THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Get rid of NTDs (Neglected Tropical Diseases) in Uganda!

An Advocacy Booklet





Letter from the Director General

Neglected Tropical Diseases (NTDs) affect the poorest of the poor. Uganda has a high burden of these diseases, which have dire effects on morbidity, mortality, and socio-economic status of affected individuals and their communities. They experience loss of productivity and educational opportunity, stigma, disability, and in some cases, death. With NTDs, poverty and sickness are intertwined. It is unacceptable for Ugandans to continually suffer from these diseases; we can, and must, do more.

By focusing on controlling or eliminating NTDs by 2020, the Ugandan government is simultaneously tackling serious health issues and impacting the Millennium Development Goals and the Government of Uganda National Development Plan:

- **End poverty** –The socioeconomic impact of eliminating and controlling the debilitating NTDs is great as a result of saving money on medical costs and increasing productivity.
- **Universal Education** – Disease and poverty form a vicious cycle leading to reduced school attendance. Preventing and treating NTDs in children improves cognitive development, growth, and school attendance.
- **Reduce Child Mortality** – Children affected by NTDs are more vulnerable to life-threatening health problems like malaria and severe anaemia.
- **Improve Maternal Health** – Preventing NTDs leads to decreased rates of severe maternal anaemia, malaria and HIV.
- **Combat HIV/AIDS, malaria, and other diseases** – NTDs are part of the "other diseases" globally targeted for reduced incidence by 2015.
- **Uganda's Goal** – To eliminate NTDs as a public health problem by 2020.

We would like to ask you to read through this booklet to better understand what NTDs are, who they affect and what you can do to help us reach our goal of controlling or eliminating NTDs in Uganda by 2020.

I strongly encourage you to actively engage with the MOH NTD programme to see how you can make a difference in the lives of marginalized Ugandans.

Sincerely,

Dr. Jane Ruth Aceng

DIRECTOR GENERAL HEALTH SERVICES


ALBENDAZOLE

The Uganda Ministry of Health
Neglected Tropical Disease (NTD) Control Programme

Uganda is endemic with 12 NTDs.

- Seven can be prevented and controlled by treating people living in endemic areas: lymphatic filariasis, onchocerciasis, schistosomiasis, soil transmitted helminthiasis (roundworm, hookworm and whipworm), and trachoma.
- Five need case management and reduction of vector population: Human African Trypanosomiasis (HAT), leishmaniasis, buruli ulcers disease (BUD), plague, rabies, and tungiasis
- Guinea worm disease was eradicated in Uganda in 2009, but the MOH continues to conduct post-certification surveillance activities.

The Health Sector Strategic & Investment Plan II (HSSP II) targets a number of NTDs for eradication (Guinea worm disease) and elimination (lymphatic filariasis, onchocerciasis, schistosomiasis and trachoma) and promotes resource allocation toward NTD-affected districts. NTD control is also highlighted as part of the Uganda Minimum Health Care Package.

There are ongoing efforts to control these NTDs in the country. Mass drug administration occurs annually in districts endemic with NTDs that can be controlled with medicine. Vector control and NTD case management occurs in varying levels and with varying degrees of success. To reach our elimination and control of NTD goals a concerted effort to mobilize resources and coordinate activities at the National and District –levels needs to occur.

These NTDs are highly endemic in Uganda and pose a heavy burden on poor rural communities. NTDs contribute significantly to morbidity, reduced learning and working capacity and increase vulnerability to malnutrition and infection. The majority of districts in Uganda are endemic for at least one or more NTDs and the number of people at risk or actually infected is very high.

What is your role in eliminating these diseases and improving the lives of millions of Ugandans?

Elephantiasis & Hydrocele (lymphatic filariasis)

What is lymphatic filariasis (LF)?

- LF is a disease caused by tiny thread-like worms transmitted by mosquitoes to humans. Infection is acquired early in life and it slowly begins to cause internal damage
- Adult worms are found in the lymphatic vessels (used for carrying waste body fluids), where they cause damage leading to elephantiasis (swelling of the legs and feet), hydroceles (swelling of the scrotum), and other parts of the body. However, the majority of infected individuals show no physical signs yet can infect mosquitoes
- The disease can be eliminated by treating everyone in all endemic districts every year for five years and by reducing mosquito bites with bed nets. Treatments are donated by WHO.
- The Ministry of Health goal is to eliminate lymphatic filariasis by 2020

How many people in Uganda are affected?

- LF mostly affects the poorest Ugandans. Nearly 14.5 million people in 54 districts are at risk of becoming infected
- In some communities in eastern and northern Uganda, up to 25% of adults show chronic signs of LF; mainly hydroceles

What are we doing about it?

- The NTD programme provides annual drug treatments to nearly 13 million people in affected areas.
- Health workers (Medical Officers) conduct hydrocele surgeries. There are plans to scale up the number of surgeries conducted by implementing surgical camps.
- Those with elephantiasis get health education to control secondary infections and alleviate pain

What can you do?

- Mobilize communities to ensure that everyone is treated during mass drug administration
- Encourage everyone in your district to sleep under a long-lasting, insecticide-treated bed net
- Educate opinion leaders on the risks of contracting LF and the benefits of sleeping under bed nets, taking drugs to prevent infection, and management of chronic manifestations
- Dispel rumors that elephantiasis is caused by witchcraft and hydroceles are hereditary

River blindness (Onchocerciasis)

What is river blindness?

- A disease spread by black flies that causes blindness and disfiguration of the skin
- A leading cause of blindness and visual impairment in Uganda
- River blindness can be reduced to a level where it is no longer a public health problem if all individuals living in affected areas receive treatment every year for 15 to 20 years
- In some areas where the programme treats all people twice a year, river blindness can be eliminated in less than seven years. With additional black fly control, it can take fewer years

How many people in Uganda are affected?

- More than 2 million people are infected with the parasite that causes river blindness, and 3 million more are at risk of being infected
- Approximately 20,000 Ugandans are blind because of river blindness

What are we doing about it?

- The MOH NTD programme provides community directed drug treatments to at-risk populations
- Vector control and elimination being conducted in several foci. The vectors and disease have been eliminated in some areas of focus such as Mt Elgon

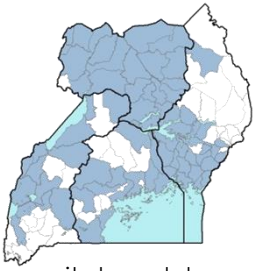
What can you do?

- Mobilize the affected communities to ensure that everybody is treated during mass drug administration
- Educate opinion leaders on the risks of contracting river blindness, signs of the disease and the benefits of taking drugs to prevent infection
- Raise funds to support river blindness control and elimination activities, including mass drug administration and control of black flies
- Dispel rumors that river blindness is caused by witchcraft

Bilharzia (Schistosomiasis)

What is bilharzia?

- A parasitic worm infection that can damage the urinary and intestinal tracts
- Bilharzias larvae are released in water by fresh-water snails. As people enter water, the larvae penetrate their skin and move through the body to the urinary and intestinal tracks, where they develop to maturity. The cycle is complete when infected people urinate or defecate the bilharzia eggs back into fresh water
- The majority of infected people do not have initial symptoms. If untreated, infected individuals can experience stunted growth, cognitive impairment and severe damage internal to organs which can lead to death
- Individuals who spend more time in fresh-water bodies have a higher risk of infection
- Bilharzia can be reduced to a level where it is no longer a public health problem by treating at-risk individuals in all endemic areas every year



How many people in Uganda are affected?

- Bilharzia is in 74 districts in Uganda, mostly those with large fresh-water bodies
- Approximately 4 million people are infected.
  An additional 17 million risk getting infected

What are we doing about it?

- The MOH NTD programme provides annual school and community-based drug treatments to at-risk populations. Fishing communities are typically targeted for treatment

What can you do?

- Mobilize communities to ensure that everyone is treated during mass drug administration
- Raise funds to improve sanitation, including the construction of latrines near water bodies
- Advocate for the scale-up of annual drug treatments in 20 districts that currently do not receive treatments
- Educate opinion leaders on the risks of contracting bilharzia, the need to use latrines, and the benefits of taking medicine to prevent infection

Intestinal Worms (Soil Transmitted Helminthes)

What are Intestinal Worms?

- Intestinal worms include roundworm, whipworm, and hookworm and are transmitted through poor hygiene and sanitation
- Worms enter the body through bare feet or ingestion of contaminated foods
- They cause malnourishment, anaemia, delayed cognitive development and poor growth in children
- Infection in pregnant women can lead to underweight babies and pregnancy complications for the mother

How many people in Uganda are affected?

- Hookworm infection is found throughout Uganda
- Roundworm and whipworm are concentrated in southwestern Uganda, where up to 9 out of 10 people have roundworm and/or whipworm
- Approximately 17 million Ugandans are infected with worms and 33 million are at risk of becoming infected

What are we doing about it?

- Treating all children in Uganda aged 1 – 15 years twice a year with medicine donated by WHO to eliminate the worms
- Providing intensive health education to children in all Ugandan schools
- Constructing sanitary facilities and safe water supply in schools

What can you do?

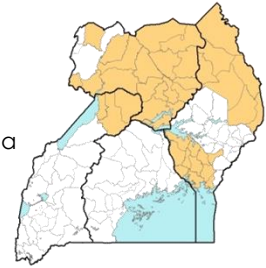
- Advocate for all children in your district to receive treatment twice a year
- Invest in hygiene and sanitation infrastructure
- Support the introduction and maintenance of sanitation and hygiene bylaws in your community
- Raise funds for the production of adequate and appropriate communication materials to promote standard hygiene and sanitation practices

Trachoma

What is trachoma?

- An infectious eye disease caused by bacteria. It spreads by contact with an infected person, eye-seeking flies, dirty fingers and contaminated cloth
- Trachoma causes the inner upper eyelid to become inflamed. With repeated infection, the eyelid becomes scarred, leading to the shortening of the eyelid
- This causes the eyelashes to turn inward and rub on the eyeball, which scars the cornea, and can lead to blindness
- Trachoma is the world's leading cause of preventable infectious blindness
- Elimination of blindness from trachoma is possible by treating everyone in endemic districts every year for 3-5 years, by operating people with in-turned eyelashes, and by improving hygiene and sanitation

How many people in Uganda are affected?



- Over 900,000 children under age 10 have active disease and 10 million people are at risk
- Approximately 47,000 people in Uganda are blind from trachoma and 250,000 people are at risk of becoming blind
- Trachoma is found in 36 districts

What are we doing about it?

- The programme follows the WHO recommended use of the SAFE Strategy (**S**urgery, **A**ntibiotics, **F**acial Cleanliness, **E**nvironmental Improvements) to eliminate trachoma by 2020
- All individuals in endemic districts receive free drugs annually
- Since 2007, more than 12.8 million people have received treatments for trachoma
- Approximately 20,000 trichiasis surgeries have been done to prevent blindness

What can you do?

- Educate opinion leaders about the risks of trachoma and the benefits of improving hygiene and sanitation practices and of taking drugs to prevent infection
- Urge people going blind from trachoma to visit health facilities for surgery
- Support the introduction and maintenance of sanitation and hygiene bylaws in your communities

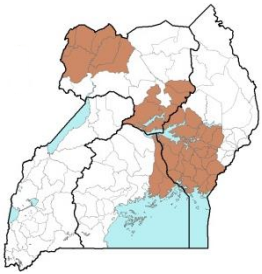
Sleeping Sickness (Human African Trypanosomiasis)

What is sleeping sickness?

- Sleeping sickness is spread by the bite of an infected tsetse fly
- Symptoms include fever, swollen lymph glands, aching muscles and joints, headaches and irritability; untreated the disease attacks the central nervous system and can cause death

How many people in Uganda are affected?

- Nearly 10 million risk getting sleeping sickness.
- The disease mainly affects the rural poor and is found in 40 districts
- There is a resurgence in sleeping sickness and the disease is spreading to areas where it had previously been eliminated, (e.g., Lango Subregion)



What are we doing about it?

- Screening individuals who attend health facilities and treating diagnosed cases
- Supporting health facilities to treat people with sleeping sickness in several endemic districts
- Increasing advocacy and social mobilization efforts in endemic districts

What can you do?

- Advocate for the scale-up of case detection, management and health promotion activities to reach your district
- Support the Ministry of Agriculture, Animal Industry and Fisheries to strengthen programmes targeting tsetse fly elimination

Kala-azar (Leishmaniasis)

What is kala-azar?

- Kala-azar is spread by sandflies. It can cause skin ulcers and damage to internal organs
- If left untreated, up to 90% of individuals with kala-azar will die
- People of all ages are at risk of infection in endemic areas; teenage males have higher risk because of animal herding
- The disease affects the poorest of the poor, and is associated with malnutrition, population displacement, poor housing, weak immune system and lack of resources
- Kala-azar is linked to deforestation, building of dams, irrigation schemes and urbanization

How many people in Uganda are affected?

- The disease is often found in very remote areas and has been reported in Amudat, Moroto and Kotido districts
- Limited data is available on current infection levels

What are we doing about it?

- The treatment for kala-azar has been added to the essential drug list, making it easier to import the drug
- A flow-chart to accurately identify kala-azar was developed and is in use at health facilities in endemic areas

What can you do?

- Advocate for a National Control Programme for kala-azar
- Raise funds for early diagnosis and effective case management to reduce prevalence of the disease and prevent disability and death
- Educate opinion leaders on the benefits of sleeping under insecticide treated bed nets and provide health promotion to community members
- Encourage community-level health promotion activities that promote individuals to seek treatment early

Plague

What is Plague?

- Plague is caused by bacteria transmitted to humans through the bite of an infected flea typically found on rats
- Cases in Uganda result in fever, headache, chills, weakness and swollen lymph nodes
- Plague outbreaks typically occur because of cultivation of grain crops, deforestation, civil unrest, poor sanitary conditions and the displacement of populations

How many people in Uganda are affected?

- Arua and Zombo districts of northwestern Uganda bordering Democratic Republic of Congo have been endemic for over 40 years and have had 5 outbreaks in the last 20 years
- During the past 10 years, more than 2,000 plague cases have been clinically diagnosed in the Arua and Zombo districts of Uganda. MOH has reported an average of 200 plague cases per year from this region, with 30% resulting in death
- Uganda accounts for 50% of the plague cases worldwide

What are we doing about it?

- The Ministry of Health, Uganda Virus Research Institute, Entebbe and the US Centers for Disease Control and Prevention are collaborating on plague research and control in Arua and Zombo districts and have strengthened a field laboratory in the area
- Cases of plague can be confirmed directly at the laboratory enabling life-saving early diagnosis and treatment
- Flea control activities are carried out during outbreaks

What can you do?

- Advocate for an increase in government ownership of the programme at both the central and district levels to ensure the sustainability of the programme
- Support sanitation and housing improvements to reduce the presence of rodents in households
- Promote the strengthening and use of the existing health services in the districts
- Encourage traditional healers to refer suspected cases of plague to the health facility

Buruli Ulcer Disease

What is Buruli ulcer disease?

- The exact mode of transmission is unknown but the disease is the third most common mycobacterial infection after tuberculosis and leprosy and is usually found near rivers, swamps and wetlands
- Infection leads to large ulcers usually on the legs or arms
- Patients who are not treated early suffer long-term disability such as restricted joint movement and noticeable cosmetic problems
- About 75% of those affected are children under 15 years of age

How many people in Uganda are affected?

- Currently, there is limited data available on Buruli ulcer disease. Routine surveillance needs to improve for early detection

What are we doing about it?

- A drug treatment package is available for all forms of active disease
- In Adjumani and Moyo districts, Village Health Teams are trained to detect cases, and health workers in hospitals are trained to diagnosis and manage cases

What can you do?

- Advocate for a National Control Programme for Buruli ulcer disease
- Support the strengthening of health facilities and training of health workers and VHTs
- Educate community leaders on the risks of Buruli ulcer disease and the benefit of reporting cases to a health worker

Rabies

What is rabies?

- Rabies is a viral disease that is nearly always fatal to humans and animals
- Over 95% of rabies cases in Uganda originate from rabid dog bites and the majority of cases are school-aged children
- Rabies is a disease of rural and urban populations of low socio-economic status
- There is poor community awareness due to insufficient funding and inadequate supply of medicine for individuals bit by a rabid animal, leading many people to seek care from traditional healers

How many people in Uganda are affected?

- Rabies is endemic in most parts of the country
- About 10–20 individuals die and 5,000 are treated for rabies each year
- The presence of many free-roaming and unvaccinated pets (dogs and cats) is a major risk factor and contributes to the spread of rabies to humans

What are we doing about it?

- Rabies preventive and control activities are a mandate of the Ministry of Agriculture, Animal Industry and Fisheries and the Ministry of Health
- Rabies is a priority disease in the health sector and cases of rabies reported to health facilities are reported to the Ministry of Health weekly
- Produced and disseminated health education materials, an advocacy video and supported mass vaccination campaigns of dogs and cats to control outbreaks in some districts

What can you do?

- Advocate for your district to do regular vaccination campaigns for dogs and cats
- Support surveillance activities in your district to understand the magnitude of the disease
- Support increased funding for implementation at all levels and the inclusion of rabies control in the annual district work plans

Jiggers (Tungiasis)

What are jiggers?

- A painful itching skin disease caused by a sand flea that burrows into the skin
- Jiggers are targeted for elimination by 2018

How many people in Uganda are affected?

- More than 6 million people are at risk and at least 1 in 10 Ugandans has jiggers
- Jiggers is found in all regions but 50% of the cases are found in the eastern region, with the most severe cases found in Busoga sub-region

What are we doing about it?

- In 2010 the MOH assessed the jiggers situation, provided technical guidance and participated in the launch of the elimination campaign in Busoga sub-region
- Research to determine the environmental factors, distribution of cases, and best treatment options is ongoing

What can you do?

- Advocate for improved case detection and management
- Encourage improved sanitation practices in communities, such as sweeping the compound and house daily
- Educate community members on the importance of smearing floors to eliminate breeding of jigger fleas and avoiding sharing homes with pigs
- Support the development and enforcement of hygiene bylaws to strengthen best practices

Guinea Worm Disease (Dracunculiasis)

What is Guinea worm disease?

- Guinea worm disease is an infection caused by a parasite and is spread by drinking contaminated water
- The parasite grows in the body and emerges 9-12 months later from a blister, typically located on the lower leg
- The disease typically affects poor, remote communities that do not have safe drinking water
- Guinea worm disease is targeted for global eradication

How many people in Uganda are affected?

- None. The country was certified free of the disease in 2009

What are we doing about it?

- The Uganda Guinea worm eradication programme eradicated Guinea worm in 2009
- Surveillance activities are being carried out and a suspected case of Guinea worm disease is now considered a public health emergency
- A reward system is in place to encourage active case searches and reporting of any Guinea worm cases

What can you do?

- Educate opinion leaders about the need to support surveillance activities in high risk areas near the border of South Sudan

How can YOU make a difference?

- Participate in a Neglected Tropical Disease (NTD) mass drug administration (MDA) in your district
- Advocate for the inclusion of NTD activities in district plans
- Mobilize communities for 100% coverage of those eligible for treatment during MDA
- Take part in a radio call-in show with health officials and local government leaders in your district
- Tell someone about NTDs, how they affect Ugandans, and what they can do to help eliminate NTDs
- Support your area in developing and enforcing bylaws for community hygiene and sanitation
- Advocate for the resources required to fully staff and retain personnel for the primary health care system
- Promote training on NTDs as part of pre-service and continuing medical education for health workers
- Contact the NTD programme at the MOH to learn more about NTDs

THE REPUBLIC OF
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Uganda NTD Control Programme partners:

African Programme for Onchocerciasis Control (APOC)
The Carter Center (TCC)
Centers for Disease Control and Prevention (CDC)
Children Without Worms (CWW)
GlaxoSmithKline (GSK)
International Trachoma Initiative (ITI)
Johnson & Johnson (J&J)
Mectizan Donation Program (MDP)
Merck
Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC)
Pfizer
RTI International – ENVISION Project
Schistosomiasis Control Initiative (SCI)
Sightsavers
USAID
World Health Organization (WHO)

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