Accelerate Resilient, Innovative, and Sustainable Elimination of NTDs (ARISE)

Ministry of Health

REPUBLIC OF KENYA

ARISE Fund

Introduction

Neglected Tropical Diseases (NTDs) are a diverse group of communicable diseases prevalent in tropical and sub-tropical regions. The World Health Organization (WHO) has recognized 20 NTDs globally. These conditions include Leishmaniasis, Human African Trypanosomiasis (sleeping sickness), Schistosomiasis (Bilharzia), Lymphatic Filariasis (elephantiasis), Onchocerciasis, Dracunculiasis, Ectoparasites (including jiggers) and Trachoma, among others. They are caused by a variety of pathogens, such as viruses, bacteria, protozoa, and parasitic worms. These conditions affect over 1 billion people globally and are responsible for significant morbidity and mortality among affected populaions.

Beyond their negative impacts on health, NTDs contribute to a vicious cycle of poverty and stigma that leaves people unable to work, go to school or participate fully in family and community life. The main contributing factors to these conditions include lack of access to health services, low levels of literacy, inadequate nutrition and limited access to clean and safe water. If left untreated, these conditions can cause severe complications, including disability and disfigurement which leads to stigmatization and social exclusion.

NTDs are a devastating obstacle to human and socio-economic development of already impoverished communities. There is evidence that control of these diseases can contribute directly to achievement of several Sustainable Development Goals which are a global pledge to leave "no one behind." Under SDG 3 "Ensure healthy lives and promote wellbeing for all". Target 3.3 aims to "end the epidemic" of NTDs by 2030. Other targets relevant to NTDs include 3.8 on Universal Health Coverage (UHC), 6.1 (water) and 6.2 (sanitation). Attaining these targets will ensure that the world's poorest and most marginalized people are prioritized at every step on the path towards attaining the SDG targets.

Kenya NTD Program

The NTD Program is guided by two key documents: the NTD Master Plan (2023-2027) which has been finalized and will be launched in 2023; and Breaking Transmission Strategy (BTS) 2019-2023. The Master Plan is aligned to the WHO Global NTD Roadmap 2021–2030. The BTS focuses on four diseases (Trachoma, soil transmitted helminths, schistosomiasis and lymphatic filiariasis) and aims to accelerate elimination. Water, Sanitation and Hygiene (WASH) and Behavior Change Communication (BCC), resource mobilization, advocacy, supply chain management and capacity building are critical pillars towards sustainability.

Kenya's health system is managed within a devolved structure, with the 47 County Governments responsible for implementation (295 sub-counties). The National Government has five responsibilities: (i) policy and strategic direction; (ii) capacity building; (iv) management of national referral facilities; and (v) technical assistance including inter-county collaboration.

The Kenya NTD Program, which is implemented by the Division of Vector Borne and Neglected Tropical Diseases (DVBNTD) has registered major successes in the last decade including increased MDA coverage to almost all known endemic areas for LF, Trachoma and upscaling for STH/SCH. Morbidity Management and Disease Prevention (MMDP) interventions have been implemented for LF and Trachoma. However, the Program faces myriad challenges including limited resources; inadequate participation of National and County Governments; limited BCC and WASH interventions; unaligned NTD data in a single respository; and gaps in the supply chain.

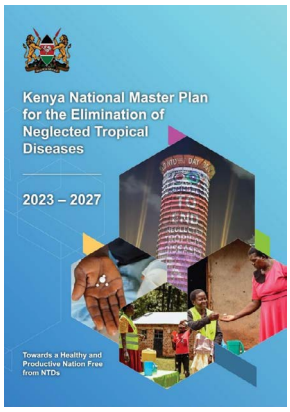

Figure 1
National NTD Master Plan

OVERVIEW OF ARISE II

The ARISE II (Accelerate Resilient, Innovative, and Sustainable Elimination of NTDs) is a successor project to ARISE 1 (implemented in 2022), which was a direct response to the UK Foreign Commonwealth and Development Office's funding cuts to NTDs in 2021. ARISE 1 provided funds for the most critical NTD program activities across 16 countries. The goals of ARISE II are: (i) increased sustainability through strengthened government and community leadership; and (ii) achieve accelerated progress towards NTD elimination goals.

ARISE II, to be implemented over 3.5 years (October 2022 to December 2025), seeks to support five country programs (Burkina Faso, Ethiopia, Kenya, Senegal and South Sudan) and local partners to implement activities based on country's priorities that accelerate the elimination of NTDs. These five countries have indicated their commitment to co-financing and coordinating activities focused on optimizing delivery, informing data-driven decision making, and supporting long-term elimination and/or control of five Preventive Chemotherapy (PC) NTDs that include: LF, Onchocerciasis, SCH, STH, and Trachoma.

ARISE 2 implementation is based on the following six (6) principles:

i. **Locally driven, country-centered**
ii. **Local investment**
iii. **Strengthen and go beyond business-as-usual**
iv. **Innovation**
v. **Excellence in follow-up, evaluation, and learning**
vi. **Co-investment with countries and concentration on increasing local resources for NTDs**

The collective donors [Bill & Melinda Gates Foundation, Children's Investment Fund Foundation (CIFF), and ELMA Foundation] selected the END Fund as a strategic partner to lead funding and operational management for the program.

Figure 2
Key implementing partners for ARISE II, Dakar, Senegal (Nov 2022)

ARISE II Kenya focuses on SCH, STH, Onchocerciasis /River blindness and limited aspects of Trachoma.

ARISE II KENYA NTD PROJECT TARGETS (2022 – 2025)

DISEASE	ENDEMICITY	AFFECTED COUNTIES	KEY PROJECT ACTIVITIES
SCH	6.7 million	Lamu, Kwale, Kilifi, Mombasa, Tana River, Taita Taveta, Busia, Siaya, Kisumu, Homa Bay and Migori	Granular mapping, mass drug administration, mid-term surveillance, WASH and SBCC
STH	7.8 million	Lamu, Kwale, Kilifi, Mombasa, Tana River, Taita Taveta, Busia, Siaya, Kisumu, Homa Bay and Migori	Granular mapping, mass drug administration, mid-term surveillance, WASH and SBCC
Oncho	Non-endemic	Previously endemic Counties include: Kakamega, Kisii, Migori, Kericho, Vihiga and Homa Bay	Formation of a National Elimination Expert Committee, dossier preparation, post elimination surveys and awareness creation
Trachoma	11 million	Narok, Kajiado, Baringo, West Pokot, Marsabit, Turkana, Garissa, Samburu, Meru, Isiolo, Embu and Kitui	Social mobilization, WASH and advocacy

OTHER KEY PROGRAM ACTIVITIES

Advocacy: Successful advocacy requires joint efforts that involve numerous people and tools to reach critical mass. The key advocacy activities planned include high level meetings at the national and county levels, engagement with the media to advocate for WASH, BCC and NTDs, formation of an NTD Policy; and domestic resource mobilization.

WASH & SBCC: WASH-related activities will be expanded to promote healthy behavior through social and behavior change communication. Access to safe water and use is key in control and elimination of some NTDs while provision and use of functional latrines for safe disposal of fecal matter and urine prevents infections and reinfections of STH, Trachoma and SCH. Hand hygiene is also key in controlling infections that are transmitted via fecal oral route, and fomites. Provision of hand washing facilities in schools, health facilities and at household level. The project will leverage on existing partnerships nationally and within the counties to address WASH deficits in endemic counties.

Domestic resourcing: One of the key challenges facing the attainment of PC-NTD targets is inadequate resources. Although the NTD activities will, in the short-term, continue to rely on donor funds, donated drugs and technical assistance, it is anticipated that in the next two years ARISE II will develop a transition plan to support the uptake of domestic funding by 30%. Partnerships will remain a key strategy for resource mobilization and program implementation.

Innovation in data management: The STH/SCH microplanning project has demonstrated, the potential of preplanning to achieve desired MDA coverage through utilization of population data. The DVBNTD is making great efforts in ensuring the NTD data is captured under DHIS platform by embedding key indicators in the platform. An NTD M&E data management system will be developed to allow the Program to have a dedicated platform. The system will be linked with the mainstream MoH's KHIS.

Evaluation plan: The project will be evaluated at mid-term and endline. The mid-term review will be used to ascertain whether the project is on course and make recommendations for any adjustments, if required. A final evaluation will be conducted at the project endline to determine whether the expected outcomes have been achieved.

Supply chain: To effectively implement NTD interventions, the Division requires commodities including drugs for MDAs, mapping, surveillance, diagnostics, case management and MMDP. The Program team will build capacity in supply chain management at all implementation levels digitalize the last mile reporting process to CDD level from the CDD supervisor level to the sub-County pharmacist/laboratory focal point; integrate the various commodity reporting platforms – NTDeliver and Logistics Management Information System (LMIS) and align them to NTD M&E Supply Chain Framework for PC-NTDs, among other platforms.

IMPLEMENTATION

The Kenya project is implemented by the Ministry of Health (MoH) through the DVBNTD. The African Institute for Health & Development (AIHD) is the implementing partner. END Fund will provide oversight and technical support throughout the life of the project. The Clinton Health Action Initiative (CHAI) will provide support on all data related activities.

The project team will hold annual work planning meetings during which project progress will be reviewed and planning done for the subsequent year. These meetings will be attended by the MoH officials, partners and the funding agencies, as necessary.

A BRIEF ON THE FOUR CONDITIONS

Schistosomiasis (SCH)

The most prevalent forms of SCH in Kenya is the urogenital form caused by S. haematobium. It is estimated that 9.1 million people are infected and approximately 17.4 million at risk. SCH is a focal disease which is recognized to be endemic in three major areas; Coastal region (mainly Schistosoma haematobium), parts of Central and Lower Eastern areas (both Schistosoma Haematobium and Schistosoma Mansoni) and the Lake Victoria basin (mainly Schistosoma Mansoni). However, there exists pockets of SCH transmission in the central, western and North-Eastern region.

Figure 3: Sample collection and SCH screening.

Soil Transmitted Helminths (STH)

STH are a group of intestinal parasites that are thriving in places with poor sanitation and where soil is warm and humid. In Kenya, the three main types of STH that are prevalent include; Ascaris lumbricoides (roundworm), Trichuris (whipworm), and hookworms (Necator americanus and Ancylostoma duodenale). Approximately 17.4 million people are at risk. The most affected are school going children causing cognitive and other deficiencies.

Figure 4 : Mass Drug Administration for STH

Trachoma

Trachoma is an infectious blinding disease caused by Chlamydia Trachomatis. The disease is prevalent in dry areas with poor hygiene. Active Trachoma occurs in children while potentially blinding Trachoma, which appears in adulthood. The Agenda for Kenya Trachoma Elimination Program, envisions undertaking of the following activities: clear the remaining TT backlog; accelerate MDAs in the remaining endemic areas by conducting bi-annual treatment where indicated; intensified WASH interventions and BCC; and mainstreaming all components of Surgery, Antibiotics, Facial cleanliness and Environmental Improvement (SAFE)strategy into the National Health system for sustainability. The Program is also developing the Country Elimination Dossier to WHO by 2026.

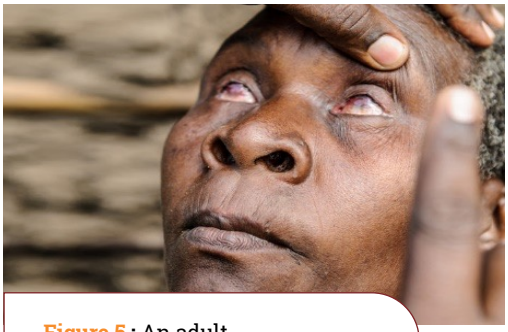

Figure 5 : An adult with Trachoma

Onchocerciasis

Onchocerciasis, commonly known as river blindness, is a parasitic disease caused by the filarial worm *Onchocerca volvulus*. The infection is transmitted from person to person by the bites of black flies that breed in fast-flowing rivers and streams. In the human host, adult male and female O. Volvulus worms become encapsulated in fibrous tissue (nodules) and fertilized females produce embryonic microfilariae that migrate to the skin, where they are ingested by the black fly vectors during a blood-meal. In the vector, the microfilariae develop into the infectious L3 stage, at which time they can be transmitted to the next human host via subsequent bites. The parasite has no known environmental reservoir or important non-human host. Although Kenya is considered Onchocerciasis free, the program will undertake further mapping assessments to confirm that the disease is no longer of public health importance and apply for elimination certification from the WHO.

Figure 6: Blindness caused by ONCHO

Contacts:

Mr. Wyckliff Omondi
Head, Division of Vector-Borne and NTDs
Ministry of Health, Kenya
P.O. Box 30016 - 00100
Nairobi, Kenya
Email: wyckliff.omondi@gmail.com

Dr. Mary Amuyunzu-Nyamongo
Project Director, ARISE II
African Institute for Health & Development
P.O. Box 45259 - 00100
Nairobi, Kenya
Email: mnyamongo@aihdint.org