming	• Cases are reported in the DHIS2 • Implementation of EBS (event-based surveillance) • Public awareness about snake bites alerted through media (for RCCE)	• No surveillance system • Lack of technical guidance on diagnosis and case management • Lack of proper M&E • Lack of one health approach strategy	• Implementation of National IDSR strategy. • Availability of NTD program to incorporate snake bite	• Habitat loss favouring migration of snakes • Lack of collaboration between the Ministry of

	• Availability of treatment (antivenom) countrywide.			Tourism (Wildlife program) and MoH, Agric and Environment.
Leprosy	• A well-established program for leprosy. • Availability of leprosy management guidelines. • Availability of leprosy strategic plan. • Well-maintained supply chain for leprosy commodities and supplies. • Global drug donation programme to support countries • Availability of health facilities to provide treatment	• Limited capacity for detection of leprosy cases. • Lack of refresher training for district coordinators. • Minimal awareness about the disease among community • Lack of specialized medical professionals for skin care. • Lack of workspace for leprosy management at the centre. • Lack of capacity to manage the cases. • Leprosy has not been certified for elimination •	• Partner support. • Levaraging of resources from TB programme for support to the Leprosy programme	• Importation of leprosy cases. • Social stigma for leprosy cases
Yaws	• No ocurrance of cases historically • Availability of health facilities for providing treatment • Available treatment/drugs • Availability of reference laboratory capable to diagnose	• No dermatologist in the country • Not included as priority disease in the IDSR • low knowledge about yaws in the country • No surveillance of the disease	• Introduction of one health approach to disease management • Existence of an elimination strategy by WHO	• Potential outbreak in the region

		• Low capacity to identify and manage • No reagents to test yaws	• Certification from WHO	

3 PART II: STRATEGIC AGENDA

3.1 NTD PROGRAMME MISSION AND STRATEGIC GOALS

Mission

The mission of the Neglected Tropical Disease programme is to implement an innovative, equitable, integrated sustainable strategy through prevention, identification, detection and treatment of NTDs. The goal is to reduce morbidity and improve the quality of life through the prevention, control, elimination and eradication of NTDs in Lesotho.

Vision

A healthy and productive nation free of Neglected Tropical Diseases (NTDs) by 2030

Strategic Goal

Accelerate the reduction of the disease burden by the control, elimination and eradication of targeted NTDs and contribute to poverty alleviation, productivity and quality of life of affected people in Lesotho.

3.1.1 Guiding principles and strategic priorities

This section provides information on how the PC-NTD will be carried out. It also illustrates the different interventions that each NTD will undergo until 2030 using the new Strategy for Elimination of Neglected Tropical Diseases, 2024 - 2030.

Guiding Principles

- Government and local ownership and leadership.
- Commitment to WHO global road map 2021–2030 NTD goals and targets.
- Establishment of accountability systems for monitoring and controlling resources.
- Community engagement and participation.
- Evidence-based programming and decision-making.
- Health system strengthening and sustainability.
- Integration and multi-sectoral collaboration.

3.1.2 Strategic Pillars and Priorities

The Strategic Pillars reflects the 4 strategic areas which Lesotho has adopted for a successful NTD programme implementation to achieve the NTDs targets. These include: accelerate programmatic action (pillar 1), intensify cross-cutting approaches (pillar 2) and change operating models and culture to facilitate country ownership (pillar 3), and coordination and resource mobilization (pillar 4). Strategic priorities are the broader objectives for the programme: they describe what the programme will do to try to fulfil its mission.

Figure 14 depicts how the programme strategic pillars have been structured while table 13 provide details of the of the pillars.

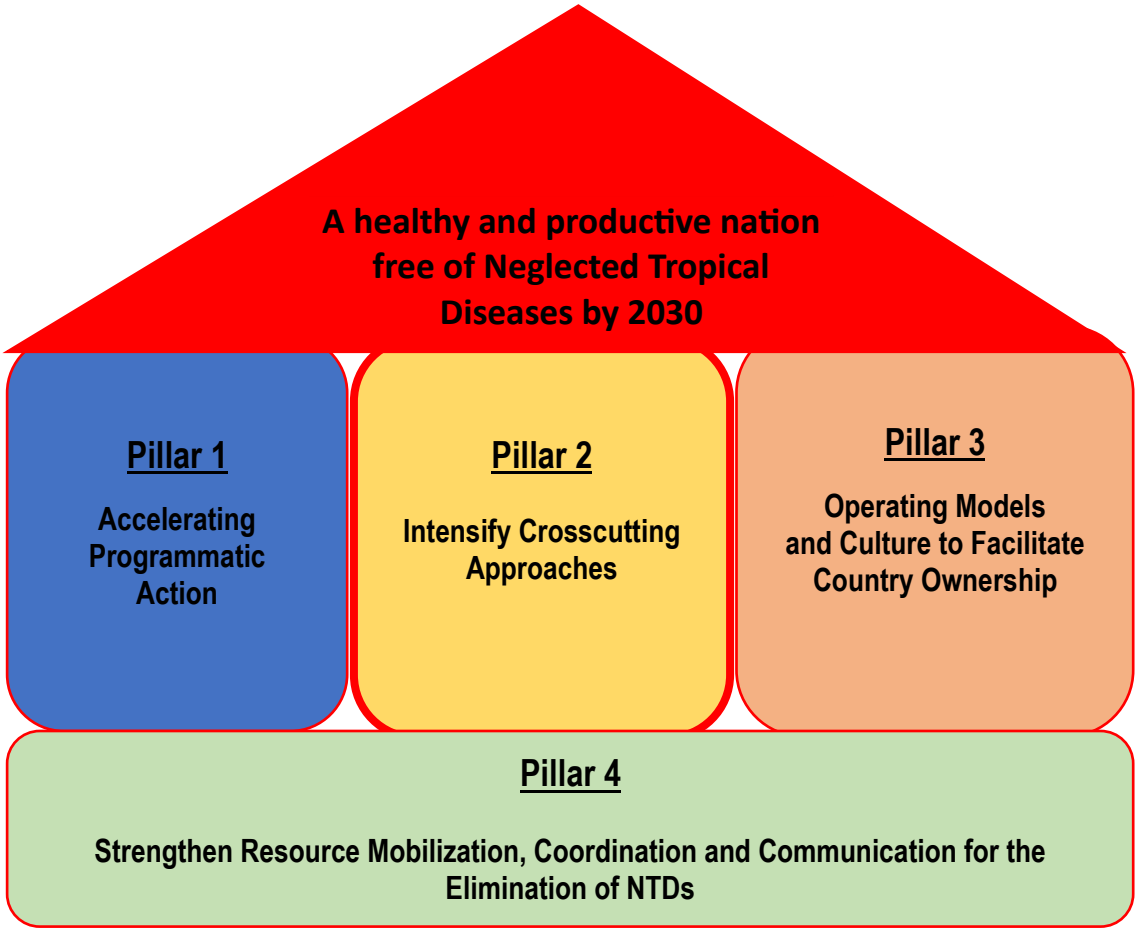

Figure 28: Strategic pillars

Table 34: Strategic Priorities for the Elimination of NTDs

STRATEGIC PILLAR	STRATEGIC PRIORITIES
Pillar 1. Accelerating programmatic action	Strengthening programme management, implementation and integration
	Scale up intergrated MDA to achieve 100% of country coverage for PCT diseases.
	Baseline assessment for selected NTDs
	Obtaining elimination/eradication certificate for selected NTDs
Pillar 2. Intensify cross-cutting approaches	Promotion of integrated NTD M&E Framework within the context of HMIS to strengthen reporting and response to NTDs.
	Supporting operational research, documentation and evidence to guide innovative approaches to NTD interventions.
	Strengthen staff competency in NTD prevention and control.

Pillar 3. Operating Models and culture to facilitate country ownership	Advocacy for government ownership, guidance and leadership
	Empowering of local government and authorities in social mobilization
Pillar 4. Strengthen Resource Mobilization, Coordination and Communication for the elimination of NTDs	Strengthen country ownership, integration and linkages of NTD program with financial plans and improved communication and awareness at the community level Ensure timely, safe and effective supply chain management of quality assured NTD medicines and other products

3.2 GLOBAL NTD PROGRAMME TARGETS

3.2.1 WHO Targets by 2030

Cross-cutting targets

1. All Member States apply appropriate technologies and analytics for integrated malaria, NTD and vector borne diseases (VBDs) decision-making to maximize the impact of interventions.
2. All Member States deliver integrated people-centred and context-specific health services towards achieving the set targets.
3. At least one NTD and malaria eliminated in six endemic Member States.

Disease-specific targets NTDs

1. All Member States that were NTD-endemic in 2020 eliminated at least one disease.
2. All Member States that were guinea-worm disease-endemic in 2020 are certified Guinea worm free.
3. All Member States have mapped PCT-NTDs.

Milestones by 2028

Cross-cutting milestones

1. All Member States to report on biological threats to malaria, NTDs and VBDs.
2. 90% of people with malaria, NTDs and VBDs have access to services

Disease-specific milestones on NTDs

1. 70–80% of Member States that were NTD-endemic in 2020 eliminated at least one disease.
2. 44 Member States certified free of guinea-worm disease compared with 2020.
3. 44 Member States fully mapped for PCT-NTDs compared with 2020.

3.3 NATIONAL DISEASE SPECIFIC TARGETS, MILESTONES AND GOALS TARGETED NTDS

The NTD programme brings together a number of disease-specific programmes and thus integration is promoted as a cost effective strategy for the effective use of limited resources. However, it is essential to maintain the disease-specific targets, objectives, milestones and goals within the context of the one overall NTD programme.

Table 14 describes the national objectives, targets by year, and strategies to be implemented for each of the targeted NTDs.

Table 35: Disease specific targets

Disease	Objectives	National Target	Year	Strategies
Soil Transmitted Helminths	To reduce MHI < 2% MHI – Mean high intensity infection	Elimination as a Public Health Problem	2030	Update mapping, MDA, WASH, Diagnostic tools Surveillance
Leprosy	To Maintain zero new indigenous case	Elimination (interruption of transmission)	2028	Diagnosis capacity for suspected case, Strengthened Leprosy and skin NTDs surveillance Maintain outreach services
Yaws	To maintain zero cases reported	Elimination at country level to contribute to global eradication	2027	Active and passive surveillance Integration with skin NTDs Dossier preparation
Scabies	To reduce the spread through skin-to-skin contact	Control	2030	Mapping of disease Strengthen Surveillance Case management/MDA Integrate WASH Integrate One health approach
Rabies	To achieve zero human and animal death from rabies	Elimination as a public health problem	2030	Integrated Bite Case Management (IBCM) Integrate One health approach Strengthen Surveillance Maintain vaccine availability Strengthen risk communication

Snakebite envenoming	50% reduction in mortality and disability	Control	2030	Mapping of situation Surveillance Availability of antivenom Capacity building on identification of venomus snakes and their behaviour, diagnosis, management of cases Integrating One health approach
Schistosomiasis	To reduce heavy infection <2%	Elimination as a Public Health Problem (PHP)	2026	Continue case based Surveillance, WASH Validation for PHP One Health approach Improved diagnosis

Table 15 depicts targeted milestones for different NTDs which shows the desired achievement of the program for the planned period.

Table 36: Milestones for targeted NTDs

Indicators	2024	2025	2026	2027	2028	2029	2030
Targeted elimination as public health problem							
Soil Transmitted Helminths (STH)							
Implementing MDA							
85 % MDA coverage							
Conduct impact assessment							
Number of IU with prevalence of moderate and heavy intensity (MHI) <2%							
Preparation dossier for EPHP							
Schistosomiasis							
Proportion endemic communities with MHI <2%							
Validation for elimination as PHP							
Preparation of dossier for validation							
Snakebite envenoming							
Baseline assessment							
50% Reduction in the number of snakebite mortality – 2030							
Scabies							
Mapping for baseline assessment – 2025							
MDA for scabies – 2025-2026 (if mapping show threshold is reached)							
10 % reduction of cases from baseline – 2030							
Targeted for elimination (interruption of transmission)							
Leprosy							
Number of zero cases of indigenous cases							
Assessment of disease situation by elimination tool and verification of elimination							
Preparation of dossier							
Targeted for eradication							
Yaws							

Number of zero cases maintained							
Assessment of disease situation by elimination tool for verification							
Preparation dossier for certification free of transmission							

The following strategic goals (table 16) are to be achieved by the programme within the set targeted years.

Table 37: Disease specific goals

STRATEGIC GOAL	**DISCRIPTION**
Disease targeted for eradication	Certified free of yaws disease by 2028
Diseases targeted for elimination of transmission	Elimination of transmission of leprosy by 2028
Diseases Targeted for Elimination as a Public Health Problem	Elimination of dog-mediated human rabies as a public health problem by 2030
	Elimination of soil transmitted helminths as a public health problem by 2030
	Elimination of schistosomiasis as a public health problem by 2026
Diseases targeted for control	Control of scabies by 2030
	Control of Snakebites envenoming by 2030

4 PART III: OPERATIONAL FRAMEWORK

4.1 NTD PROGRAMME STRATEGIC PILLARS

Table 38: Operational framework for each strategic pillars

Strategic Goal	Strategic Objective	Strategic activities	Period							Resources needed
			2024	2025	2026	2027	2028	2029	2030	
PILLAR 1: Accelerate Programmatic Action **Goal -** To reduce morbidity and eliminate NTDs as a public health problem by 2030										
	Strengthen programme management, implementation and integration	Dedicated focal person for NTDs								NA
		Develop, review and endorse strategic plan, guidelines and SOPs for NTDs								Funds
		Development of training and promotional materials								Funds
		Integrate with WASH/Environmental/One Health								Funds
	Scale up intergrated MDA to achieve 100% of country coverage for PCT diseases.	Mass Drug Administration for NTDs								HR and Funds
		Conduct NTDs Mapping (scabies and snake bite)								HR and Funds
		Impact assessment survey for STH								HR and Funds

	Baseline assessment for scabies and snake bite	Intensify social mobilization and behaivour change communication for PC NTDs								HR and Funds
	To obtain eradication certificate	Obtain Yaws, Certification for eradication and Leprosy (elimination)								Experts, Funds
Pillar 2: Intensify cross-cutting approaches Goal: To enhance capacity building, monitoring and evaluation, surveillance and innovative research to improve the effectiveness of NTD program.										
	Promote integrated NTD M&E Framework within the context of HMIS to strengthen reporting and response to NTDs.	Develop integrated NTD M&E Framework.								Experts, Funds
		Establish multisectoral technical working group (TWG) – ToR, coordination and review mechanism								NA
		Review the existing data collection tools to include all NTDs								Funds
	To support operational research, documentation and evidence to guide innovative approaches to	Build institutional capacity to conduct research								Experts, Funds
		Conduct operational research on NTDs								Experts, Funds
		Publish and disseminate research								Experts, Funds

	NTD interventions.									
	To ensure data quality of NTDs.	Enhance effective digitalized NTD data management and dissemination								gadgets (computers, tablets), Internet
	To improve staff competency in NTD prevention and control.	Capacity building of all cardes of healthcare workers for human and animal health at all levels on NTDs								Experts, Funds
		Conduct experience sharing exercises through different platforms such as review meetings, PHC meetings								Funds
		Conduct simulation exercises for NTD prevention and control								Experts, Funds
PILLAR 3: Operating Models and Culture to Facilitate Country Ownership **Goal -** To promote and strengthen government ownership										
	To advocate for government ownership, guidance and leadership	Advocate for political prioritization on NTDs								Funds
		Commemoration of world NTDs days (Leprosy, Rabies, Dengue, NTDs)								Funds
	To empower local government and authorities in	Capacity building of local governance								Funds

	social mobilization									
Pillar 4: Strengthen Coordination, Communication and Resource Mobilization for the elimination of NTDs **Goal -** *To enhance resource mobilization and planning for results in NTD control*										
	To strengthen the integration and linkages of NTD program with financial plans	Develop a costed operational plan for NTD programme implementation								Experts and Funds
		Production and distribution of NTD Surveillance IEC materials in local languages Develop Surveillance IEC materials								Funds
		Strengthen advocacy, visibility and profile of NTDs for the elimination interventions at all levels								Funds
	To ensure timely, safe and effective supply chain management of quality assured NTD medicines and other products up to the last mile.	Procurement materials, equipment and supplies for NTD prevention and control for NTDs								Funds, HR, transport

4.2 INTENSIFYING COORDINATION AND PARTNERSHIPS

This section provides the partners in the country including the implementing partners, donors, private and public partnership, such as Ministry of Agriculture, Ministry of Education, Pharmacovigilance Unit, or thematic partners such as One-Health partners or specific donors.

The MoH has to identify NTD stakeholders (internal, external) and establish a coordination mechanism with defined roles and responsibilities of the stakeholders. The coordination mechanisms model has to be launched for NTD coordination and foster partnerships at national, provincial and district levels. This would further promote partnership and coordination NTD programme implementation. A proposed partnership matrix is provided in the table 18. It can be adapted in the country for fostering integrated and coordinated action with potential stakeholders and partners.

Table 39: Proposed Partnership Matrix

NTDs	Veterinary	WASH	One- Health	Education
MoH	MoAFS	World vision	MoH	MoH
MoET	Environment	Environmental health/Mo H	MoAFS	UNICEF
MoAFS	MoH	MoET	WHO	MoET
Ministry of Environment	MoET	MoNR	EEA	CRS
MoNR		WHO	CDC/PE PFA	
WHO		UNICEF		

5 PART IV: MONITORING AND EVALUATION

5.1 ROUTINE HEALTH INFORMATION SYSTEM: DATA REPORTING STRUCTURE

The monitoring of the performance of this plan will be done through an ongoing process of data collection and analysis in order to monitor the progress made throughout the implementation of the interventions included in this plan.

- Periodic (quarterly) and annual meetings will be held to review the performance of the programme.
- The implementation of the plan requires regular monitoring of performance indicators.
- The list of performance monitoring indicators that will be used to measure the changes sought are defined in the performance framework

5.2 MONITORING, EVALUATION AND PERFORMANCE FRAMEWORK

In routine, disease programme will follow the reporting requirements at the country level and to the WHO. The essential indicators under each disease programme will be used to review the programme performance. Some of the important areas which needs to be looked into for efficient programme performance are: Proportion of cases reported Completeness rate and timeliness of monthly notification records (Specify diseases) (PC, CM).

5.3 PERFORMANCE FRAMEWORK

- The main focus will be on the integration of the surveillance system into the routine system with real-time data and epidemiological surveillance
- Surveillance standard operating procedures that will be developed for each disease
- SoPs needs to be developed for each sector like WASH, Veterinary department, Environment etc.

Table 40: Performance and monitoring framework

Strategic Objective	Strategic activities	Process indicators	Period						
			2024	2025	2026	2027	2028	2029	2030
Strengthen programme management, implementation and integration	Dedicated focal person for NTDs	Number of dedicated focal persons for NTDs /presence of a dedicated focal person for NTDs							
	Develop, review and endorse strategic plan, guidelines and SOPs for NTDs	Number of final documents (Strategic plan, guidelines and SOP's) for NTDs							
	Development of training and promotional materials	Number of training and promotional material							
	Integrate with WASH/Environmental/One Health	Proportion of integration activities held							
Scale up intergrated MDA to achieve 100% of country coverage for PCT diseases.	Mass Drug Administration for NTDs	Proportion of children who received drugs							
	Conduct NTDs Mapping (scabies and snake bite)	Number of NTDs Mapping done							
	Impact assessment survey for STH	Number of Impact assessment surveys for STH done							
Baseline assessment for scabies and snake bite	Intensify social mobilization and behaviour change communication for PC NTDs	Number of social mobilization and behaviour change communication activities for PC NTDs done							

To obtain eradication certificate	Obtain Yaws, Certification for eradication and Leprosy (elimination)	Number of verification activities done							
Integration of NTD M&E into the country's HMIS to strengthen reporting and response to NTDs.	Develop integrated NTD M&E Framework.	Number of NTD M&E frameworks developed							
	Establish multisectoral technical working group (TWG) – ToR, coordination and review mechanism	Proportion of sectors within the multisectoral TWG							
		Number of multisectoral TWG activities held							
	Review the existing data collection tools to include all NTDs	Number of review activities held							
To support operational research, documentation and evidence to guide innovative approaches to NTD interventions.	Build institutional capacity to conduct research	Number of personnel trained							
	Conduct operational research on NTDs	Number of researches conducted							
	Publish and disseminate research	Number of research articles published							
		Number of dissemination activities held							
To ensure data quality of NTDs.	Enhance effective digitalized NTD data management and dissemination	Number of digital platforms available for data management and dissemination							

		Number of equipment availed for digitalized NTD data management and dissemination							
To improve staff competency in NTD prevention and control.	Capacity building of all cardes of healthcare workers for human and animal health at all levels on NTDs	Proportion of personnel trained							
	Conduct experience sharing exercises through different platforms such as review meetings, PHC meetings	Proportion of experience-sharing meetings conducted							
	Conduct simulation exercises for NTD prevention and control	Proportion of simulation activities conducted							
To advocate for government ownership, guidance and leadership	Advocate for political prioritization on NTDs	Proportion of advocacy activities conducted							
	Commemoration of world NTDs days (Leprosy, Rabie, NTDs)	Number of commemoration days celebrated							
To empower local government and authorities in social mobilization	Capacity building of local governance	Number of Local governance personnel trained							
		Number of training activities conducted							
To strengthen the integration	Develop a costed plan for NTD programme implementation	Number of costed plans for NTD programme implementation							

and linkages of NTD program with financial plans	Production and distribution of NTD Surveillance IEC materials in local languages Develop Surveillance IEC materials	Number of final IEC developed and distributed							
		Number of Surveillance IEC materials developed							
	Strengthen advocacy, visibility and profile of NTDs for the elimination interventions at all levels								
To ensure timely, safe and effective supply chain management of quality assured NTD medicines and other products up to the last mile.	Procurement materials, equipment and supplies for NTD prevention and control for NTDs								
Strategic Objective	**Strategic activities**	**Process indicators**	**Period**						
			2024	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Strengthen programme management, implementation and integration	Dedicated focal person for NTDs	Number of dedicated focal persons for NTDs /presence of a dedicated focal person for NTDs							
	Develop, review and endorse strategic plan, guidelines and SOPs for NTDs	Number of final documents (Strategic plan, guidelines and SOP's) for NTDs							

	Development of training and promotional materials	Number of training and promotional material							
	Integrate with WASH/Environmental/One Health	Proportion of integration activities held							
Scale up intergrated MDA to achieve 100% of country coverage for PCT diseases.	Mass Drug Administration for NTDs	Proportion of children who received							
	Conduct NTDs Mapping (scabies and snake bite)	Number of NTDs Mapping done							
Baseline assessment for scabies and snake bite	Impact assessment survey for STH	Number of Impact assessment surveys for STH done							
	Intensify social mobilization and behaviour change communication for PC NTDs	Number of social mobilization and behaviour change communication activities for PC NTDs done							
To obtain eradication certificate	Obtain Yaws, Certification for eradication and Leprosy (elimination)	Number of verification activities done							
Integration of NTD M&E into the country's	Develop integrated NTD M&E Framework.	Number of NTD M&E frameworks developed							

HMIS to strengthen reporting and response to NTDs.	Establish multisectoral technical working group (TWG) – ToR, coordination and review mechanism	Proportion of sectors within the multisectoral TWG							
		Number of multisectoral TWG activities held							
	Review the existing data collection tools to include all NTDs	Number of review activities held							
To support operational research, documentation and evidence to guide innovative approaches to NTD interventions.	Build institutional capacity to conduct research	Number of personnel trained							
	Conduct operational research on NTDs	Number of researches conducted							
	Publish and disseminate research	Number of research articles published							
		Number of dissemination activities held							
To ensure data quality of NTDs.	Enhance effective digitalized NTD data management and dissemination	Number of digital platforms available for data management and dissemination							
		Number of equipment availed for digitalized NTD data management and dissemination							
To improve staff competency in NTD	Capacity building of all cardes of healthcare workers for human and animal health at all levels on NTDs	Proportion of personnel trained							

prevention and control.	Conduct experience sharing exercises through different platforms such as review meetings, PHC meetings	Proportion of experience-sharing meetings conducted							
	Conduct simulation exercises for NTD prevention and control	Proportion of simulation activities conducted							
To advocate for government ownership, guidance and leadership	Advocate for political prioritization on NTDs	Proportion of advocacy activities conducted							
	Commemoration of world NTDs days (Leprosy, Rabies, Dengue, NTDs)	Number of commemoration days celebrated							
To empower local government and authorities in social mobilization	Capacity building of local governance	Number of Local governance personnel trained							
		Number of training activities conducted							
To strengthen the integration and linkages of NTD program with financial plans	Develop a costed plan for NTD programme implementation	Number of costed plans for NTD programme implementation							
	Production and distribution of NTD Surveillance IEC materials in local languages Develop Surveillance IEC materials	Number of final IEC developed and distributed							
		Number of Surveillance IEC materials developed							

	Strengthen advocacy, visibility and profile of NTDs for the elimination interventions at all levels								
To ensure timely, safe and effective supply chain management of quality assured NTD medicines and other products up to the last mile.	Procurement materials, equipment and supplies for NTD prevention and control for NTDs								

5.4 ASSUMPTIONS, RISKS AND MITIGATIONS

Risk is the process of examining how likely risk will arise in the implementation of NTD programme. It also involves examining how the programme outcome and objectives might change due to the impact of the risk. The impact could be in terms of schedule, quality and cost.

Risk mitigation is the process of developing options and actions to enhance opportunities and reduce threats to the programme objectives. Risk mitigation progress monitoring includes tracking identifiable risks, identifying new risks, and evaluation risk process effectiveness throughout the programme period.

Table 20 describes the risk criteria and assessment before and after risk mitigation.

Table 41: Risk criteria and assessment

	Before risk mitigation				**After risk mitigation**		
Potential Risk	Likelihood of occurrence	Impact	Score	**Risk Mitigation**	Likelihood of occurrence	Impact	Score
	Certain =5 Likely =4 Possible =3 Unlikely =2 Rare =1	Severe =5 Major =4 Moderate =3 Minor =2 Insignificant =1	Likelihood x Impact		Certain =5 Likely =4 Possible =3 Unlikely =2 Rare =1	Severe =5 Major =4 Moderate =3 Minor =2 Insignificant =1	Likelihood x Impact
COVID-19 and its effect on the NTD programme	5	5	25	Partners and technical working groups of MoH will develop SOPs on safe delivery of NTD interventions .	4	4	16
Reduced NTD financial resources. Abrupt reduction of donor funding	4	5	20	NTD sustainability framework will be implemented . Focus will be given to domestic resource	3	3	9

				mobilization. With focus on innovative domestic resource mobilizations, inclusion of NTDs with the health insurance benefit packages and working with local private philanthropies.			
Governance instability	4	5	20	NTD sustainability framework will be implemented.	3	3	9
Inaccessibility of the drugs to reach clients/end users	3	4	12	Develop a strategy that will address accessibility of drugs	2	2	4

Risk rating = Likelihood x Impact	
19-25	Severe
13-18	Major
7-12	Moderate
1-6	Minor

6 PART V: BUDGET ESTIMATES

6.1 BUDGET ESTIMATES PER PILLAR

Estimates for the implementation of the targeted NTDs is detailed in Table 21 below.

Table 42: Budget Estimated Per Pillar

Strategic Goal and Objectives	Strategic activities	Resources needed	Unit cost (Maloti; M)	Frequency	Total in 2025-2030 (6 years)	Total cost
PILLAR 1: Accelerate Programmatic Action						
Goal - To reduce morbidity and eliminate NTDs as a public health problem by 2030						
Strengthen programme management, implementation and integration	Dedicated focal person for NTDs	Through existing staff	NA			
	Develop, review and endorse strategic plan, guidelines and SOPs for NTDs	Funds, logistics and materials				
	Workshop for developing SoPs for Leprosy, Scabies, STH, Schisto, Snake Bite, Guidelines	Funds, logistics	260375	3	2	1562250
	Validation of guidelines	Funds, HR and materials	130188	2	1	260375
	Printing of guidelines	Funds, logistics	300,000	3	2	1800000
	Dissemination of guidellines	Funds, logistics	400,000	3	2	2400000
	Development of training and promotional materials	Funds and materials	260375	3	2	1562250
	Printing of training and promotional materials	Funds and materials	300,000	3	2	1800000

	Integrate with WASH/Environmental Health/One health	Funds	260375	1	1	260375
Scale up intergrated MDA to achieve 100% of country coverage for PCT diseases.	Integrated Mass Drug Administration for NTDs	Budget,HR,materials,transport,commodities and other logistics	56901600	1	6	341409600
	Integrated NTDs Mapping and impact assessment (STH, scabies, snake bite, Schistosomiasis)	Transport, HR, Budget	6,000,000	2	2	24000000
	Intensify social mobilization and behaivour change communication for PC NTDs	HR, Budget,transport and other logistics	27576000	1	6	10656000
	Radio spots for health messages	Funds	25000	5	6	750000
To obtain eradication certificate	Verification of Leprosy elimination	HR, Budget,transport and other logistics	560000	1	1	560000
	Certification of Guina worm disease elimination	Expert, Funds	560000	1	1	560000
	Certification of Yaws elimination	HR, Budget,transport and other logistics	560000	1	1	560000
Strategic Goal and Objectives	**Strategic activities**	**Resources needed**	**Unit cost (M)**	**Frequency**	**Total in 2025-2030 (6 years)**	**Total cost**
Pillar 2: Intensify cross-cutting approaches						

Goal: To enhance capacity building, monitoring and evaluation, surveillance and innovative research to improve the effectiveness of NTD program.						
Promote integrated NTD M&E Framework within the context of HMIS to strengthen reporting and response to NTDs.	Develop integrated NTD M&E Framework.	funds, HR, transport, stationery	260375	1	1	260375
	Validation of guidelines		130188	1	1	130188
	Dissemination of guidellines		400000	1	1	400000
	Establish multisectoral technical working group (TWG) – ToR, coordination and review mechanism	funds, HR	10000	4	6	240000
	Review the existing data collection tools to include all NTDs	funds, HR, stationery`	260375	1	2	520750
To support operational research, documentation and evidence to guide innovative approaches to NTD interventions.	Build institutional capacity to conduct research	funds, HR, internet Connectivity,				
	Conduct operational research on NTDs	Experts, Funds	185000	1	6	1110000
	Publish and disseminate research	Experts, Funds	75000	1	6	450000
To ensure data quality of NTDs.	Enhance effective digitalized NTD data management and dissemination - Procurment of Laptops, tabs	gadgets (computers, tablets), internet, HR, funds	453000	1	1	453000
	Procurment of internet	Internet	26000	1	6	156000

To improve staff competency in NTD prevention and control.	Capacity building of all cardes of healthcare workers for human and animal health at all levels on NTDs	funds, HR, stationery, transport, guidelines`				
	Training of trainers at national level	Funds, expert, logistics	260375	1	2	520750
	Training of district health care workers (this is for 12 districts)	Funds, expert, logistics	260375	12	3	9373500
	Training of health facility level workers (this is for 12 districts)	Funds, expert, logistics	260375	12	6	18747000
	NTD focal point cross country learning	Travel and accomodation	90000	1	2	180000
	Skiil enhancement training for Lab technicians in NICD South Africa	Travel	120500	1	6	723000
	Conducting national NTDs review meetings	funds, internet, transport, HR	260375	2	6	3124500
	Conducting district NTDs review meetings		260375	12	6	18747000
	Conduct simulation exercises for NTD prevention and control (Table top and drill)	funds, internet, transport, HR, equipment, commodities, supplies	105000	1	2	210000

Strategic Goal and Objectives	Strategic activities	Resources needed	Unit cost (M)	Frequency	Total in 2025-2030 (6 years)	Total cost
Pillar 2: Intensify cross-cutting approaches						
Goal: To enhance capacity building, monitoring and evaluation, surveillance and innovative research to improve the effectiveness of NTD program.						
PILLAR 3: Operating Models and Culture to Facilitate Country Ownership						
Goal - To promote and strengthen government ownership						
To advocate for government ownership, guidance and leadership	Advocate for support for implementation of NTDs activites					0
	Present the NTD MP to senior management in breakfast meeting	Funds	15000	1	1	15000
	Present the NTD MP to stakeholders and partners in breakfast meeting	Funds	15000	1	1	15000
	Commemoration of world NTDs days (Leprosy, Rabies, NTDs)	HR, Budget, materials	141000	2	6	1692000
To empower local government and authorities in social mobilization	Sensitization of local governance	HR, Budget, materials	6600	10	6	396000
Pillar 4: Strengthen Coordination, Communication and Resource Mobilization for the elimination of NTDs						
Goal - *To enhance resource mobilization and planning for results in NTD control*						
To strengthen the integration and linkages of NTD	Develop a costed plan for NTD programme implementation	HR, funds	0			0
	Production and distribution of NTD Surveillance IEC materials in local languages	HR, funds	0			0

program with financial plans	Strengthen advocacy, visibility and profile of NTDs for the elimination interventions at all levels	HR, funds	0			0
To ensure timely, safe and effective supply chain management of quality assured NTD medicines and other products up to the last mile.	Procurement of materials, equipment and supplies for NTD prevention and control	Funds, HR, transport	0			0
Total						**445,604,913**

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