THE KINGDOM OF SWAZILAND

MASTERPLAN TOWARDS THE ELIMINATION OF NEGLECTED TROPICAL DISEASES - 2015- 2020

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INTRODUCTION

Neglected Tropical Diseases (NTDs) are a group of diseases that affect the poor and marginalized communities in our societies. They are usually found in the developing world and thrive well in the tropics where the climate and environmental conditions are conducive.

The NTDs portfolio includes protozoa infections like *Leishmaniasis*, *Human African* and *American Trypanososmiasis*; bacterial infections that include trachoma, leprosy, and buruli ulcer, and those that are caused by helminthes such as Soil Transmitted Helminthes (STH) (*Hookworms, Ascariasis, Trichuriasis*, *Lymphatic Filariasis, Onchocerciasis, Drancunculiasis, Cysticercosis* and *Schistosomiasis*. Although these NTDs are preventable and can be controlled, an estimated 1 billion people, which is one seventh of the world's population, are affected by these NTDs. About 500,000 to 1 million deaths occur annually as a result of NTDs.

NTDs are chronic, disfiguring and disabling conditions. They are among the leading perpetuators of poverty as they significantly diminish economic productivity in affected adults and intellectual and physical development of the next generation, thus reinforcing a cycle of poverty. Among these NTDs are those targeted for control and include Soil Transmitted Helminthes (STH), *Onchocerciasis* and *Lymphatic Filariasis* .Those for elimination are Schistosomiasis, STH and Trachoma which are also the commonest NTDs globally.

In June 2012, pharmaceutical companies, donors, endemic countries and non-Governmental Organizations, inspired by the World Health Organization's (WHO) Road Map on NTDs, adopted the London Declaration on NTDs of 2012 to contribute to technical knowledge, drugs, research funding and other resources to treat and prevent NTDs among the world's poorest populations. This public–private partnership has facilitated progress in the fight against NTDs as a result of the donations received from the partners. It is worth noting however, that the available financial resources and global political commitments will not be sufficient to reach the established World Health Assembly goals.

The control and elimination of the NTDs requires integrated programs with the ultimate goal of ensuring effectiveness and sustainability of health systems in the developing world. To this end,

i. Collaboration amongst a range of institutions across disease areas to deliver an integrated NTDs control approach should be prioritised. Initiatives, such as the International Health Partnership (IHP), which recognize the need for joint planning among partners, in direct collaboration with ministries of health may be viable mechanisms in the control and eradication strategies of NTDs;
ii. Coordination and sustainability on the part of both donors and national governments including from the Ministries of Health and Finance should be strengthened;
iii. Accountability mechanisms to ensure that all partners deliver on agreed commitments is necessary in enhancing the implementation processes;
iv. The role of the World Health Organisation, through its country offices and direct links with ministries of health, as part of their mandate, has the function of control and elimination of NTDs and should continue to collaborate with governments and development partners in this effort.

The Swaziland National Bilharzia and Worms Control Programme, which serves as the national NTDs Programme, was developed in 1981. Its mandate is dual in approach to morbidity control, with de-worming for the schistosomiasis and soil – transmitted Helminthiasis is done repeatedly and regularly with an inexpensive single-dose and highly effective drugs of choice. These drugs are so safe that they can be given to all age groups at risk of infection. De-worming helps meet the following Millennium Development Goals (MDGs)that will contribute to attainment of vision 2022:

a) MDG 1: Eradicate extreme poverty and hunger,
b) MDG 2: Achieve universal primary education,
c) MDG 4: Reduce child mortality,
d) MDG 5: Improve maternal health,
e) MDG 6: Combat HIV/AIDS, malaria other diseases and to develop a global partnership.

To this end, the Programme is engaged in efforts to strengthen disease surveillance in all school to control infection. All high-risk groups have access to routine deworming to prevalent helminth infection. The National Laboratory is centrally located to provide access for suspect population with screening for helminth infections and treatment for laboratory confirmed attendants.

The comprehensive Swaziland multi-year plan provides the national NTDs situational analysis, with strategies that will be used to prevent and control NTDs in the country. The multi- year plan further articulates how these strategies will be implemented through strengthening of the national NTDs program at all levels of care and working in collaboration with NTDs partners. The master plan is a guiding tool as to how the NTDs agenda should move ahead in Swaziland. It is a framework for partners' coordination, harmonization and alignment.

PART 1: SITUATION ANALYSIS

1.1 Country profile

1.1.1 Geographical characteristics

The Kingdom of Swaziland is a small landlocked country in Southern Africa with an estimated area of 17 363 square kilometres of which 160 square kilometres are water. The country is located at the geographical coordinates 26°30′S 31°30′E .Swaziland shares its borders with Mozambique to the East for 105 kilometres, the Republic of South Africa to the North, West and South for 430 kilometres giving a total boundary length of 535 kilometres. Since Swaziland is landlocked it has neither coastline nor maritime claims. Figure 1 shows the map of Swaziland by region and towns.

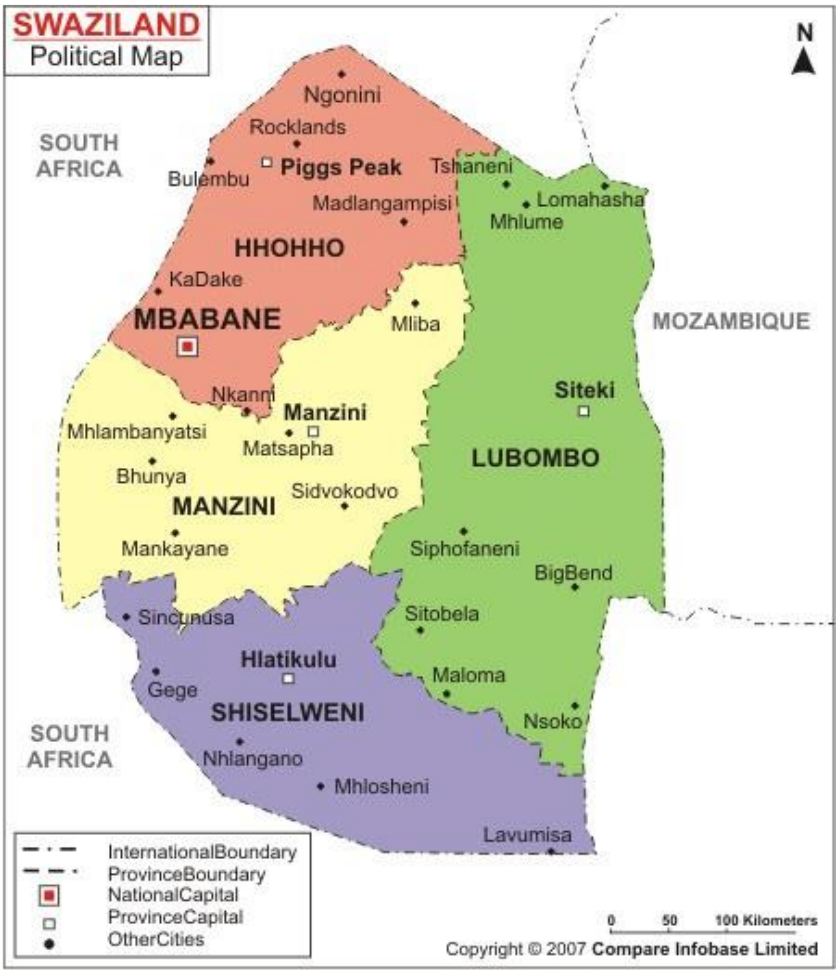

Figure 1: The map of Swaziland showing regions and towns

1.1 .2 PHYSICAL FEATURES AND CLIMATIC CONDITIONS

The country is divided into four ecological zones namely; the Highveld, Lowveld, Middleveld and the Lubombo Plateau as shown in Figure 2. This classification is done taking into account elevation, landforms, geology, soils and vegetation. The four ecological zones are further divided into six physiographic zones which are; Highveld, Upper Middleveld, Lower Middleveld, Western Lowveld, Eastern Lowveld and Lubombo Range(Murdoch,1970; Remmelzwaal, 1993). The six zones are subdivided according to soil and terrain characteristics (Brown, 2011). The terrain of Swaziland largely consists of mountains and hills, with some moderately sloping plains. The Highveld is the upper part of the overall escarpment and consists of a complex of steep slopes between low and high levels, dissected plateaux, plateau remnants and associated hills, valleys and basins.

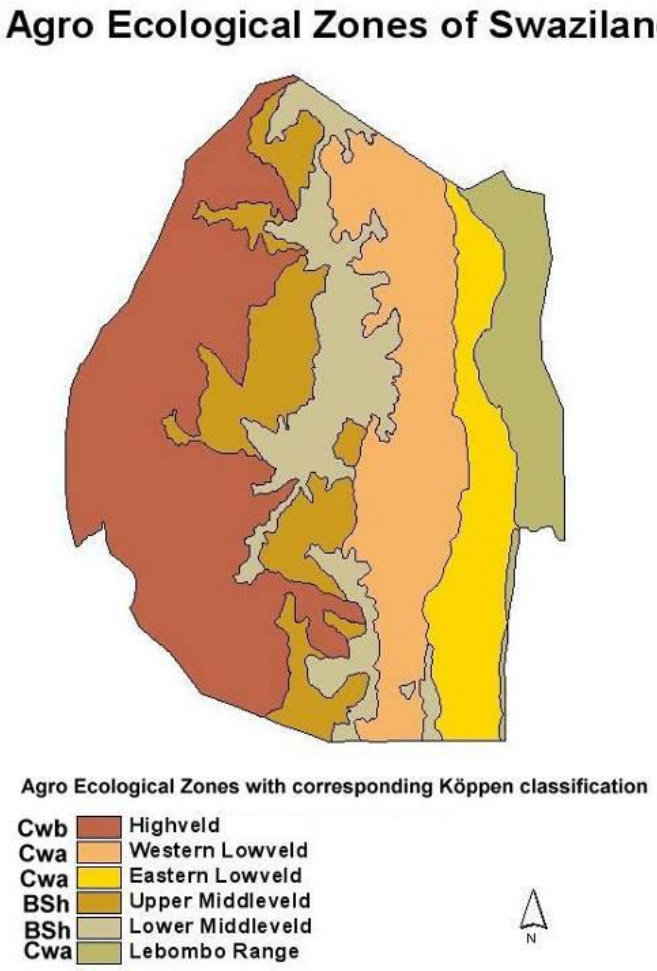

Figure 2: The ecological and physiographic zones of Swaziland

The Lowveld is the low lying part of Swaziland and its altitude ranges from 200m to 400m on average. The lowest point of the Lowveld is the Great Usutu River in Big Bend and the the Middleveld ranges from 400m to 800m. The Highveld ranges from 900m to 1400m on average and the highest point is Emlembe. The Lubombo Plateau ranges from 250m to 600m (Brown, 2011).

The country enjoys a sub-tropical to near-temperate climate along the western highlands, which rises to an altitude of over 1,800 meters above sea level, while the low-lying areas are generally hot. The ecological zones have diverse climate conditions ranging from sub-humid and temperate in the Highveld to semi-arid and warm in the Lowveld. Generally, rain falls mostly during the summer months, often in the form of thunderstorms and winter is the dry season. Temperatures are lower in the Highveld and increases towards the Lowveld. Annual rainfall is highest on the Highveld in the West, between 1,000 and 2,000 mm depending on the year with annual average temperatures of 17 degrees Celsius. The further East, the less rain, with the Lowveld recording 500 to 900 mm per annum and annual average temperatures of 22 degrees Celsius (Brown, 2011).

1.1.3. ADMINISTRATIVE STRUCTURES, DEMOGRAPHY AND COMMUNITY STRUCTURES

1.3.1 Administrative structures

Administratively, the country is divided into four regions, fifty-five Tinkhundla centres and 360 chiefdoms. The four regions are Hhohho, Manzini, Shiselweni and Lubombo.

The administrative system is made up of a traditional Tinkhundla system and western-based administrative organisation. The latter is headed by the Prime Minister and made up of the Cabinet and Parliament whose members are elected by the public. The modern administrative structure consists of various sectoral Ministries headed by Ministers and run by Principal Secretaries. The Tinkhundla system of communal organisation within chiefdoms provides a foundation on which to implement government’s decentralisation policy.

1.3.2 Population

According to the Swaziland Population Census 2007, the total population was 1,018,449 in 2007 and estimated to be 1.093 million in 2013 based on projections from the 2007 census. Population density is approximately 57 persons per square kilometre. Females make up 52.6% of the total population and the corresponding proportion for males is 47.4% as shown in table 1. Almost half (48%) of households are headed by women. The country has a predominantly rural population (77%). The population of Swaziland is generally young, with 47% of the total being aged less than 18 years and only 4 percent is aged 65 years or older. The total fertility rate was estimated at 3.8 births per 1000 women in 2007, representing a significant decline from 6.4 births per 1000 women in 1986. Declining fertility levels coupled with a rising rate of mortality levels has been responsible for the low annual rates of population growth.

Table 1: Swaziland population by gender, region and density

	Population, 2007			% of population	2013 projected population	Surface area (sq km)	2013 Population density
	Females	Males	Total				
Hhohho	147,955	134,879	282,734	28%	309,184	3,562	86.8
Lubombo	107,758	99,973	207,731	20%	221,837	5,945	37.3
Manzini	169,622	149,908	319,530	31%	352,568	4,071	86.6
Shiselweni	111,786	96,668	208,454	20%	209,568	3,779	55.5
Total	**537,121**	**481,428**	**1,018,549**	**100%**	**1,093,157**	**17,357**	**63.0**

Sources: CSO, 2007; UNFPA, 2007

The 55 Tinkhundla are distributed in the four regions. Manzini region has the highest number (16), followed by Hhohho and Shiselweni with 14, while Lubombo has the lowest at 11. Refer to table 2 for population distribution and other characteristics.

Table 2: National Population Data

Region	Inkhundla	No. of chiefdoms	Total Population	Under 5s	5-14 years	No. Primary schools	No. health facilities
Hhohho	Hhukwini	2	9837	1279	3935	6	1
	Lobamba	5	25968	3376	10387	8	7
	Mandlangempisi	6	16972	2206	6789	14	4

	Maphalaleni	10	19454	2529	7782	11	3
	Mayiwane	5	15120	1966	6048	11	3
	Mbabane East	3	36792	4783	14717	17	29
	Mbabane West	3	23489	3054	9396	6	9
	Mhlangatane	9	22421	2915	8968	12	2
	Motjane	7	30890	4016	12356	15	5
	Ndzingeni	7	19115	2485	7646	15	3
	Nkhaba	5	15704	2042	6282	17	2
	Ntfonjeni	7	21142	2748	8457	13	3
	Pigg's Peak	6	17359	2257	6944	13	10
	Timphisini	4	8471	1101	3388	8	2
Total		79	282734	36755	113094	163	
Lubombo	Dvokodvweni	7	*28252*	3673	11301	14	5
	Hlane	4	*7091*	922	2836	6	1
	Lomahasha	4	*22239*	2891	8896	10	4
	Lubuli	6	*14419*	1874	5768	10	4
	Lugongolweni	4	*15519*	2017	6208	16	8
	Tikhuba	4	*12940*	1682	5176	11	1
	Mhlume	5	*16981*	2208	6792	8	5
	Mpolonjeni	5	*20563*	2673	8225	6	2
	Nkilongo	6	*15907*	2068	6363	8	6
	Siphofaneni	10	*23488*	3053	9395	18	6
	Sithobela	3	*30332*	3943	12133	13	3
Total		58	*207731*	27005	83092	120	
Manzini	Kukhanyeni	3	*18085*	2351	7234	9	3
	Kwaluseni	3	*41780*	5431	16712	7	26
	La-Mgabhi	6	*11924*	1550	4770	6	1
	Ludzeludze	3	*28355*	3686	11342	13	2

	Mafutseni	6	*15573*	2024	6229	12	5
	Mahlangatsha	5	*18788*	2442	7515	15	4
	Lobamba Lomdzala	3	*18797*	2444	7519	7	9
	Mangcongco	6	*6603*	858	2641	4	2
	Manzini North	6	*39529*	5139	15812	8	
	Manzini South	6	*15417*	2004	6167	13	44
	Mhlambanyatsi	6	*8982*	1168	3593	12	3
	Mkhiweni	3	*23929*	3111	9572	9	6
	Mthongwaneni	5	*17302*	2249	6921	9	1
	Ngwempisi	10	*27232*	3540	10893	27	5
	Nhlambeni	4	*12466*	1621	4986	7	2
	Ntontozi	7	*14768*	1920	5907	9	2
Total		82	*319530*	41539	127812	167	
Shiselweni	Gege	11	*18196*	2365	7278	12	3
	Hosea	6	*19608*	2549	7843	9	2
	Kubuta	6	*6922*	900	2769	11	5
	Somntongo	7	*5457*	709	2183	9	1
	Maseyisini	6	*27967*	3636	11187	15	5
	Matsanjeni	7	*16238*	2111	6495	11	2
	Shiselweni 2	9	*26067*	3389	10427	16	1
	Mtsambama	6	*18900*	2457	7560	10	2
	Ngudzeni	8	*8056*	1047	3222	5	1
	Nkwene	5	*7167*	932	2867	10	1
	Sandleni	12	*13210*	1717	5284	16	3
	Shiselweni 1	6	*12823*	1667	5129	12	2
	Sigwe	4	*11776*	1531	4710	9	1
	Zombodze Emuva	4	*16067*	2089	6427	7	1

Sub-Total		97	*208454*	27099	83382	152	
Total		316	1018449	132398	407380	595	

1.3.3 Socio-economic status and indicators

According to the World Bank, Swaziland, with a Gross National Income (GNI) of $2,860 in 2012, comfortably sits in the lower middle-income category of countries ($1,036 to $4,085). The Swazi economy is relatively diversified compared to other small economies and economic growth has averaged to 1.3 percent in the past five years, against a national target of 5 percent. Nominal Gross Domestic Product (GDP) was E32.4 billion in 2012 (around US$3.6 billion), driven mainly by manufacturing, agriculture and wholesale and retail industry. Agro-based manufacturing, specifically sugar processing, wood pulp production and food canning, contributes a growing share to Swaziland's Gross Domestic Product (GDP). Supported by trade preferences, the country exports a large range of products including sugar, textiles, soft drink concentrates, canned fruit and citrus fruits. Swaziland is integrated into the global economy and is a member of the Southern African Customs Union (SACU), Southern African Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA). The country is heavily reliant on SACU revenues for its GDP and has been the case for the past years. However, the global economic crisis, a depression of prices in the agricultural sector, persistent drought climate change, and the human toll of HIV/AIDS have compromised the country's ability to implement policies that will help achieve its goals for health, education, job creation, safe water, sanitation, and rural development. The economic growth rate declined from an average of 10 percent in the 1990s to 3 percent in the last ten years.

The African Development Bank (ADB) (2011) in their analysis of Swaziland highlighted that while long-term development challenges remain unchanged, the unstable macroeconomic environment has complicated government's response. Undertaking economic and structural reforms, set out in the Fiscal Adjustment Roadmap (FAR) of 2010/11-2014/15, and the 2011 Economic Recovery Strategy (ERS) have become a top priority for government in order to respond to a reduced

resource envelope, following an unprecedented decline in SACU revenue. The FAR focuses on domestic revenue enhancement, expenditure rationalisation and debt management. An Economic Recovery Strategy (ERS) 2011 was also prepared by Ministry of Economic Planning and Development (MEPD) to support the removal of long-standing impediments to economic activity which have contributed to sluggish economic growth over the past decade.

1.3.4 Transportation and Communication

Swaziland communication systems comprise of airports, road network system, and railway. Swaziland has 2 airports, Matsapha and King Mswati III international airport. Road network is good with major roads tarred. Some roads are still gravel and dirty and during the wet season some of these untarred roads become impassable. Railway Systems links Swaziland with South Africa and Mozambique and transports goods only. Telecommunications services are among the best in the Sub-Saharan Africa. These include mobile network provided by MTN, radio and television which covers most parts of the country.

1.3.5 Water and sanitation

Access to safe water and sanitation is a very important ingredient in the control of NTDs and as such intervention should be incorporated in the prevention strategies. About 91% of the urban population has access to safe water, while only 37% for the rural population had access according to Swaziland Human Development Report, in 2000. More recent reports show that the rural access to safe water had improved to 58% in 2007 (DHS, 2007) and to 60% in 2010 (MICS, 2010). According to MICS 2014 access to safe water improved in urban areas to 96% while in rural areas it improved to 63%.

Access to safe sanitation shows a decline from 73% in 2010 to 55% in 2014. Notably though, was that there was an increase in urban water access from 91% in 2007 to 96% in 2014. Rural access to safe water increased from 58% in 2007 to 63% in 2014 as shown in figure 3:

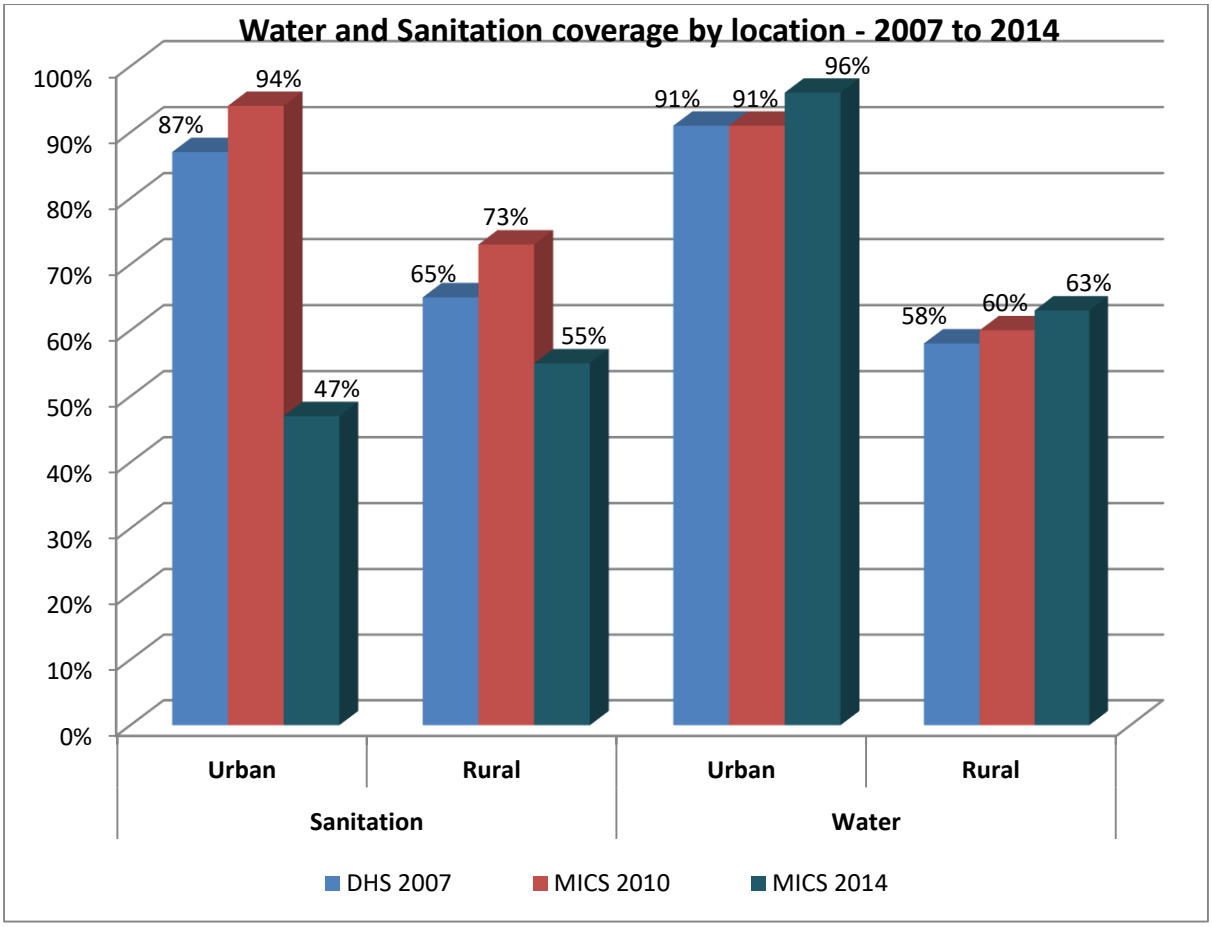

Figure 3: Water and Sanitation coverage by location: 2007-2014

There has been a drastic decline in the sanitation coverage both in urban and rural area in MICS 2014. The reason is that there has been a revision of the definition for improved sanitation. So this implies that some of the structures previously regarded as improved sanitation in both DHS 2007 and MICS 2010 no longer meet the minimum standard and as such are now considered unimproved.

1.2. HEALTH SYSTEM SITUATION ANALYSIS

1.2.1 Health system goals and priorities

The top 10 conditions reported for outpatients departments and top 10 causes of deaths and health risk factors are presented in a table below. In children under five years of age, the leading conditions reported at Outpatient Department (OPD) were upper and lower respiratory infections, skin disorders, acute diarrhoea, digestive disorders, eye

diseases, oral health conditions, ear problems and injuries. Leading causes of admission for this age group are gastroenteritis and colitis, upper and lower respiratory tract infections/pulmonary TB, AIDS, anaemia and nutrition-related disorders.

Compared to other diseases, HIV, AIDS and TB have imposed by far the largest burden of disease on the population. HIV prevalence among 15-49 year olds is currently estimated at 26 percent and is one of the highest in the world. The rate is higher among women (32%) than men (15%) and prevalence in women peaks at 49% in woman aged 25-29 years. Five percent of children aged 2-4 years are HIV positive, a measure of high mother to child transmission. Unsafe sex practices, intergenerational sex, multiple concurrent partners and misconceptions about HIV transmission account for high levels of HIV prevalence among young persons, pregnant women and other population groups. Tuberculosis (TB) sconstitutes a major public health problem in the country. With an estimated TB incidence of above 1200 per 100,000 population, the country has consistently had the highest TB burden per capita in the world (WHO 2009).

It is important to note the youthful nature of the Swaziland population (40% below 15 years) (MICS 2010). The risk of dying is higher in a child born within two years of a preceding birth. Neonatal mortality is an important aspect for focus considering high relative proportions in some regions when compared with post-neonatal mortality (Hhohho and Lubombo) (MICS 2010).

The high prevalence of HIV (26% according to 2006/07 SDHS) and recent projections showing continuing new infections most likely influenced by misconceptions of HIV among young people (only 54%

have comprehensive knowledge) underlines the importance of reaching out more effectively to the young people with correct information and better methods of engaging them. Counselling, testing and receiving results is lowest among the youngest age group (age 15-19 years). There is a significant proportion (about 30%) of those that had sex with more than one partner who did **not** use a condom.

Compared to other diseases, HIV, AIDS and TB have imposed by far the largest burden of disease on the population. The response from the public health services cluster is encouraging: The cluster had the highest performance of 165 (45%) completed tasks out of 364 tasks (Situation Analysis report 2014). The highest completion rates were achieved for scaling up TB and Direct Observation Treatment Short course (DOTS) intervention (13 tasks completed out of 15).

1.2.2 Analysis of overall health system

The health status in Swaziland is below expectation, with life expectancy at birth estimated at only 54 years (52 years for males, and 55 years for females) according to the WHO 2014 World Health Statistics. This level is very low, as compared to other middle-income countries where the expectation of life (at birth) on average ranges from 63.8 – 72 years for males, and 67.9 – 76.2 years for females. The rate is even lower than that for low-income countries (60.2 years for males, and 63.1 years for females). The rate is however higher than it was in the year 2000, when it had dropped to 48 years (48 and 49 years for males and females respectively), though not yet at the level of 1990 where it was at 61 years (62 and 61 years for males and females respectively).

All age groups have experienced significant increases in mortality in the preceding 20 years. However, apart from the adult mortality rate all the other age groups have been experiencing reducing mortality in the past 10 years. At present, though, mortality rates for all age groups are still higher than they were in the year 1990.

The increase in overall mortality and reduction in life expectancy of life has been attributed to the HIV/AIDS epidemic that has ravaged the country. HIV prevalence has been increasing in the country, at a much higher rate than most other diseases.

1.2.2 Service delivery

The service delivery system in the country is structured around a four-tier system of service provision: tier one (community), two (clinics), three (health centres and regional referrals), and four (national referrals) as shown in table 3.

- **Community:** This level is the foundation of service delivery. Services at this level should include community-based promotion, prevention and basic curative care.
- **Rural clinics:** Rural clinics are categorized into Type A (without maternity wing) and Type B (with maternity wing). Rural clinics form the backbone of the primary health care infrastructure. They are the bases from which primary care programmes operate and provide first-line curative and emergency interventions to the rural population.
- **Public health units:** The public health services include promotive, preventive, outpatient curative health services, outreach care and interface with community-based health systems, including households and individuals.
- **Health centres:** The purpose of the health centres is to provide an intermediate range of services at this level include promotive, preventive, outpatient curative, maternity and inpatient services as well as diagnostic services, outreach care and interface with community-based health systems.
- **Regional hospitals:** Regional Referral hospitals should provide, in addition to primary hospital services, curative and rehabilitative as well as selected specialist services. They are referral facilities and are responsible for providing technical support and supervision to sub-regional and primary health care facilities within their defined catchment areas. The regional hospitals may also provide in-service training, consultation and research in support of the primary health care programmes.
- **National referral hospital:** There are three national referral hospitals, two of which are specialty hospitals, the TB and the psychiatric centre, and Mbabane Government Hospital as the main referral hospital.

The service delivery systems are delivered through a decentralized system from the central Ministry to the four regions of Hhohho, Manzini, Lubombo and Shiselweni. The central level performs executive and administrative functions as well as providing strategic guidance on delivery of the Essential Health Care Package (EHCP) at all service delivery levels. At regional level, each region is headed by a regional Health Administrator and supported by the Regional Health Management Teams (RHMTs) as shown in figure 4.

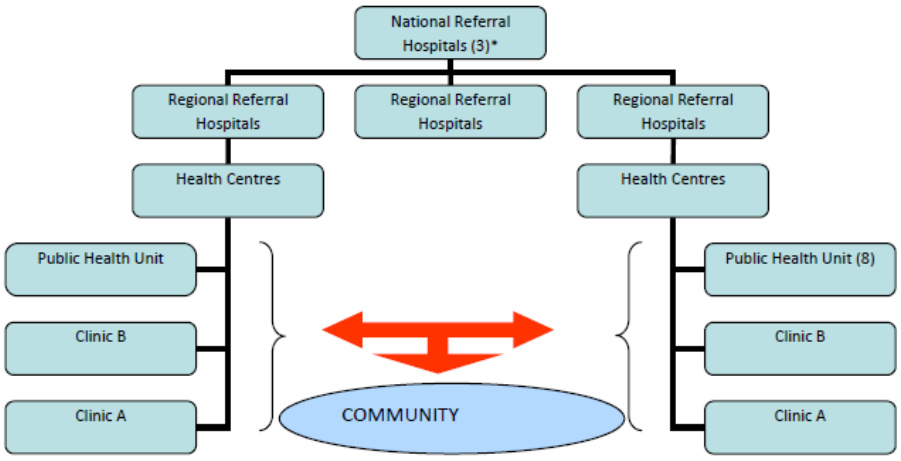

Figure 4: Structure of the health service delivery system

About 85% of the country's population lives within a radius of 8km from a health facility (MOH policy 2007).

Table 3: Service delivery capacity, by region

Region	Numbers of facilities				# of facilities per 10,000 population (2013)
	Total	Tier 2	Tier 3	Tier 4	
Hhohho	82	79	3	1	2.7
Lubombo	48	46	2	0	2.2
Manzini	121	117	2	2	3.4
Shiselweni	36	33	3	0	1.7
Total	**287**	**274**	**10**	**3**	**2.6**

Source: Service Availability Mapping, 2013

Organization of Health Services

Functionally, the public health system is decentralized from the central MoH to the four Regional Health Offices (RHO) in all regions. The MoH performs executive and administrative functions, as well as providing strategic guidance on the delivery of the essential health-care package at all levels of service delivery. At the regional

level, it is the responsibility of the regional health offices to implement national health policies and plans. The RHO is supported by the Regional Health Management Team (RHMT) whose mandate is to provide technical leadership in executing MoH policies.

At the community level, there is a network of community health workers, including rural health motivators (RHMs), to promote community participation in health activities in their areas. There are also community health committees that assist in the general management of health facilities.

Health services provided by Non-Governmental Organizations (NGOs), including Faith Based Organizations (FBOs) and the private sector, are regulated and closely monitored by the MoH.

The health service system consists of three main levels: primary, secondary and tertiary. At the primary level, there are community-based health-care workers, such as 4700−5000 RHMs and various HIV and AIDS programme volunteers, 162 clinics (24 clinics with maternity services and 138 clinics without them) and 187 outreach sites run by nurses. The secondary level comprises of five health centres which offer both outpatient and inpatient services (with 20−40 beds) and eight public health units for referral. The health centres also serve as referral points for the primary level. The tertiary level comprises of four regional hospitals – one in each of the four regions. The country also has two specialized hospitals (a national referral psychiatric hospital and a national referral TB hospital), both of which are in the Manzini region.

There are two nonprofit (mission) hospitals in two regions (Good Shepherd hospital in Lubombo and Raleigh Fitkin Memorial Hospital in Manzini), both receiving subsidies from the MoH. There are also 73 other mission facilities, including health centres, clinics and outreach services. There are 22 industry-supported health centres and clinics, 53 private clinics and four NGOs providing health care as shown in table 4.

Table 4: Distribution of Health Facilities across Regions by type

Facility type	**Hhohho**		**Lubombo**		**Manzini**		**Shiselweni**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
National Referral hospital	1	33.3%	0	0.0%	2	66.7%	0	0.0%	**3**	**1.1%**

Regional hospital	1	20.0%	1	20.0%	2	40.0%	1	20.0%	**5**	**1.9%**
Hospital	2	50.0%	1	25.0%	1	25.0%	0	0.0%	**4**	**1.5%**
Health centre	2	40.0%	1	20.0%	0	0.0%	2	40.0%	**5**	**1.9%**
Public health unit	2	25.0%	1	12.5%	2	25.0%	3	37.5%	**8**	**3.0%**
Clinic with maternity	4	16.0%	12	48.0%	7	28.0%	2	8.0%	**25**	**9.4%**
Clinic without maternity	49	26.3%	33	17.7%	76	40.9%	28	15.1%	**186**	**70.2%**
Specialized facility	10	34.5%	4	13.8%	14	48.3%	1	3.4%	**29**	**10.9%**
Total	**71**	**26.8%**	**53**	**20.0%**	**104**	**39.2%**	**37**	**14.0%**	**265**	**100.0%**

S**ource: MoH (2011) Service Availability Mapping**

Access to healthcare services

Currently, up to 85% of the population lives within eight kilometers of a health facility (MoH 2010 Service Availability Mapping Report). However, the quality and availability of health services is affected by the allocation of resources. There is ample evidence to suggest that the allocation of health resources tend to favour urban populations over rural ones. Furthermore, although physical access to health services appears quite reasonable compared to other African countries, the quality of care provided remains a challenge due to, among other things, the heavy disease burden, a chronic shortage of human resources in the public sector, deteriorating infrastructure, inadequate budget allocations and weak supportive supervision systems (World Bank 2009). Several specialist services such as urology, dermatology and highly specialized surgeries are not currently offered in the country due to critical shortage of specialists and medical equipment. Patients requiring these services are either transferred to hospitals in South Africa under the Phalala Special Care Medical Aid Fund, or are treated in Swaziland by visiting specialists under special bilateral technical assistance arrangements.

Utilization of skilled health workers and health infrastructure requires better coordination and planning. There are incidences where midwives are deployed to facilities without maternity services. Similarly, there are facilities with maternity services and theatres that do not have midwives and medical doctors deployed to work there. Consequently, patients served by these facilities requiring maternity or theatres services end up being referred to other facilities that have a combination of maternity or theatre facilities and midwives or medical doctors.

Healthcare Financing

The government allocation to the health sector has maintained an average of 7.1% (MOF, 2005) and has recently begun to rise, reaching 9% in 2009/10 and 8% in 2010/11(MoH 2012). However, despite the recent increase in the government allocation to the health sector, this still falls short of the 15% of the national budget that is recommended by the Abuja Declaration of April 2001 especially in view of the increasing disease burden. Per capita health spending by the government declined steeply by 38% between 1998 and 2003, from US$54 to US$39 (World Bank, 2006). However, since 2007 it has shown a significant increase and in 2009−2010 it reached US$129 (Central Bank of Swaziland, 2009).This is higher than the recommended minimum per capita expenditure of US$34 recommended for developing countries.

The allocation of public health expenditures is biased in favour of less cost-effective urban-based curative health interventions, and central administration. Approximately 72% of the national health budget is absorbed by curative services despite a call by the 1983 National Health Policy for increased investment in preventive and promotive health activities (World Bank, 2006). As a result, donors heavily support preventive health programmes such as HIV/AIDS, sexually transmitted infections, the expanded programme of immunization (EPI), TB, malaria and sexual and reproductive health, whereas the government has been consistently unable to meet the need.

Health Information System

The health sector recognizes the role of timely, complete and accurate health information which helps in availing required evidence for prompt decision making. Therefore a fully functional and resourced health information system that provides strategic information for the health sector is critical if the health sector is to achieve its goals.

Health information comes from various sources:

- The routine health management information system, which provides client generated data on health events, plus health management data relating to HR, infrastructure, commodities, and technology

- Health research systems, which generate targeted information on selected topical issues
- Surveillance systems, which collate disease specific trends and information
- Vital statistics systems, which provide critical information relating to births, deaths and cause of deaths in the country

There are currently a number of issues relating to the health information systems at present.

- There is a weak/poor interlinkages across different sources of health information, limiting their usefulness.
- Efforts in the recent past to reduce parallel information systems have helped, though some of these still persist. The sector still operates a fragmented data base information system with a number of stand- alone information systems within the sector, each supported by a vertical program

Disease surveillance has significantly improved, with better availability of surveillance and laboratory data. However, the system is not yet vigilant enough to monitor some communicable and non-communicable diseases and other emerging and re-emerging diseases/conditions

Health workforce

The country still faces acute challenges with regard to the health workforce.

- Production of the required health workforce is inadequate. The absence of norms, and projections are inappropriate, and the in country capacity to produce a number of required staff cadres (particularly specialised cadres) is poor. The medical specialists are currently accounting for only 17% of the total doctors. HRH norms have been produced, but are not yet being implemented.
- Distribution of the available health workforce is also poor, with most specialised health workers concentrated in a few, centralized facilities leaving gaps in availability of cadres at most peripheral facilities. To mitigate the current shortage, a number of donors are supporting a number of positions however the planning for the recruitment and absorption of these positions is poorly coordinated leading to real risks of failure to retain them.

- There are still weak management systems for the health workforce. Staff job descriptions are not aligned to their current tasks, and schemes of service are outdated particularly in the public sector. Performance monitoring is weak, and more punitive as opposed to supportive. Mechanisms to motivate the workforce are limited in roll out and scope.
- There are challenges with coordination and quality of in-service and pre-service training. There is duplication of in service training by partners, and the training is not always facilitative of professional development in line with defined career paths of health workers and the priorities of the sector. Similarly there are challenges in coordination of pre-service training particularly coordination between the MoH, MoET and MoL. Additionally the capacity and facilities in training hospitals have been found to be inadequate for pre-service training hence affecting the quality of practicum training.

As a result of these challenges, the country has an inadequate workforce, which is inappropriately motivated and suffers productivity and retention challenges.

Medical products

Health products, vaccine and technologies are key inputs in the provision of quality health services. The health sector seeks to assure that the right product is available in the right quantity, at the right place, to the right client, at a price that individuals and communities can afford. This thematic area includes selection, procurement, warehousing and distribution, and rational use of health products, vaccines and technologies.

The procurement of health products is guided by the Government of Swaziland's Public Procurement Regulations of 2012. These regulations provide guidance on how public sector procurements will be carried out. The health sector is currently in the process of developing and enacting the Medicines and Related Substances Control Bill, which will see the establishment of a Medicines Regulatory Authority to oversee health products management in the country. The Central Medical Store (CMS) is the national warehouse for health products, vaccines and technologies. This facility is currently undergoing restructuring towards greater efficiencies and optimization of the limited space available. Distribution of health products is

currently done from the national warehouse directly to facilities according to a predetermined scheduled. The MOH established the Procurement Unit to lead the procurement functions for all health goods and services. The unit works with the government Tender Board in the Ministry of Finance.

Leadership and governance

The Minister of Health is in charge of the Ministry, while the Principal Secretary for health is the accounting officer, technical lead or head of Ministry. Reporting to the Principal Secretary for Health is the Director of Health Services with two Deputy Directors of Health services (Clinical and Public Health). Below these is the undersecretary and then programme and unit managers. Figure 5 describes the organogram of the Ministry of Health with respect to NTD control.

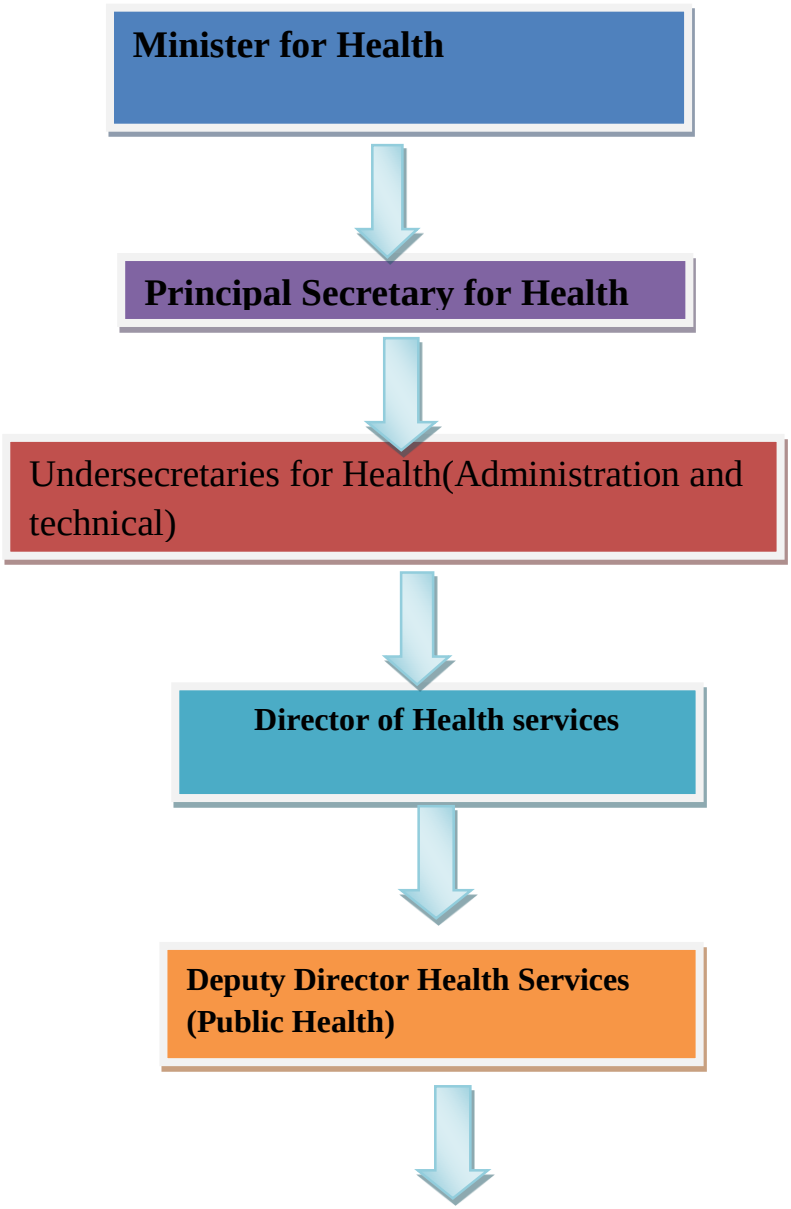

Figure 2.9.1

Figure 5: Organogram of the Ministry of Health with respect to NTD control

The control of NTDs is within the mandate of the NTDs Prevention and Control Programme in the Ministry of Health.

2.10 Intersectoral Collaboration

A number of key players must come together to support the Ministries of Health and Education and Training to successfully initiate and sustain the implementation of the NTDs control and elimination program. The other key players include but are not limited to the Ministries of Agriculture, Public Works and Transport, Information, Communications and Technology, Natural Resources and Energy Tinkhundla, Administration and Development and the Deputy Prime Minister's office. The local universities and particularly their Faculties of health sciences, science and agriculture are also involved in NTD control.

1.3. NEGLECTED TROPICAL DISEASE SITUATION ANALYSIS

1.3.1 Epidemiology and burden of disease

The National Bilharzia Control Programme was established after a national schistosomiasis survey in 1982. The prevalence of bilharzia and intestinal worms has been decreasing over the years as shown by the data from health facilities reports (Figure: 6). This might be attributed to the introduction of the routine mass preventive chemotherapy of the Albendazole to the under-five years, pregnant women and school aged children as from 2005 and Praziquantel to the school-aged children as from 2007. Some of the children however experienced some side-effects that required hospitalisation.

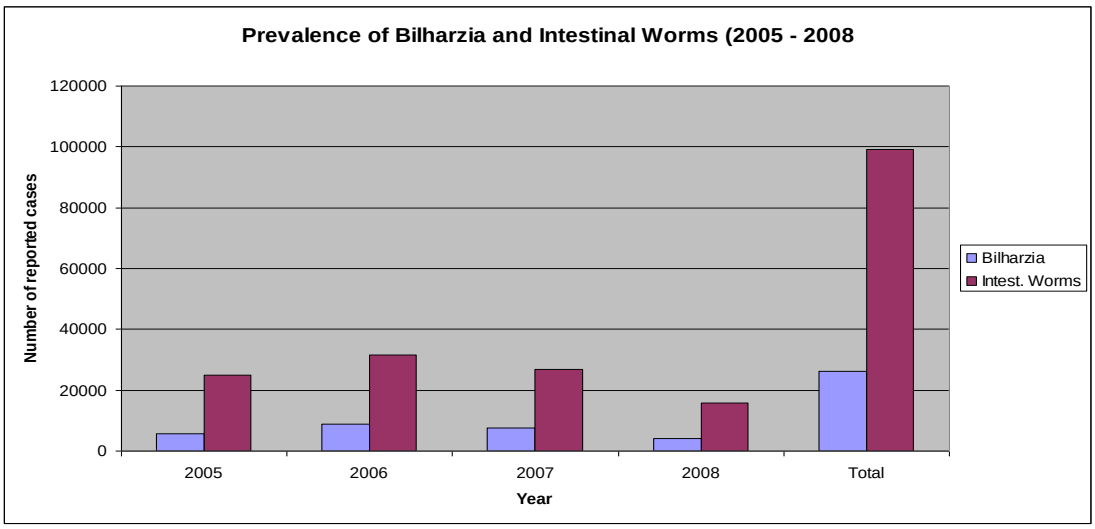

Figure 6: Prevalence of bilharzia and intestinal worms from 2005 to 2008

Source: Health Management Information System Unit

All the four regions are suspected to have the two of the PCT-NTDs- Schistosomiasis and Soil Transmitted Helminthiasis. The extent of trachoma, Lymphatic filariasis is unknown and yet to be examined through strengthened surveillance system. Swaziland is free of onchocerciasis. Schistosomiasis is suspected to be throughout the country due to extensive water bodies in all the regions. Generally, there is coendemicity of schistosomiasis and STH.

Based on the suspected cases visits from all over the country to the national laboratory at the Bilharzia control program as reflected in table 5, there is a high positivity rate suggesting that schistosomiasis is a problem all over the country.

Table 5: Prevalence of bilharzia seen at the national laboratory from 1999 to 2010

Year	Bilharzia Suspected cases attended	Positive Cases	Negative Cases	Bilharzia suspects Prevalence Rate for the population Screened
1999	2033	1644	389	81%
2000	1825	1418	408	78%
2001	2066	1363	705	66%
2002	1950	1531	419	79%
2003	1825	1116	709	61%
2004	2742	1658	1084	60%
2005	2616	1634	982	62%
2006	2354	1794	560	76%

2007	2042	1800	243	88%
2008	3400	2890	510	85%
2009	3470	2893	577	83%
2010	1674	1120	554	67%

Table 5 shows the number of people who visited the national Bilharzia laboratory for assessment since 1999 to 2010. The positive cases among the suspected cases range from 60% to 88%. These were screened using the WHO questionnaire. These highlited the need for population based mapping of Bilharzia in the country.

A number of surveys done in the country also suggest that schistosomiasis and STH are coendemic in the country. A population based survey was done between 1981 and 1984 during the Swaziland Rural Water Borne Disease Control Project supported by the USAID mission in Swaziland. The data were collected from 3,711 individuals. Urine samples were examined using the Petri dish method. The stool samples were examined at the Manzini Bilharzia Control Laboratory, where one gram of stool, as measured by liquid displacement, was transferred to a formaline-saline solution and observed under microscope. The prevalence studies showed that active transmission of Schistosomiasis did not occur in the Highveld and Schistosoma haematobium (urinary Bilharzia) was found throughout the Middleveld with a prevalence of 34.5%. Schistosoma haematobium was also found in the Lowveld with an overall prevalence of 27.2%, but there was a difference between the northern Lowveld (58%), central Lowveld (23%), and southern Lowveld (17%). The sex distribution of Schistosoma haematobium showed a consistently higher prevalence for males than females. The age distribution of Schistosoma haematobium showed that children were exposed at an early age (28% of the 4-5 years olds were found positive). The peak prevalence was found in the 14-15 year old group (41%). In the adults, the rate declined to 5% in the over-30 age group. Schistosoma mansoni was rarely found in the Middleveld, with an overall rate of 2.3%. The age distribution of Schistosoma mansoni showed very early exposure with the 2-3 year olds having 28% prevalence. The peak prevalence was found in the 18-19 year olds (47%). In the adults, the infection rates remain relatively high at 18%. The distribution of Schistosoma mansoni was generally confined to the Lowveld with

the northern Lowveld at 30.9%, the central Lowveld at 12.9%, and the southern Lowveld at 15.6 % (Chaine, JP, 1982)

Another parasitological survey of Schistosoma haematobium infection among 295 residents of Siphofaneni in the low veld, showed that Swaziland overall prevalence was 6.1% (mean age ± standard deviation: 20.5 ± 18.1 years). Subjects with positive infection were confirmed by the detection of S. haematobium ova in their urine using the centrifuge method (Chu et al 2010).

Another survey done in 2002 aimed to measure the magnitude of Helminth infection amongst 0-59months children in Lubombo and Shiselweni region showed a prevalence of 27% in Lubombo and 42% in Shiselweni. The samples were selected from 10 health facilities in Lubombo and 11 health facilities in Shiselweni. In the laboratory the stool specimen were examined through the concentration technique through the use of formalin - ether.

There is limited information on schistosomiasis and soil transmitted helminthiasis in Swaziland collected from different sources including the HMIS reports, local publications, and international publications. Table 6 shows prevalence of SCH and STH by Tinkhundla.

Table 6: STH and SCH prevalence by Tinkhundla

Inkundla	Prevalence Rates		Method used	Year of survey & Reference
	STH %	SCH %		
Dvokodvweni	6.00%	8.70%	School-based Population Mapping Survey	2015
Ekukhanyeni	3.10%	11.20%	School-based Population Mapping Survey	2015
Endzingeni	5.00%	7.60%	School-based Population Mapping Survey	2015
Gege	0.40%	12.60%	School-based Population Mapping Survey	2015

Hhukwini	24.60%	6.90%	School-based Population Mapping Survey	2015
Hlane	5.60%	17.70%	School-based Population Mapping Survey	2015
Hosea	0.00%	19.20%	School-based Population Mapping Survey	2015
Kubuta	0.40%	20.60%	School-based Population Mapping Survey	2015
Kwaluseni	3.00%	10.20%	School-based Population Mapping Survey	2015
Lamgabhi	2.30%	14.00%	School-based Population Mapping Survey	2015
Lobamba	8.00%	6.50%	School-based Population Mapping Survey	2015
Lobamba Lomdzala	11.10%	16.40%	School-based Population Mapping Survey	2015
Lomahasha	6.10%	30.90%	School-based Population Mapping Survey	2015
Lubuli	5.70%	7.40%	School-based Population Mapping Survey	2015
Ludzeludze	1.50%	11.90%	School-based Population Mapping Survey	2015
Lugongolweni	10.00%	25.00%	School-based Population Mapping Survey	2015
Madlangempisi	6.00%	6.00%	School-based Population Mapping Survey	2015
Mafutseni	3.10%	12.90%	School-based Population Mapping Survey	2015
Mahlangatja	4.90%	4.90%	School-based Population Mapping Survey	2015
Mangcongco	0.00%	17.90%	School-based Population Mapping Survey	2015
Manzini North	2.00%	13.30%	School-based Population Mapping Survey	2015
Manzini South	0.40%	18.70%	School-based Population Mapping Survey	2015
Maphalaleni	18.10%	10.10%	School-based Population Mapping Survey	2015
Maseyisini	0.40%	22.00%	School-based Population Mapping Survey	2015

Matsanjeni	3.80%	18.50%	School-based Population Mapping Survey	2015
Mayiwane	9.80%	20.40%	School-based Population Mapping Survey	2015
Mbabane East	10.50%	8.80%	School-based Population Mapping Survey	2015
Mbabane West	6.00%	8.50%	School-based Population Mapping Survey	2015
Mhlambanyatsi	0.90%	8.90%	School-based Population Mapping Survey	2015
Mhlangatane	9.70%	17.70%	School-based Population Mapping Survey	2015
Mhlume	1.90%	18.30%	School-based Population Mapping Survey	2015
Mkhiweni	4.70%	9.60%	School-based Population Mapping Survey	2015
Motshane	23.00%	4.90%	School-based Population Mapping Survey	2015
Mpolonjeni	6.20%	14.10%	School-based Population Mapping Survey	2015
Mtfongwaneni	1.20%	7.30%	School-based Population Mapping Survey	2015
Mtsambama	0.40%	26.30%	School-based Population Mapping Survey	2015
Ngudzeni	0.40%	23.80%	School-based Population Mapping Survey	2015
Ngwempisi	0.40%	14.60%	School-based Population Mapping Survey	2015
Nhlambeni	0.00%	18.00%	School-based Population Mapping Survey	2015
Nkhaba	6.40%	3.00%	School-based Population Mapping Survey	2015
Nkilongo	8.00%	12.20%	School-based Population Mapping Survey	2015
Nkwene	1.50%	17.20%	School-based Population Mapping Survey	2015
Ntfonjeni	2.60%	4.60%	School-based Population Mapping Survey	2015
Ntondozi	4.20%	9.40%	School-based Population Mapping Survey	2015

Pigg's Peak	18.80%	9.50%	School-based Population Mapping Survey	2015
Sandleni	0.80%	24.90%	School-based Population Mapping Survey	2015
Shiselweni 1	0.40%	29.40%	School-based Population Mapping Survey	2015
Shiselweni 2	7.40%	17.50%	School-based Population Mapping Survey	2015
Sigwe	2.00%	19.90%	School-based Population Mapping Survey	2015
Siphofaneni	3.00%	11.70%	School-based Population Mapping Survey	2015
Sithobela	7.40%	31.40%	School-based Population Mapping Survey	2015
Somntongo	1.10%	10.60%	School-based Population Mapping Survey	2015
Tikhuba	6.00%	30.10%	School-based Population Mapping Survey	2015
Timphisini	15.10%	23.10%	School-based Population Mapping Survey	2015
Zombodze	1.90%	23.60%	School-based Population Mapping Survey	2015

SCH and STH are coendemic in Swaziland in almost all Tinkhundla as shown in table 7.

Table 7: NTDs Coendemicity by Tinkhundla

Inkhundla	**Diseases**				
	STH	SCH	LF	Trachoma	Leprosy
Dvokodvweni	+	+	*	*	*
Ekukhanyeni	+	+	*	*	*
Endzingeni	+	+	*	*	*
Gege	+	+	*	*	*
Hhukwini	+	+	*	*	*
Hlane	+	+	*	*	*
Hosea	-	+	*	*	*
Kubuta	+	+	*	*	*

Kwaluseni	+	+	*	*	*
Lamgabhi	+	+	*	*	*
Lobamba	+	+	*	*	*
Lobamba Lomdzala	+	+	*	*	*
Lomahasha	+	+	*	*	*
Lubuli	+	+	*	*	*
Ludzeludze	+	+	*	*	*
Lugongolweni	+	+	*	*	*
Madlangempisi	+	+	*	*	*
Mafutseni	+	+	*	*	*
Mahlangatja	+	+	*	*	*
Mangcongco	-	+	*	*	*
Manzini North	+	+	*	*	*
Manzini South	+	+	*	*	*
Maphalaleni	+	+	*	*	*
Maseyisini	+	+	*	*	*
Matsanjeni	+	+	*	*	*
Mayiwane	+	+	*	*	*
Mbabane East	+	+	*	*	*
Mbabane West	+	+	*	*	*
Mhlambanyatsi	+	+	*	*	*
Mhlangatane	+	+	*	*	*
Mhlume	+	+	*	*	*
Mkhiweni	+	+	*	*	*
Motshane	+	+	*	*	*
Mpolonjeni	+	+	*	*	*
Mtfongwaneni	+	+	*	*	*
Mtsambama	+	+	*	*	*
Ngudzeni	+	+	*	*	*
Ngwempisi	+	+	*	*	*

Nhlambeni	-	+	*	*	*
Nkhaba	+	+	*	*	*
Nkilongo	+	+	*	*	*
Nkwene	+	+	*	*	*
Ntfonjeni	+	+	*	*	*
Ntondozi	+	+	*	*	*
Pigg's Peak	+	+	*	*	*
Sandleni	+	+	*	*	*
Shiselweni 1	+	+	*	*	*
Shiselweni 2	+	+	*	*	*
Sigwe	+	+	*	*	*
Siphofaneni	+	+	*	*	*
Sithobela	+	+	*	*	*
Somntongo	+	+	*	*	*
Tikhuba	+	+	*	*	*
Timphisini	+	+	*	*	*
Zombodze	+	+	*	*	*

***=** diseases not mapped but will be investigated

Table 8 shows number of mapped Tinkhundla suspected to be coendemic to NTDs.

Table 8: NTDs mapping status

Name of endemic NTD	**No of Tinkhundla suspected to be endemic**	**No of Tinkhundla mapped or known endemicity status**	**No of Tinkhundla remaining to be mapped.**
Schistosomiasis	55	55	0
STH	55	55	0
LF	55	0	55
Trachoma	55	0	55
Leprosy	55	0	55

3.2. NTD PROGRAMME IMPLEMENTATION

Table 9 shows the NTDs programs that are existing in Swaziland for the purpose of control.

Table 9: Summary of intervention information on existing PCT programmes

NTD	Date programme started	Total No. of Tinkhundla targeted	No. of Tinkhundla covered *(Geographic coverage)	Total population in target Tinkhundla	No. of (percentage) Population covered	Key strategies used	Key partners
STH for <5 years	2005	55	55	132398	132398	Routine child welfare	EPI, WHO
STH for pregnant women	2005	55	55	30553	30553	Routine ANC	EPI, WHO

*Geographical Coverage = No. of districts covered by the programme / Total No. of endemic districts in the country

Table 10: Summary of intervention information on existing CN programmes

NTD	Date programme started	Total No. of districts targeted	No. of districts covered *(Geographic coverage)	No. of (percentage) Population covered	Key strategies used	Key partners
Leprosy		55	55	100%	Active case finding and health facility treatment	

1.3.3 GAPS AND PRIORITIES

Table 11: SWOT counteracting table

Weakness	Strengths	Opportunities counteracting weakness
1.Mapping for all NTDs not completed hence data for management and planning of NTDs is inadequate 2.Inadequate defined structure of NTD management at regional level 3.Inadequate staffing in the NTD Programmes at National, Provincial, and District levels	1.An established National NTDs control Programme at national level 2.Political will towards prevention and management of NTDs 3.Establishment of NTD TWG 4.Incooperation of NTDs into NHSSP 5.NTD budget line in the MoH	
Threats	Opportunities	Opportunities counteracting threats
1.Poor data management 2.Inadequate resources for implementation 3.Low awareness levels among stakeholders and communities	1.Health centers in close proximity with schools in the catchment areas 2.IDSR strengthened 3.International meetings and conferences for sharing of practical experiences 4.Increased drugs donated for treatment of NTDs 5.Increased Technology towards prevention, control and management of NTD	

PART TWO: NTD STRATEGIC AGENDA

Swaziland NTD Master plan primarily embodies the goal of AFRO NTD Strategic Plan which intends to establish, by 2015, sustainable integrated national NTD control programmes capable of achieving the set goals of individual disease specific programmes, thereby leading to the elimination of NTDs as a public health problem in endemic countries in the African region

2.1. OVERALL NTD PROGRAMME MISSION AND GOALS,

Vision: A healthy and productive Swazi population free of NTDs and their complications

Mission

To provide the most effective tools and services for NTDs prevention and control in an efficient and equitable client-centred manner for accelerated attainment of highest standard of health to all people in Swaziland.

Goals

To 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 the affected people in Swaziland.

2.2. STRATEGIC PRIORITIES AND GUIDING PRINCIPLES

2.2.2 Strategic priorities and objectives

1. Strategic Priority 1: Strengthen government ownership, advocacy, coordination and partnerships
2. Strategic Priority 2: Enhance planning for results, resource mobilization and financial sustainability of the NTD programme
3. Strategic Priority 3: Scale-up access to interventions, treatment and system capacity building
4. Strategic Priority 4: Enhance NTD monitoring and evaluation, surveillance and operations research

Table 12: Strategic framework summary

Strategic priorities	Strategic objectives
Strengthen government ownership, advocacy, coordination and partnerships	Strengthen coordination mechanisms for the NTDs control programme at all levels in Swaziland
	Strengthen and foster partnerships for the control, elimination and eradication of targeted NTDs at all levels
	Enhance regular reviews of NTD programme performance and the use of lessons learnt to enhance advocacy, awareness and effective implementation of targeted interventions
	Strengthen advocacy visibility and profile of NTDs for the control, elimination, and eradication interventions at all levels.
Enhance planning for results, resource mobilization and financial sustainability of the NTD programme	Develop a comprehensive and integrated multi-sectoral multiyear strategic plan for the control, elimination and eradication of the targeted NTDs
	Enhance resource mobilization approaches and strategies at all levels for NTD interventions
	Strengthen the integration and linkages of NTD programme and financial plans into sector –wide and national budgetary and financing mechanisms
	Develop a national NTD policy and elaborate guidelines, job aides and tools to guide effective policy and programme implementation
Scale-up access to interventions, treatment and system capacity building	Scale up an integrated preventive chemotherapy program.
	Scale up integrated case-management-based diseases interventions
	Strengthen capacity at all levels for NTD programme management
	Establish integrated vector management for targeted NTDs
Enhance NTD monitoring and evaluation, surveillance and operations research	Enhance monitoring of the national NTDs programme performance and outcome
	Strengthen the surveillance of NTDs and strengthen the response and control of epidemic prone NTDs
	Support operational research, documentation and evidence to guide innovative approaches to NTD programme interventions
	Establish integrated data management systems and support impact analysis for NTDs in the provinces as part of the national and global NTDs data management system and Global NTDs Plan

PART 3: OPERATIONAL FRAMEWORK

The operational framework component of the NTDs Master Plan describes how Swaziland will operate in practice to implement the planned activities. The plan also explains what Swaziland capacity needs are, how resources will be mobilized, how to deal with potential risks, and how the sustainability of the project achievements will be ensured. This part also clearly explains how the program outcomes will be attained. The activities are developed in consultation with stakeholders to allow wider coverage of activities, avoid depletion of resources and to yield desired results even within the existing constrained resources for NTDs control.

3.1 NATIONAL NTD PROGRAMME OBJECTIVES, STRATEGIES, TARGETS AND INDICATORS

Table 13 outlines goals, objectives, strategies and delivery channels of the NTDs programme.

Table 13: Summary of NTD Disease Specific goals and objectives

NTD PROGRAMME	Programme and Global goals	OBJECTIVES	STRATEGIES	Delivery Channel
Schistosomiasis	Elimination of schistosomiasis by 2025	To achieve 100% coverage of integrated MDA in endemic Tinkhundla To interrupt transmission via vector control To improve water and sanitation	Preventive chemotherapy Integrated Vector Management Scale up WASH activities	School based Community
STH	Deworming coverage of 75% of preschool and school-aged children at risk of STH by 2020	To achieve 100% coverage of integrated MDA in endemic Tinkhundla To interrupt transmission via vector control. To improve water and sanitation	Preventive chemotherapy Integrated Vector Management Scale up WASH activities	School-based Community-based
LF	Elimination of LF by 2020	To reduce the prevalence of elephantiasis by 100% in affected communities	Preventive chemotherapy and disability management	Community-based
Trachoma	Elimination of blinding trachoma by 2020	To Intensify case-base surveillance	Surgery Antibiotics Facial cleanliness Environmental improvements	Health facility Community
Leprosy	Global elimination of leprosy by 2020	To reduce the morbidity of Leprosy by 100% in affected communities	Case management	Health facility

NTD PROGRAMME	Programme and Global goals	OBJECTIVES	STRATEGIES	Delivery Channel
Rabies	Elimination of human rabies by 2020	To reduce the mortality of Rabies by 90% in affected communities	Case management	Community-based

3.2. STRENGTHENING GOVERNMENT OWNERSHIP, ADVOCACY COORDINATION AND PARTNERSHIPS

This section describes how NTDs control will be effectively streamlined at the sector level to establish a five year term multi-sectoral involvement at various operating levels, as well as being responsive to the National Development Goals. The existing interaction between Government, Development Partners, academia and NGOs is the foundation for describing how streamlining of activities will be effected in order to lead to sustainability of the NTDs program.

Priority 1: Strengthen government ownership, advocacy, coordination and partnership

Table 14: Activities for implementing strategic priority

Activity	**Details(Sub-activities)**	**Timeframe/frequency 2016 – 2020**	**Resources needed**
Strategic objective 1: Strengthening coordination mechanisms for the NTDs control programme at all levels in Swaziland			
Strengthening of NTDs taskforces, steering committee and focal persons for NTDs at National, Regional and Tinkhundla levels	Identify suitable taskforce and steering committee members	2016	Personnel, Logistics Funds, Stationery
	Convene meetings with taskforces and steering committee members	2016 to 2020, regularly	Personnel, Logistics Funds, Stationery, refreshments
	Develop terms of reference for taskforces and steering committee	2016	Stationery
	Provide equipment and operational support for the NTDs program	2016 to 2020	Equipment, Personnel, Logistics, Funds, Stationery
	Hold quarterly meetings with taskforces (4 sittings)	2016 to 2020	Personnel, Logistics Funds, Stationery, refreshments
	Hold Steering committee meetings once every other month/year (6 sittings)	2016 to 2020	Personnel, Logistics Funds, Stationery, refreshments
	Appoint regional NTDs focal persons	2016	Stationery
Hold consensus meetings for stakeholders	Convene consensus meeting with stakeholders	2016 to 2020	Funds -refreshments -Stationery -Accommodation Fuel
Establish coordination mechanisms at regional level	Hold regional stakeholders' meetings (quarterly)	2016 to 2020	-Human resources -Fuel -Stationery and

			printing -Hotel accommodation
Strategic objective 2: Strengthen and foster partnerships for the control, elimination and eradication of targeted NTDs at all levels			
Hold donors and partners meeting on NTDs	Conduct donors and partners mapping for those within and outside the country	2016	Stationery, Communications
	Convene a donor's meeting on NTDs	2016 to 2020	Teas
	Disseminate reports to partners and stakeholders	2016 to 2020	Stationery, Communications
Hold Community Leaders & NGOs forum	Mobilize community leadership & Community Based Organizations	2016 to 2020	Personnel, Logistics Funds, Stationery
Strategic objective 3: Enhance regular reviews of NTDs programme performance and the use of lessons learnt to enhance advocacy, awareness and effective implementation of targeted interventions***.***			
Conduct high level reviews of NTDs programme at all levels	Hold national reviews	2016 to 2020	Personnel, Logistics Funds, Stationery, fuel
	Hold regional reviews	Bi-annually	Personnel, Logistics Funds, Stationery, fuel
	Hold Tinkhundla reviews	Bi-annually	Personnel, Logistics, funds, fuel Funds, Stationery
	Prepare consolidated reports after each review		
Strategic objective 4: Strengthen advocacy visibility and profile of NTDs for the control, elimination, and eradication interventions at all levels in Swaziland			
Strengthen linkages with line Ministries and other sectors to increase profile of NTDs control	Formalize relationship with MOET by MOU.	2016	Transport & Stationery
	Engage other government sectors and other relevant entities to improve water and sanitation.	2016 to 2020	Transport & Stationery
	Identify and engage NTDs ambassadors from all relevant government and non-government organizations and departments	2016 to 2020	Personnel, Logistics Funds, Stationery
Conduct advocacy and visibility events for NTDs interventions	Develop communication strategy for NTDs	2016	Personnel, Logistics Funds, Stationery
	Develop advocacy/social mobilization and communication materials	2016 to 2020	Personnel, Logistics Funds, Stationery
	Disseminate IEC and advocacy materials	2016 to 2020	Personnel, Logistics Funds, Stationery
	Engage the various media (Print, radio, television etc.)	2016 to 2020	Personnel, Logistics Funds, Stationery

3.3. ENHANCE PLANNING FOR RESULTS, RESOURCE MOBILIZATION, AND FINANCIAL SUSTAINABILITY

This section describes how effective systems that will continuously observe the prevailing trends in health priorities and financing, and donor strategies, will be established. This will lead to identification of better strategies for NTDs resources mobilization, partnership and financial sustainability. The objectives primarily aim at generating adequate resources as well as establish an enabling environment that would suit resource mobilization for the multi-year comprehensive NTD plan as shown in table 15.

Table 15: Strategic Priority 2: Enhance planning for results, resource mobilization and financial sustainability of national NTDs programs.

Activity	Details(Sub-activities)	Timeframe/Frequency	Resources needed

Strategic Objective 1: Develop a comprehensive and integrated multi-sectoral multi-year strategic plan for the control, elimination and eradication of the targeted NTDs***.***			
Develop NTD Strategic and annual plans	Develop & review national NTDs strategic and annual plan • Develop the master plan • Mid-term review • Develop annual plans	2016 to 2020 2016 2018 2016 to 2020	Personnel, Transport & Stationery refreshments
	Integrate NTD plans into existing service delivery plans	Year 1 to Year 5	Transport & Stationery refreshments
Develop guidelines for implementation			
	Develop/ Revise, and disseminate guidelines for all the NTDs Develop SoPs for school based deworming Develop SoPs for community based deworming	2016 2016 2016	Personnel, Logistics Funds, Stationery, refreshments
Support Regions and Tinkhundla in developing annual plans	Prepare guidelines for Regions and Tinkhundla for developing annual plans	2016	Personnel, Logistics Funds, Stationery, refreshments
	Conduct micro-planning sessions at Regional and Tinkhundla levels	2016 to 2020	Personnel, Logistics Funds, Stationery, refreshments, Conference package
Strategic Objective 2: Enhance resource mobilization approaches and strategies at national, regional and Tinkhundla levels for NTD interventions***.***			
Resource mobilization for NTDs	Present national strategic plan to government	2016	refreshments Stationery
	Apply for budgetary allocation from the Government	2016 to 2020	Logistics, Stationery
	Presentation of annual plan to Parliamentary Portfolio Committees	2016 to 2020	Personnel, Logistics Funds, Stationery
	Presentation of annual plan to partners, donors and funding agencies	2016 to 2020	Personnel, Logistics Funds, Stationery
	Organize fund-raising functions/luncheons with partners/funders	2016 to 2020	Personnel, Logistics Funds, Stationery
Advocate for resource mobilisation with Tinkhundla Councils and stakeholders as well as external partners	Plan national launch activity in a region with highest prevalence of schistosomiasis. Include high government officials to demonstrate MDA	2016	Personnel, Logistics Funds, refreshments, Stationery
	Assist region in planning the launch activities	2016	Personnel, Logistics Funds, refreshments, Stationery
Strategic Objective 3: Strengthen the integration and linkages of NTD programme and financial plans into sector –wide and national budgetary and financing mechanisms***.***			
Share the NTD multi-year plan (master plan) with Ministers of Health, Finance, Planning, Education, Natural Resources, Housing, Parliamentarians , regional administrators and Tinkhundla administration and governing bodies	Hold sensitization meetings with key and line Ministries for the success of the NTDs programme with budgetary support	2016 to 2020	Personnel, Logistics Funds, Stationery
	Give feedback to line ministries including municipal councils on progress of implementation plan and have their buy in.	2016 to 2020	Personnel, Logistics Funds, Stationery
	Follow up with key Ministries	2016 to 2020	Personnel, Logistics Funds, Stationery
	Disseminate the NTDs multi-year plan at national, regional and Tinkhundla levels	2016 to 2020	Personnel, Logistics Funds, Stationery, Refreshments

3.4. SCALING UP ACCESS TO NTD INTERVENTIONS TREATMENT AND SERVICE DELIVERY CAPACITIES

Priority implementation units/communities for control activities for each NTD programme and summarize in table 16.

Table 16: Tinkhundla requiring interventions or mapping for each targeted NTD

NTD	Total No of Tinkhundla above threshold for intervention	Total number of Tinkhundla where mapping results are required
Schistosomiasis	55	0
STH	23	0
LF	-	-
Trachoma	-	-
Rabies	-	-
Leprosy	-	-

3.4.1 SCALING UP PREVENTIVE CHEMOTHERAPY INTERVENTIONS

Preventive chemotherapy is a package of activities that includes mass distribution of drugs to target populations as shown in tables 17 and 18.

Table 17: Types of Mass drug administration

CROSS CUTTING MDA TYPES	**Delivery channels**	**Timing of treatments**	**Disease Combination**	**Requirements**	**Target Tinkhundla list**	**Other mass disease control interventions**
MDA 1 -TS-5=21 Tinkhundla PZQ-biennially ALB- annually	School Based Community	Month 5-MDA 1	SCH STH	-Training of Health Personnel -Training of teachers & community volunteers. -Social Mobilization. -Supervision. -Production of	Dvokodvweni Endzingeni Hhukwini Hlane Lobamba Lobamba Lomdzala Lubuli Lugongolweni Madlangampisi	EPI-measles campaigns

				tools -Logistics for drug distribution and management	Maphalaleni Mayiwane Mbabane East Mbabane west Mhlangatane Mpolonjeni Nkilongo Shiselweni Sithobela Timphisini	
TS 6=29 Tinkhundla PZQ- biennial	School based community	MDA 1 Month 5	STH SCH	-Training of Health Personnel -Training of teachers & community volunteers. -Social Mobilization. -Supervision. -Production of tools -Logistics for drug distribution and management	Zombodze Somntongo Siphofaneni Sigwe Shiselweni 1 Sandleni Ntondozi Nkwene Nhlambeni Ngwempisi Ngudzeni Mtsambama Mkhiweni Mhlume Mhlambanyatsi Matsanjeni Maseyisini Manzini north Manzini south Mangcongco Mafutseni Ludzeludze Lomahasha Lamgabhi Kwaluseni Kubutha Hosea Gege Ekukhanyeni	EPI-measles campaigns
TS-8=2 Tinkhundla PZQ= twice in primary school calender ALB=annually	School based community	MDA 1 MONTH 5	SCH STH	-Training of Health Personnel -Training of teachers & community volunteers. -Social Mobilization. -Supervision. -Production of	Nkhaba Motjane	EPI-measles campaigns

				tools -Logistics for drug distribution and management		
TS 9 = 3 Tinkhundla PZQ=twice in primary school calender	School based community	MDA	SCH	-Training of Health Personnel -Training of teachers & community volunteers. -Social Mobilization. -Supervision. -Production of tools -Logistics for drug distribution and management	Mahlangatja Mtfongwaneni Ntfonjeni	EPI-measles campaigns

Table 18: Activities for PCT interventions

Activity	Details(Sub-activities)	Timeframe/Frequency	Resources needed
Strategic Objective 1: Scale up an integrated preventive chemotherapy program,			
Procure & Distribute MDA medicines	Procurement of MDA medicines and commodities	2016 to 2020	Completion of WHO joint reporting form for medicines donations
	Distribution of MDA medicines through existing channels	2016 to 2020	Personnel, Logistics transport Funds, Stationery
	Development of IEC materials	2016 to 2020	Personnel, Logistics Funds, Stationery
Capacity Building for PCT Interventions	Development of training manuals	2016	Personnel, Logistics Funds, Stationery
	Training of identified key personnel (national officers) nurse managers (clinic supervisors, matrons, hospital, public health and health centres	2016	Personnel, Logistics Funds, Stationery, conference package
	Conduct training of	2016	Personnel, Logistics

	trainers (regional l and officers) environmental health officers, school health nurses and public health nurses		Funds, Stationery, conference package
	Conduct training of school health teams	2016	Personnel, Logistics Funds, Stationery, conference package
	Training of community RHMs	2016	Personnel, Logistics Funds, Stationery, conference package
Conduct MDA campaigns	Conduct community mobilization	2016 to 2020	Personnel, Logistics Funds, Stationery
	Distribution of PCT drugs	2016 to 2020	Personnel, Logistics Funds, Stationery

3.4.2 SCALING UP CASE MANAGEMENT NTD INTERVENTIONS:

Clinical interventions also play a crucial role in NTDs control. Tables 19 and 20 shows case management interventions for some NTDs.

Table 19: Case management and chronic care

CROSS-CUTTING INTERVENTIONS	NTDS TARGETED	REQUIREMENTS	OTHER NON-NTD OPPORTUNITIES FOR INTEGRATION
SURGERY Hydrocele surgery (hydrocelectomies) Trichiasis surgery Skin grafting	Lymphatic Filariasis hydrocele, Trachoma, trichiasis	-Training of Medical Doctors and nurses - Surgery kits, dermatome and mesh graft (for skin grafting) -hospitals facilities or appropriate basic facilities with good surgical facilities -Follow up/supervision	Capacity building for basic surgery at the Tinkhundla level

Table 20: Activities for case management and interventions

Activity	**Details(Sub-activities)**	**Timeframe/ Frequency**	**Resources needed**
Strategic Objective 2: Scale up integrated case-management- interventions, for leprosy, and other zoonotic diseases			
Conduct mapping for	Conduct baseline survey for rabies	2017 to 2018	Personnel, Logistics Funds, Stationery

case management diseases	Intensify active case finding for Leprosy	2017 to 2018	Personnel, Logistics Funds, Stationery
	Conduct baseline for other zoonotic diseases	2017 to 2018	Personnel, Logistics Funds, Stationery
Build capacity for integrated case management	Development of case management and training manuals	2017	Personnel, Logistics Funds, Stationery
	Training of health staff for improved case detection and management	2017 to 2020	Personnel, Logistics, Funds, Stationery
	Incorporate NTD disease management in nursing school curriculum in pre-service	2018	Personnel, Logistics Funds, Stationery
	Community sensitization on prevention and control of NTDs.	2017 to 2020	Personnel, Logistics Funds, Stationery, IEC materials, refreshments.

3.4.3 SCALING UP NTD TRANSMISSION CONTROL INTERVENTIONS:

Transmission control is for NTDs that require vector management, eg., snail control activities for schistosomiasis control as shown in tables 21 and 22.

Table 21: Intervention packages for Transmission control

CROSS-CUTTING INTERVENTIONS	TARGETED NTDS	REQUIREMENTS	OTHER NON-NTD OPPORTUNITIES FOR INTEGRATION
Mosquito and snail control using: - insecticide treated nets -In-door residual spraying -Environmental management -River scooping	Lymphatic Filariasis Malaria Schistosomiasis	- ITNs - DDT - Plastering of walls - Molluscide	Malaria and bilharzia vector control

Table 22: Activities for transmission control

Activity	**Details(Sub-**	**Timeframe/Frequency**	**Resources needed**

	activity)		
Strategic Objective 3: Establish integrated vector management for targeted NTDs***.***			
Improve access to safe water and sanitation for communities	Advocate for increased access to safe water ,basic sanitation and hygiene	2016 to 2020	Personnel, Logistics Funds, Stationery
	Strengthen inter-sectoral collaboration for water supply and sanitation	2016 to 2020	Personnel, Logistics Funds, Stationery
Vector control	Finalise Guidelines for IVM	2016	Personnel, Logistics Funds, Stationery
	Capacity Building for integrated vector control including community members to adapt IVM measures	2017 to 2020	Personnel, Logistics Funds, Stationery
Carry out environmental measures for targeted NTD (Schistosomiasis)	Development of training materials	2016	Personnel, Logistics Funds, Stationery
	Training of EHTs	2016 to 2020	Personnel, Logistics Funds, Stationery
	Procurement of selected pesticides	2016 to 2020	Personnel, Logistics Funds, Stationery
Community campaigns on IVM	Community training on integrated vector management	2016 to 2020	Personnel, Logistics Funds, Stationery
	Mobilize and support communities to carry out IVM measures	2016 to 2020	Personnel, Logistics Funds, Stationery

3.5. STRENGTHEN CAPACITY AT NATIONAL LEVEL FOR NTD PROGRAMME MANAGEMENT AND IMPLEMENTATION

This section gives description of what is needed to strengthen the management and operational capacities of the NTD programme staff at different levels as shown table 23.

Table 23: Activities and resources needed for strengthening capacity for NTD programme

Activity	Details(Sub-activities)	Timeframe/Frequency	Resources needed
Strategic Objective 4: Strengthen capacity at national, provincial and district levels for NTD programme management and implementation and accelerate implementation of disease burden assessments and integrated mapping of NTDs			
Capacity building	Development of standardized training materials	2016	Transport & Stationery
	Support country exchange visits	2016 to 2020	Personnel, Logistics Funds, Stationery
	Conduct Management training for national NTD managers	2017 to 2020	Personnel, Logistics Funds, Stationery
	Training health workers at various levels and school teachers on MDA	2016 to 2020	Funds, logistics
	Training of programme managers on Monitoring and Evaluation of the NTDs programme	2017 to 2020	Funds, logistic
	Provision of a national NTDs office and equipment	2016 to 2020	Funds, logistics
	Provision of a vehicle	2016	Funds, logistics
	Training of TOTs	2016 to 2017	Funding, stationery, human resources
	Incorporation of NTDs in national HMIS routine reporting system	2017 to 2018	Human resources
	Appointment of NTDs focal persons at provincial and district levels	2017 to 2018	Human resources
	Training of various levels of health workers on diagnosis, management and rehabilitation of NTDs cases	2016 to 2020	Funding, stationery, human resources

	Engagement of high level Government officials for support on NTDs control	2016 to 2020	Human resource , stationery

Table 24: Phasing in targeted Tinkhundla in scaling up an NTD programme

Activity	Total Tinkhundla targeted by end of master plan	Geographical coverage				
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**

3.6. MONITORING AND EVALUATION

Monitoring and evaluation, surveillance and operational research is crucial in the control of NTDs as highlighted in table 25.

Table 25: Activities for enhancing NTDs monitoring and evaluation, surveillance and operations research

Activity	**Details(Sub-activities)**	**Indicator**	**Timeframe/Frequency**	**Resources needed**
Strategic Objective 1: Enhance monitoring of the national NTDs programme performance and outcome*.*				
Conduct baseline assessment	Assess already available M&E systems and resources	M&E systems and resources identified	2016 to 2017	Personnel, Logistics Funds, Stationery
	Plan the integration of NTDs M&E	Documented Integrated NTDs M&E plan	2016 to 2017	Stationery, Funds
	Integrate NTDs in surveillance system and HMIS	Documented NTDs surveillance system and HMIS	2016 to 2017	Transport & Stationery
Build capacity at all levels on M&E on NTDs	Develop/Review M&E guidelines & Tools which assist in data collection	Documented NTDs M&E guidelines and data collection tools	2016, 2018, 2020	Personnel, Logistics Funds, Stationery
	Develop/Review M&E training manuals	Documented NTDs M&E training	2016, 2018, 2020	Personnel, Logistics Funds,

		manual		Stationery
	Train responsible health personnel M&E	-Number of trained health personnel on M&E -Number of trainings conducted	2016, 2018, 2020	Personnel, Logistics Funds, Stationery
	Establish and conduct sentinel surveillance in sites for NTDs	Number of sentinel surveillance sites established -Number of sentinel surveillance surveys conducted	2016 to 2020	Personnel, Logistics Funds, Stationery
Monitoring & Evaluation	Conduct regular evaluation of NTDs programme	Documented evaluation report	2018 to 2020	Personnel, Logistics Funds, Stationery
	Conduct post-MDA surveys for PCTs	Number of post-MDA surveys conducted	2016 to 2020	Personnel, Logistics Funds, Stationery
	Conduct routine monitoring for PCTs	Number of people treated	2016 to 2020	Personnel, Logistics Funds, Stationery
	Conduct routine monitoring for case management diseases	Number of case management disease treated	2016 to 2020	Personnel, Logistics Funds, Stationery
Strategic Objective 2: Strengthen the surveillance of NTDs and strengthen the response and control of epidemic prone NTDs				
Integrate the NTDs M&E indicators into the national integrated disease surveillance system (IDSR)	Incorporate NTDs indicators into existing reporting forms (including pre-testing the form)	Reporting forms with integrated NTDs indicators	2016 to 2017	Personnel, Logistics Funds, Stationery
	Training of responsible health personnel in	Number of trained health	2017	Personnel, Logistics Funds,

	identifying and reporting appropriate indicators (combined with M&E training)	personnel -Reporting on NTDs indicators		Stationery
	Conduct drug monitoring studies for STH and schistosomiasis	Number of drug monitoring studies conducted	2016 to 2020	Personnel, Logistics Funds, Stationery
	Conduct national surveys on impact and KAP of treatment for schistosomiasis and STHs - every 3 years	Documented national survey report	2018 to 2020	Personnel, Logistics Funds, Stationery
	Assess environmental (vectors) and human behaviour risk factors	Documented risk factors	2018 to 2020	Personnel, Logistics Funds, Stationery
Strategic Objective 3: Support operational research, documentation and evidence to guide innovative approaches to NTDs programme interventions***.***				
Document and disseminate good practices and innovative approaches derived from operation research	Conduct operational research on NTDs	Operational Research on NTDs conducted	2016 to 2020	Personnel, Logistics Funds, Stationery
	Publish findings of operation research in national and international scientific bulletins	Documented report on Operational Research findings	2016 to 2020	Funds & Stationery
Activities to liaise with MCAZ to establish a system for NTDs PV system	Develop PV protocol, reporting tools and database with MCAZ	Documented PV protocol, tools and database	2017	Personnel, Logistics Funds, Stationery
Strategic Objective 4: Establish integrated data management systems and support impact analysis for NTDs in the provinces as part of the national and global NTDs data				

management system and Global NTDs Plan				
Report and provide required information and data on NTDs to the NTDs program at the Ministry of Health HQ	Develop/Review data-reporting structures e.g. database	-Functional data management system	2016 to 2020	Personnel, Logistics Funds, Stationery
	Produce reporting tools	Reporting tools produced	2016	Logistics Funds, Stationery
	Build capacity at all levels for data management	Number of trained health personnel on data management	2017 to 2018	Personnel, Logistics Funds, Stationery
	Coordinating data collection and compilation	Coordination plan for data collection and compilation	2016 to 2020	Personnel, Logistics Funds, Stationery
	Quarterly support and supervision of data-reporting activities (ensuring quality control of data collection and compilation)	Number of support and supervision visits conducted	2016 to 2020	Personnel, Logistics Funds, Stationery

3.7. PHARMACOVIGILANCE IN NTD CONTROL ACTIVITIES

Successful identification, management and investigation of adverse events (AEs) and serious adverse events (SAEs) in preventive chemotherapy programs require the active involvement of several stakeholders and linkages with national pharmacovigilance systems.

Table 26: Activities for strengthening pharmaco-vigilance in NTDs programmes.

Activity	Details(Sub-activity)	Indicator	Timeframe/Frequency	Resources needed
Strategic objective:				
	Link NTDs with existing pharmacovigilance systems	Functional link for NTDs and pharmacovigilance created	2016	
	Develop/Review standard case definition for	Documented case definition AEs and SAEs for MDAs	2016	

	AE-f-MDA and standard investigation procedures	and investigation procedures		
	Form medical teams at strategic places and inform the community and drug administrators about the availability of such teams	Register (Number) of medical teams formed	2016 to 2020	
	Create a pool of experts who can guide the program in managing and investigating SAEs	Register of experts created	2016 to 2020	
	Ensure health facilities are prepared to receive and manage individuals with AEs and SAEs.	Health facilities treat and manage AEs and SAEs. -Number of individuals treated for AEs and SAEs	2016 to 2020	
	Conduct spot check visits to investigate AEs and SAEs in reported locations	Number of spot check visits conducted to locations with reported AEs and SAEs.	2016 to 2020	
Build capacity for school and clinic personnel in the pharmaco-vigilance program (integrate with PCT training)	Train school personnel on Adverse and serious adverse events for MDAs	Register (Number) of trained school personnel on adverse and serious adverse events	2016 to 2020	Personnel, Logistics Funds, Stationery
	Train health personnel at all levels on pharmaco-vigilance	Register (Number) of trained health personnel on adverse and serious adverse events for MDAs	2016 to 2020	Personnel, Logistics Funds, Stationery
Raise community awareness about adverse	Mobilize communities for reporting adverse events	Number of mobilization meetings held -Number of	2016 to 2020	Personnel, Logistics Funds, Stationery

events following treatment (broadcasted during the NTDs launch event)		individuals reported to have AEs and SAEs.		
	Have a media packet on the AEs and SAEs in question	Guiding document for media	2016 to 2020	
Prepare a plan to react to a crisis	Create a crisis working group in which representatives of the population participate	Functional Crisis working group	2016 to 2020	
	Designate the person who will be responsible to communicate with journalists	NTDs public relations officer appointed	2016 to 2020	

Table 27: Post intervention surveillance and integration within primary health care

Activity	Details(Sub-activity)	Timeframe/Frequency	Resources needed
Strategic objective:			

Annexure

Annex 1: Packages of NTD interventions

Package 1: Mass drug administration

Activity		**LF**	**SCH**	**STH**	**Trachoma**
Programme coordination		X	X	X	X
Advocacy		X	X	X	X
Resource mobilization		X	X	X	X
Social mobilization		X	X	X	X
Training		X	X	X	X
Mapping		X	X	X	X
Drug distribution	Community Medicine Distribution	X	X	X	X
	School		X	X	
	MDA campaign	X	X	X	X
	Child Health Day			X	X
	Immunization campaign		X	X	X
	Health &Nutrition Day	X	X		
HSAM		X	X	X	X
M&E		X	X	X	X

Package 2: Case Management and chronic care

Key interventions	Diseases					
	LEPROSY	Complications LF	TRICHIASIS	RABIES	ECCH	CYST
Advocacy /Resource Mobilization	x	x	x	x	x	X
Strengthening Partnership	x	x	x	x	x	X
Intersectoral collaboration	x	x	x	x	x	X
Health Promotion	x	x	x	x	x	X
Capacity building	x	x	x	x	x	X
Mapping	x	x	x	x	x	X
Passive case finding	x	x	x	x	x	X
Active case finding		x				
Medical Treatment	x	x	x			
Surgery	x	x	x			
Prevention of disability	x	x				
Integrated Vector Management/Reservoir control						
Surveillance	x	x	x	x	x	X

PACKAGE 3: Transmission Control

3.1 Vector/Reservoir Control

Activity	Vectors and Associated NTDs						
	Mosquitoes			Other Vectors			
				Snails	Black fly	Sand fly	Tsetse fly
	LF	Dengue	Malaria	Schisto	Oncho	Leish	HAT
ITN			X				
IRS			X				
Space-spraying							
Larviciding			X	X			
Traps				X			
Prevention /Treatment of breeding sites			X	X			

3.2 Improvement of water/sanitation and operational research

Activity	LF	Oncho	SCH	STH	Trach	LEP	Leish	HAT	GW	BU	Rabies	Dengue
Partnership for water supply improvement			X	X	X							
Partnership for sanitation improvement			X	X	X							
Social mobilization	X		X	X	X	X					X	
Health Promotion	X		X	X	X	X					X	
Operational Research	X		X	X	X	X					X	

Table : Drug Estimates and Logistics

NTD Programme	Name of Drug	Source Drug	Status of procurement (donated/purchased)	Minimum lead time before delivery	In-country Consignee
LFE	IVM				
LFE	DEC				

Name of Drug	**Source of drug**	Status of procurement (donate/purchased)	Minimum Lead time before delivery	In-country Consignee
IVM				
DEC				
ALB	WHO	Donation		WHO country office
MEB				

PZQ	WHO	Donation		WHO country office
Zithromax				

Drug Forecasting and Logistics

Complete the following table to describe how essential NTD drug supplies will be obtained.

- Identify sources of drugs (procured or donated)
- Describe management, logistics and monitoring system for delivering drugs to field distributions sites.

Table : Drug Estimates and Logistics

NTD Programme	Name of Drug	Source Drug	Status of procurement (donated/purchased)	Minimum lead time before delivery	In-country Consignee
LFE	IVM				
LFE	DEC				