NTD treatment strategies Angola MoH-Mentor-END fund

Reference documents:

- ***Plano Estratégico: Controlo de Doenças Tropicais Negligenciadas em Angola 2012-2016***, Ministry of Health Angola, 2012.
- ***Inquérito nacional sobre a prevalência das helmintíases intestinais e das shistosomíase em crianças em idade escolar,*** Ministro do Saúde Angola/PAM/WHO/UNICEF, 2005.
- ***Mapping of schistosomiasis and soil transmitted helminths in the provinces Zaire, Uige and Huambo*** – Angola Ministry of Health /Mentor Initiative, 2014.
- ***'Preventive chemotherapy in human helminthiasis'*** a manual for health professionals and programme managers for the coordinated use of antihelminthic drugs in control interventions, WHO 2006.
- ***Memorando de cooperação relativo ao suporte a ser dado pela ONG Mentor Initiative ao Programa Nacional de Controlo de Doenças Tropicais Negligenciadas (PNDTN) de Angola***. Partnership agreement between Angola MoH and The Mentor Initiative, 16 October 2014.

1. Mapping

Prior to the mapping of schistosomiasis (SCH) and soil transmitted helminths (STH) in the provinces Huambo, Uige and Zaire in 2014, the World Health Organization (WHO) estimated that all Angola children are at risk for SCH and STH. However, these estimates are based on a previous mapping initiative (2005) which covered only a few of the municipalities. The mapping results done according to the WHO approved protocol used for the mapping in 2014, are giving detailed results per municipality, the implementation level for health care services.

The detailed mapping results per municipality are available through the reports from Dr Jose C. Sousa-Figueiredo (LSTM), published in 2014. The table below is a summary of the average disease distribution per province, comparing with the estimates from WHO based on the mapping in 2005.

	SCH		STH	
	2005	**2014**	**2005**	**2014**
Huambo	High risk, prevalence >30%	Disease distribution moderate and focalized, prevalence 23.4 %	>=20% - <50%	Hookworm 0.1 % Ascaris 11.5 % Trichuriasis 1.0 %.
Uige	High risk, prevalence >30%	Disease distribution moderate and focalized, prevalence 14.1 %	> 50%	Hookworm 16.8 % Ascaris 49.2 % Trichuriasis 7.9 %.

Zaire	High risk, prevalence >30%	Disease distribution moderate and focalized, prevalence 17.6 %	<50%	Hookworm 4.8 % Ascaris 17.6 % Trichuriasis 3.3 %.

The high quality of the disease mapping 2014, with increased sampling density, will allow the government to better plan chemotherapy strategies at the provincial or municipality level, maximizing efficiency and minimizing drug wastage.

The variations between the 2005 and the 2014 mapping results for the provinces Huambo, Uige and Zaire, are suggesting that there is a need for updated SCH/STH mapping in the other 15 provinces of Angola prior to the planning of intervention strategies. WHO-AFRO is able to support the initiatives from the Government of Angola to complete country-wide coordinated NTD mapping (SCH/STH/LF) before the end of 2015. The mapping surveys will provide accurate information of the NTD diseases burden in the whole country. The MoH is planning the countrywide mapping of NTDs using the WHO protocol for coordinated mapping of SCH, STH, LF and ONCHO in some previously unmapped areas. The mapping will also include the provinces Huambo, Uíge and Zaire. The WHO coordinated mapping protocol is different from the protocol used by MENTOR in 2014, in the sense that it includes focalized mapping of SCH based on geographic specificities (e.ge.areas around water bodies), at sub-district level. This will increase the chance of finding higher prevalence, depending on the extrapolation models, possibly also at district level. In fact this insinuates that the MoH do not really take the mapping done in 2014 and supported by END Fund/MENTOR as valid research documentation and as a reference for intervention strategies.

The 2014 mapping results show a lower disease burden than expected, compared to the mapping results from 2005. The lower endemnicity means that Zaire and some municipalities of Huambo and Uige fall below the threshold of two MDA rounds per year according to WHO recommendations. Being the most up to date mapping, we have used our 2014 results to inform the MDA strategy for this document. MDA plan for 2015: ALB one round in Zaire and 2 municipalities of Huambo, 2 rounds in Uíge, PZQ : 1 round in 1 municipality of Uíge (see submit treatment MDA treatment schedule ALB and PZQ till 2017).

Different to the WHO suggested protocol for coordinated mapping of NTDs, mapping of lymphatic filariasis (LF) has not been included in the mapping survey 2014 in the provinces Huambo, Uige and Zaire. Prevalence of LF requires development of intervention strategies that will influence the intervention strategies against STH. Therefore The MENTOR Initiative is supporting initiatives from the Ministry of Health and partner organizations to implement the mapping of LF in Huambo, Uige and Zaire.

No mapping of trachoma (TRA) has been done in the past, only records of trachoma diagnosis and treatments through the eye-care services of the Ophthalmologic Center Boa Vista in Benguela have been reported. A limited number of provinces and/or municipalities of Angola are eligible for mapping of trachoma; The MENTOR-Initiative will investigate if the Ministry of Health is planning to implement the mapping of TRA, with support from WHO and the Global Mapping of Trachoma Project (GTMP). Once more information is available, The MENTOR-Initiative will discuss with END

Fund to determine together if TRA may be a future candidate to include within the Angola NTD programme scope.

Mapping of onchocerciasis (ONCHO) has been completed by the Ministry of Health in partnership with the African Programme for Onchocerciasis Control (APOC) through surveys in 2002 and 2008, some remapping or refined mapping in certain area´s might still be pending. In 2008, also mapping of co-endemicity of ONCHO and Loasis (LOA) has been completed.

2. Treatment strategies

The treatment strategies as presented in the strategic plan for control of NTDs in Angola 2012-2016 from the Ministry of Health are based on the WHO estimations from 2005 on disease distribution. A new treatment strategy based on the results and the recommendations from the mapping 2014 reports and the WHO guidelines on Preventive Chemotherapy (PC) in human helminthiasis, is to be adopted and implemented by the Ministry of Health of Angola and the mapping of SCH/STH/LF and TRA in the 15 remaining provinces has to provide the evidence for future PC intervention strategies.

The MENTOR-Initiative treatment strategy is following the recommendations from the mapping 2014 reports through school-based interventions, in partnership with the Ministry of Health and the Ministry of Education. The target group for treatments with Albendazole and Praziquantel are children age 5-15. The schedule for school-based interventions in Huambo, Uige and Zaire till 2017 and beyond is available (see 'School-based MDA interventions till 2017' spreadsheet). During the school-based treatment campaigns, also non-school-enrolled children from the communities who are coming to the distribution points, are receiving the treatments; those children are not mobilized in a systematic way. Simultaneous with the drug distribution campaigns, a WASHE programme is being developed and implemented.

Opportunities for future treatment strategies:

- Increasing the impact of the activities and campaigns and optimized use of resources through co-distribution of Albendazole (ALB) + Praziquantel (PZQ) during one single campaign, according to the treatment schedule.
- Re-definition of the target groups for PC treatments with ALB and PZQ according to the WHO definition of target groups.

	Current target group	**Extended target groups according to WHO guidelines**
ALB	School-aged children 5-15 through school-based interventions	• Pre-school children age 1-5 •Non-school-enrolled children age 5-15 • Woman of childbearing age, incl. pregnant woman in 2nd+3rd trimester. •Adults at high risk
PZQ	School-aged children 5-15 through school-	•Non-school-enrolled children age 5-15

	based interventions	•Adults considered to be at high risk • Entire communities living in SCH endemic area´s

Considerations:

- MoH/NTD programme is currently supporting school-based interventions for SCH and STH treatments. Reaching the extended target groups will involve the development of other than school-based interventions, such as community-based interventions or interventions integrated with other health campaigns (eg polio and measles vaccination campaigns).

- The population numbers of the new target groups can be obtained through the national census 2014, the data obtained through the pre-MDA Ivermectine census from the CDTI projects and statistics from the health units (pregnant woman).

- Target for Merck PZQ donations are school-aged children. It has to be explored if the drugs can be used to treat other target groups.

Proposed strategy

To start a pilot project on integrated distribution of ALB and PZQ for treatment of the extended target group in the municipality Songo, Uige Province, using the Community Directed Treatment with Ivermectin (CDTI) project structure.
The CDTI projects are established in the ONCHO-endemic area´s and have developed community based structures for the distribution of Ivermectin and the sensiblisation, mobilization and awareness raising campaigns against onchocerciasis. These structures are assuring high coverage of the interventions because the community agents are responsible for the treatment of all the persons living in the community. These community agents are able to identify the people from the extended target groups for PZQ and ALB treatment, eg pre-school children, non -enrolled school-age children, woman of childbearing age, incl. pregnant woman in 2nd+3rd trimester, adults at high risk such as miners, workers in tea and coffee plantations. The community agents are playing the intermediary role between the National Health facilities and the communities that often have very difficult access to the health care provided by the health facilities.

The twin-track approach of using school-based interventions and community-based interventions accompanied with sensitisation and awareness raising campaigns, will increase the impact of the treatments, assure higher coverage and contribute to the interruption of the cycle of re-infestation.

- Geographic extension of the intervention area for NTD control, including the Bié Province
  Following conditions are making an extension of the geographic intervention area´s possible:
  - The SCH/STH mapping results from 2014 are showing unexpected low disease burden in the provinces Huambo and Zaire. Consequently fewer treatment campaigns and

accompanying activities will be implemented during the MENTOR/END Fund programme cycle which will make resources available for programme implementation in other areas.

- Possibly The MENTOR –Initiative will open a sub-office in the province Bié, capital Kuito, towards the end of 2015 as part of the Malaria Public Health programme in partnership with the MoH and World Learning. The start of the Malaria Public Health programme in Bié shouldn´t be a condition for the initiation of a NTD programme, however, the opening of a base in Bié Province would offer the opportunity to share resources for both the Malaria Public Health programme and the NTD programme as is currently done in the existing three provinces.
- The SCH/STH mapping report from WHO 2005, is making following estimates on the disease distribution and consequently recommendations for MDA treatments:

	Disease distribution	**Recommendation on MDA treatment**
STH	< 50 %	Annual treatment with Albendazole
SCH	>30 %	Annual treatment with Praziquantel

It is anticipated that the MoH in partnership with WHO will implement the coordinated mapping of NTDs (SCH/STH/LF) , following the new WHO approved protocol including a higher sampling density, which will give more specific disease prevalence per municipality and consequently treatment recommendations. The mapping results are expected to be available during the course of 2015. Alternatively, The MENTOR-Initiative/The END fund in partnership with the MoH should be solicited to initiate and assist the implementation of the coordinated mapping survey in Bié.

- Lessons learnt from the initiation and the implementation of the NTD programme in the provinces Huambo, Uige and Zaire will make the start-up phase of the NTD programme in Bié smoother and more accurate and the sharing of resources will make it more cost-effective.

New proposed strategies for Y3:

- Consolidate and improve the MDA activities in the provinces Huambo, Uige and Zaire according to the treatment schedule based on the mapping results and the WHO PC treatment guidelines.
- MDA campaign ALB + PZQ in the province Bié according to the treatment schedule recommended through the STH/SCH mapping report from 2005, awaiting updated and specific mapping results at municipality level.
- Join the CDTI-partnership in 5 municipalities of Uige Province and launch a pilot project on integrated distribution of ALB and PZQ through the CDTI structure with the purpose to reach the new target groups, through school-based distribution of ALB and PZQ
  1. co-distribution of ALB, PZQ (potentially together with IVM) in the municipality Songo

2. co-distribution of ALB (potentially together with IVM)in the municipalities Bungo, Negage, Puri.
3. distribution of ALB in municipality Quitexe (no IVM because of co-prevalence of ONCHO and LOA).

- Upon request from the Ministry of Health, seek ways to support the Government in mapping of NTDs (LF, SCH and STH) in all the provinces of Angola.
- Investigate the intentions from the Government to implement mapping of trachoma in Angola.
- Discuss with END Fund, potential support needs for the government in the school-based distribution of PZQ that are expiring in 2015/2016 in provinces or municipalities where the mapping from 2005, and has shown moderate or high risk areas and the report recommendation is including MDA of PZQ. Discussion will consider any low risk opportunities to assist the government, only if and where MENTOR additional capacity exists, without jeopardizing the ongoing NTD programme in Zaire, Uige and Huambo.

3. Partnerships

- Keeping up the partnership with the MoH is still an act of balancing; no sustainable and purpose-oriented mode of collaboration has been developed yet. The partnership is much depending on the commitment from individuals at the MoH. The MENTOR Initiative will continue to prioritize the partnership with the MoH and assist the MoH in the implementation of the national NTD programme. It is expected that the assistance from the MENTOR NTD Liaison Coordinator, who will be based permanently in Luanda, will contribute to building the good relationship.

- Pharmaceutical companies are global partners from WHO in the fight against NTDs and committed to providing the needed drugs on request from the Governments. The Governments are making annual drug requests through WHO, based on their treatment strategy, WHO manages the NTD drug supply to the countries. NGO implementing partners from the MoH have no direct mandate for the supply of drugs to the country. Supplying drugs parallel to the WHO drugs provision for PC-NTD treatments is approved by the Government, but may not be desirable as it may undermine the WHO/MoH supply chain. NGOs can assist the government in case of shortage of drugs or for treatments of changing target groups or intervention strategies.

- The transition from “APOC” into the “Programme to End Neglected Diseases in Africa” (PENDA) by 2016 is expected to have profound consequences for the NTD partnerships. PENDA will be steered by a Trust Fund and a Committee of Sponsoring Agencies, which will make direct funding of country programmes less attractive for funding agencies. The country programmes will be steered by a 3-party-partnership between the Government-PENDA-NGOs. PENDA will play a central role in the development of the country programmes and the NGOs will play supportive roles as implementing partners.