Report on the

Fourteenth meeting of the Regional Programme Review Group on lymphatic filariasis elimination and other preventive chemotherapy programmes

Cairo, Egypt
12–14 October 2015
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1. INTRODUCTION

The 14th meeting of the Regional Programme Review Group (RPRG) on Lymphatic Filariasis Elimination and other Preventive Chemotherapy Programmes was organized by the WHO Regional Office for the Eastern Mediterranean at its premises in Cairo, Egypt, from 12 to 14 October 2015. The meeting was attended by representatives from the ministries of health of Afghanistan, Egypt and Sudan. The meeting was also attended by neglected tropical diseases experts, representatives of partner institutions such as END Fund, Mectizan Donation Programme (MDP) and Schistosomiasis Control Initiative (SCI). Also in attendance were representatives from the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) and World Food Programme (WFP) and WHO staff from headquarters, the Regional Office and country offices for Afghanistan, Egypt, Sudan and Yemen.

The overall objective of the meeting was to review and discuss current and future challenges in controlling and eliminating lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminthiasis in the Eastern Mediterranean Region. For all such neglected tropical disease programmes, the main strategic component is preventive chemotherapy. The scope of the 14th meeting was broadened to involve the trachoma focal point from Sudan as a reflection of the progressive integration of neglected tropical disease programmes in Sudan. The specific objectives of the meeting were:

- to share up-to-date information on control of neglected tropical diseases;
- to review progress made in countries in 2014 and 2015 with regard to neglected tropical disease programmes (mapping, treatment, monitoring, etc.);
- to review country action plans for 2016 (submission of the joint application package, mapping, treatment, monitoring and evaluation, morbidity management and disability prevention, etc.);
- to provide normative and operational feedback to countries; and
- to agree on drug requirements for 2016.

The agenda and list of participants are included in Annexes 1 and 2, respectively. The meeting concluded with a series of action points based on feedback and discussions during the sessions.

2. GLOBAL UPDATES

2.1 Progress towards the WHO Neglected Tropical Disease Roadmap: preventive chemotherapy

In 2014, over 1 billion treatments were globally administered through preventive chemotherapy interventions to 845 million individuals (+ 60 million compared with 2013). Out of them, people treated in countries in the Region were 22.2 million, out of a total number of people requiring preventive chemotherapy of 94.8 million, equivalent to a coverage of 23.2%. Major treatment gaps, as of 2014, were in Pakistan (soil-transmitted helminthiasis), Somalia (lymphatic filariasis, schistosomiasis, soil-transmitted helminthiasis), Sudan (lymphatic filariasis, schistosomiasis, soil-transmitted helminthiasis) and Yemen.
(onchocerciasis). Between 2012 and 2014, only 30% of the drugs donated by WHO to countries of the Region were distributed in time. Causes of such low figure are underreporting and/or postponement of treatment interventions.

Ways forward to accelerate the preventive chemotherapy agenda were identified as follows.

- Refine and update the population requiring preventive chemotherapy.
- Build capacity at implementation level.
- Increase domestic financing.
- Ensure data-based monitoring and evaluation to increase programme efficiency.
- Ensure that deworming of children continues when mass drug administration for lymphatic filariasis is stopped.
- Increase access and reporting on morbidity management.
- Prepare and apply for validation of elimination as a public health problem (lymphatic filariasis, trachoma) and verification of elimination (onchocerciasis, schistosomiasis).
- Strengthen linkage with water, sanitation and hygiene programmes.

The 8th meeting of the Strategic and Technical Advisory Group on neglected tropical diseases took place in Geneva in April 2015. The Group’s recommendations with regard to preventive chemotherapy were as follows.

- The Alere filariasis test strip was approved for use in the Global Programme to Eliminate Lymphatic Filariasis as a diagnostic tool for *W. bancrofti*.
- Semi-annual treatment with ivermectin was approved as a means to hasten elimination of onchocerciasis, subject to availability of resources.
- Tools based on circulating cathodic antigen (CCA) assays were approved as point-of-care tests for use in mapping, monitoring and evaluation of *S. mansoni* infection.
- Data quality assessments were recommended to objectively assess preventive chemotherapy data quality, once every 3–5 years.
- Drug usage and inventory should be monitored by programmes at national and subnational levels.
- Drugs in stock and in the pipeline should also be reported in the joint application package (JAP).
- Programmes should establish internal data submission deadlines prior to 15 August to improve timeliness and completeness of JAP; community-level data should be submitted within 1 week of treatment, and district-level data within 1 month.

2.2 The joint application package: A tool for programme managers for planning and reporting

The joint application package includes three main forms: the joint request for selected medicines (JRSM), the joint reporting form (JRF) and the epidemiological data reporting form (EPIRF). A fourth form, the annual workplan, is optional.
The JRSM can be used to apply for albendazole for lymphatic filariasis and soil-transmitted helminthiasis, mebendazole for soil-transmitted helminthiasis. Diethylcarbamazine for lymphatic filariasis, praziquantel for schistosomiasis, and ivermectin for lymphatic filariasis and onchocerciasis. WHO manages donation of all medicines except ivermectin, which is managed by the Mectizan Donation Programme.

Submission deadline is 8 months prior to planned date of treatment, or 15 August (at latest). By that date, countries should submit the JRF for the year before and the JRSM for next year (e.g. by 15 August 2015, the JRF for 2014 and the JRSM for 2016). However, requests are accepted all year round to facilitate country-level planning process.

### 2.3 Quality and safety of medicines

Anthelminthic medicines available in the markets of countries endemic for neglected tropical diseases are often of sub-standard quality. A survey implemented in 2010 in selected countries in South-East Asia and Africa found out that 56% of the samples failed to comply with recognized pharmacopeia criteria. Sampled medicines included albendazole, diethylcarbamazine, ivermectin, mebendazole and praziquantel. Countries are therefore encouraged to apply to WHO for donated medicines. Should countries prefer to procure medicines, they are invited to do it through WHO or UN system agencies, or ensure that the medicines they buy meet at least one of the following standards: 1) finished pharmaceutical product (FPP) is authorized for use by a Stringent Drug Regulatory Authority; 2) FPP is prequalified by the WHO prequalification programme; 3) based on time-limited advice by a WHO expert review panel.

In 2011, WHO developed a manual, *Assuring safety of preventive chemotherapy interventions for the control of neglected tropical diseases – Practical advice for national programme managers on the prevention, detection and management of serious adverse events* ([http://apps.who.int/iris/bitstream/10665/44683/1/9789241502191_eng.pdf](http://apps.who.int/iris/bitstream/10665/44683/1/9789241502191_eng.pdf)). Countries are invited to note this document and ensure that pharmacovigilance is in place when preventive chemotherapy interventions are implemented so that serious adverse events can be detected, managed and reported. Programme managers should establish contacts with national pharmacovigilance authorities and involve them in the planning and execution of preventive chemotherapy interventions. Serious adverse events should be reported by national pharmacovigilance authorities, through their institutional channels, to the WHO Collaborating Centre for International Drug Monitoring in Uppsala, Sweden.

### 2.4 Neglected tropical disease elimination programmes: some technical updates

The Neglected Tropical Disease Roadmap assigns different programmatic goals to the efforts implemented to reduce the burden of these diseases. With regard to preventive chemotherapy, these include control, elimination as a public health problem and elimination.

“Control” is defined as the reduction of disease incidence, prevalence, morbidity or mortality to a locally “acceptable” level as a result of deliberate efforts; sustained prevention and treatment interventions are required to maintain achievements.
“Elimination” (elimination of transmission) is the reduction to zero of the incidence of infection in a defined geographical area as a result of deliberate efforts. The process of documenting elimination of transmission is called “verification”. “Elimination as a public health problem” is a term related to both infection and disease. It is defined by achievement of measurable global targets set by WHO in relation to a specific disease. When reached, continued actions are required to maintain the targets and/or to advance the interruption of transmission. The process of documenting elimination as a public health problem is called “validation”.

Determining programme endpoints and establishing post-intervention surveillance are crucial for verification of elimination or validation of elimination as a public health problem. Transmission assessment surveys are required to decide when interventions should stop and post-intervention surveillance should start, as well as to confirm that verification or validation criteria are met in absence of interventions during post-intervention surveillance. Sensitive and specific test are required to monitor transmission and document its decrease or interruption.

A verification process is in place for onchocerciasis. Verification or validation processes are being established by WHO for the remaining diseases. In order to be ready for verification or validation, countries should start compiling dossiers. Dossiers are documents that include all the relevant information on epidemiology of disease as well as interventions implemented to tackle such disease and that, once finalized, can be submitted to WHO to start the process.

2.5 Partners’ presentations

The Mectizan Donation Programme (MDP), the Schistosomiasis Control Initiative (SCI) at Imperial College London and the END Fund presented an outline of their mission and of the activities they support in countries.

The MDP (http://www.mectizan.org/) was established in 1987 to donate ivermectin (Mectizan) for control and elimination of onchocerciasis; in 1998 the donation was expanded to target all lymphatic filariasis-endemic countries where onchocerciasis is also prevalent. Countries can apply for ivermectin by submitting the JRSM jointly to WHO and MDP. Considering that the current production line of Mectizan is reaching its limit, forecasting and communicating drug needs well in advance is crucial.

The SCI (http://www3.imperial.ac.uk/schisto) is located within Imperial College London and is dedicated to providing technical and financial support to country efforts to tackle the burden of neglected tropical diseases, notably schistosomiasis. The SCI is currently supporting two countries in the Region, Yemen and Sudan. In Yemen the SCI focuses on the monitoring and evaluation component of the Yemen Schistosomiasis Project that is supported by a major World Bank grant. In Sudan, the SCI facilitates planning of disease control activities, and provides technical and financial support to the Federal Ministry of Health on implementation of preventive chemotherapy interventions against schistosomiasis and soil-transmitted helminth infections, and on evaluation of their impact. In both countries work is done in close collaboration with ministries of health.
The END Fund (http://www.end.org/) is a collaboration between philanthropists coming together to form a private initiative aimed at tackling neglected tropical diseases. The END Fund mobilizes and directs resources to where they can have maximum impact, with a special emphasis on Africa. It advocates for innovative, integrated and cost-effective programmes and facilitates private sector engagement in the movement to address neglected tropical diseases. The END Fund is currently supporting two countries, Yemen and Sudan, through the SCI.

3. PROGRESS REVIEW AND THE WAY FORWARD: NATIONAL NEGLECTED TROPICAL DISEASE PROGRAMMES

3.1 UNRWA

The strategic objectives of UNRWA activities among Palestinian refugees are to ensure universal access to quality and comprehensive primary health care, maternal and child health and prevention and control diseases. Deworming is one of the major components of UNRWA’s school health programme since 1995; children enrolled in UNRWA schools and attending the first three grades (grade 1 through 3) are dewormed twice a year. In addition health awareness campaigns are regularly implemented in schools, focusing on personal hygiene. Deworming is implemented in each of UNRWA’s five fields of operation, namely Jordan, Lebanon, Syrian Arab Republic, West Bank and Gaza Strip.

In October 2010, the Dubai Cares Foundation, through the Sabin Vaccine Institute, provided a generous grant (US$ 109 247) to deworm 258 000 UNRWA schoolchildren in West Bank and Gaza for a period of three scholastic years (2011/2012, 2012/2013 and 2013/2014). The project was implemented by UNRWA health and education programmes by distributing a deworming dose (500 mg mebendazole) twice yearly to all UNRWA schoolchildren (grade 1 through 6; i.e. the target population was expanded). As to 2014/2015, the target population was again represented by children in grades 1 through 3: approximately 89 000 children were treated during round 1 and 80 000 during round 2. Treatment data from the remaining four fields were not presented.

The UNRWA plan of action for 2016 is to include pre-schoolchildren, women of childbearing age and adults in neglected remote areas among the targets of deworming. This should be supported by raising population awareness on soil-transmitted helminths through health education.

3.2 Sudan

In Sudan, the Federal Ministry of Health has been successful in gathering partners around neglected tropical diseases, and also in mobilizing domestic funds through the Ministry of Finance. Despite the increase in financial support, more efforts are needed to sustain control and elimination activities. A 5-year master plan for control/elimination of neglected tropical diseases and the relevant budget need to be finalized. Once the plan is completed, a stakeholders meeting should assess the gaps and mobilize resources towards its implementation.
Lymphatic filariasis mapping will be completed in Darfur states, in 85 implementation units (IUs) by the end of 2015. Although cards for the immunochromatographic card test (ICT) are already available in the country, funds are still lacking to complete mapping of lymphatic filariasis in areas (Blue Nile and 3 Kordofan States) not covered by the Global Trachoma Mapping Project (GTMP) or Schistosomiasis Control Initiative (SCI) (for schistosomiasis mapping). Morbidity management and disability prevention (MMDP) activities for lymphatic filariasis started in Khartoum and Gezira state, but still need to be strengthened and expanded to all other endemic states. It is planned to start mass drug administration for lymphatic filariasis in the fourth quarter of 2015 and scale up in 2016 (target population is 4.3 million). It is also planned to scale up MMDP activities to all relevant states.

The onchocerciasis elimination programme in Sudan targets 4 identified foci of transmission. In the Abu Hamad focus (River Nile state) the last round of biannual mass drug administration with ivermectin (Mectizan) was administered in 2011 and post-treatment surveillance was completed in 2014, showing interruption of transmission of O. volvulus even in absence of control interventions. In October 2015, the Ministry of Health has therefore declared elimination of onchocerciasis in such focus. The Galabat focus (Gadarif state) and the adjacent sub-focus of El Goraisha were also targeted by mass drug administration twice a year until March 2015, and are currently undergoing epidemiological assessments (including xenomonitoring) to find out whether transmission of O. volvulus has also been achieved there, meaning that treatment could be stopped and post-treatment surveillance initiated. The third endemic focus (Radom in Southern Darfur state) is targeted by mass drug administration once a year, even though, because of insecurity, treatment activities should be improved. In the fourth known focus, Khor Yabus/Ghoriabus (Blue Nile state), no mass drug administration is ongoing because of poor security. Cross-border activities for lymphatic filariasis and onchocerciasis need to be strengthened in coordination with the health authorities of Ethiopia and South Sudan. The issue of hard-to-reach areas also needs to be addressed.

With regard to schistosomiasis elimination activities in Sudan, more than 4.2 million people were treated with praziquantel in 2015 (from 200 546 in 2014), representing approximately 30% of the total population requiring preventive chemotherapy. This was supplemented with snail control in selected localities. A nationwide prevalence survey for schistosomiasis and soil-transmitted helminthiasis will be implemented in all states of Sudan in 2016 with financial support from Korea International Cooperation Agency (KOICA); Kato-Katz kits (21 600 samples) will be provided by WHO. 18 million tablets of praziquantel have been requested from WHO for treatment of over 7 million school age children. Treatment will be supported with governmental funds, by SCI and by KOICA (in White Nile State only). Impact evaluation surveys will be supported by SCI and WHO.

For soil-transmitted helminthiasis, in 2015 school-based deworming treated approximately 2 million school age children in various states (in 2014 it was only implemented in Khartoum state). Plan for 2016 is to complete mapping for soil-transmitted helminths in all endemic areas with financial support from KOICA and to scale-up treatment. It is expected that over 10 million doses of albendazole will be distributed in 2016, of which 4 million through mass drug administration for lymphatic filariasis and 6 million through
deworming for soil-transmitted helminths. Preschool-age children are currently not targeted by any deworming intervention in Sudan.

Trachoma mapping has almost been completed, with the exception of some localities in Darfur, because of poor accessibility and limited resources. Mass drug administration with azithromycin is implemented in all eligible implementation units except in Darfur and Blue Nile states for the same reasons; in 2015, over 1.1 million individuals were treated compared to 970 000 in 2014. A shortage of tetracycline eye ointment has affected treatment coverage among the youngest age groups. The backlog of trachoma trichiasis (TT) surgeries is estimated at 50 000, of which 18 000 are in the 5 Darfur states and 30 000 in the rest of the country. In 2014, 3295 surgeries were carried out in Sudan, and 1329 in the first 6 months of 2015. A shortage of surgery kits has been noted. Surveys in 2015 showed a high recurrence rate of TT surgery (among the ages of 15 years and above) in Gedarif state. 87.5% of the localities report implementing the full SAFE strategy, however gaps do exist, especially with regard to the F and E components, and notably in the 5 Darfur states and in Khartoum state.

### 3.3 Afghanistan

Available studies show that soil-transmitted helminths are responsible for health and nutritional problems in Afghanistan, where pre-school age children and school age children are mostly affected. Poverty, low level of education, poor hygiene, sanitation and access to safe water are the underlying causes. Ministry of Public Health and partners have targeted children for deworming through two programmes. Pre-school age children (less than 5 years of age) are supported by the Ministry and UNICEF, and school age children by the Ministries of Public Health and of Education, WFP and WHO. Pre-school age children are regularly treated every year. With regard to school age children, in 2013 over 6.5 million children were covered (primary and secondary grades children in 12 796 governmental schools) throughout the country. No treatment took place in 2014 and 2015. Major challenges facing deworming activities are: lack of accessibility to some schools due to insecurity and geography, limited capacities in planning, implementing and reporting data, and insufficient resources. In 2016, around 7.5 million school age children will be targeted with mebendazole and a prevalence survey will be implemented. Medicines will be donated through WHO. Clear responsibilities have been assigned to each partner (Ministry of Public Health for operations and implementation, WFP for financial support, and WHO for medicines and technical support), and a joint action plan between the Ministry of Public Health and Ministry of Education has been developed. It is expected that deworming activities will be regularly implemented from 2016 onwards.

### 3.4 Egypt

Egypt has now stopped mass drug administration activities for lymphatic filariasis and is expected to start compiling the elimination dossier shortly. During 2014–2015, the first transmission assessment survey (TAS1) was implemented in 29 IUs and TAS-3 in another 148 IUs. The last TAS will be implemented in one EU comprising the 29 IUs by the end of 2016. MMDP activities are still week and need to be strengthened in all endemic areas, as MMDP data are expected to be included the elimination dossier. The strategy of the national
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Schistosomiasis control programme in Egypt currently relies on a combination of selective treatment and mass chemotherapy. While selective chemotherapy is directed towards treating all diagnosed positive subjects, schoolchildren and at-risk populations in rural areas are given mass drug administration if school-level and village-level prevalence is equal to or exceeds 2% and 3%, respectively. Complementary public health interventions including snail control, health education and social mobilization, and environmental improvement are mainly implemented in the most affected foci. Currently, the most endemic areas are of low prevalence and intensity. Thus the Ministry of Health and Population is planning to accelerate efforts towards elimination (interruption of transmission) and has developed a 6-year plan in this regard. Funds are being sought for its implementation. In the meanwhile, the programme is aiming to shift gradually from the intervention phase to post-intervention surveillance in all areas where interruption of schistosomiasis transmission has been documented. As such, with support from WHO, the Ministry of Health and Population will assess transmission with more sensitive tools in the course of 2016, so as to exclude such areas from interventions. With regard to soil-transmitted helminthiasis, the Ministry of Health and Population is targeting 6-year-old children (grade 1) in all governorates (approximately 2 million children) in November 2015. There are governmental commitments to provide medicines free of charge (praziquantel for schistosomiasis and albendazole for soil-transmitted helminth infections) and niclosamide for snail control. Financial support is needed to achieve elimination of schistosomiasis and deworming activities.

3.5 Yemen

No national delegates attended the meeting. However, country presentations were prepared by different programme managers and shared with WHO. They were presented by Dr Ahmed Al-Soofi (WHO Yemen).

Activities of programmes for control and elimination of neglected tropical diseases in Yemen are challenged by the current crisis and unstable situation in the country. Such a situation has resulted in limited availability of resources, loss of experienced staff and destruction of the health system. Regarding lymphatic filariasis, the last TAS will be implemented in two evaluation units (EUs), one EU in Socotra by end of 2015 and the second in mainland Yemen in early 2016, with support from WHO. MMDP activities, integrated with the leprosy programme, are maintained but need to be evaluated. Onchocerciasis is endemic in westward-flowing valleys in mountainous areas of western Yemen. In the past, ivermectin (Mectizan) treatment, although not distributed in mass, had a significant impact in decreasing the prevalence of clinical cases in major endemic valleys. The Ministry of Public Health and Population is aiming for onchocerciasis elimination. A pilot survey to validate the use of a new serological test (Ov-16 test) as a mapping tool was conducted in early 2015. The Ministry and disease experts should now develop a mapping protocol, while funds for disease mapping have already been secured by END Fund through SCI. Once mapping is completed, mass drug administration (twice yearly) will be implemented, supplemented with integrated vector management wherever appropriate. Yemen launched a national schistosomiasis and soil-transmitted helminth control programme in 2010. The programme is run by the Ministry of Public Health and Population, funded by the World Bank and the SCI, in partnership with WHO. In 2014, over 7.3 million people received treatments with praziquantel + albendazole...
in two campaigns (coverage 84% in school age children and 80% in total). A cohort/cross-sectional study supported by SCI indicated that the prevalence of schistosomiasis has decreased from 16.7% (2010) to 7.5% (2014). Schistosomiasis treatment interventions need to be resumed and sustained towards elimination by ensuring continuous flow of funds. Discussions are ongoing between the Ministry, World Bank and WHO to ensure that treatment activities restart before the end of the current World Bank’s grant (30 June 2016), and to continue support beyond 2016. Extension of deworming activities for soil-transmitted helminths in non-schistosomiasis endemic areas still needs to be considered.

3.6 Somalia, Pakistan and Djibouti

These three countries were not represented by any delegates. A brief presentation on the available information regarding activities to control/eliminate neglected tropical diseases was given by the WHO Secretariat.

Somalia

In Somalia, a neglected tropical disease programme was established recently within the Federal Ministry of Health. In this regard, plans in Somalia (2015–2016) will include mapping of lymphatic filariasis, schistosomiasis and soil-transmitted helminthiasis (US$ 69,600 was secured from WHO/AFRO) and leprosy elimination activities (US$ 49,445 were secured from the Global Leprosy Programme).

Pakistan

Pakistan has the tenth largest burden of soil-transmitted helminthiasis in the world. Approximately 9 million pre-school and 21 million school age children are in need of deworming. Although 6–8 million pre-school age children (24–59 months) are dewormed every year with mebendazole (according to UNICEF reports), no deworming activities are ongoing for school age children. WHO Pakistan is in the process of developing a human resources plan that will include the designation of a focal point. Regarding trachoma, mapping is ongoing and mass drug administration with azithromycin in endemic districts is expected to start in 2016.

Djibouti

In collaboration with WHO, the Ministry of Health of Djibouti has developed a 2016–2017 workplan that includes burden assessment and control/elimination of lymphatic filariasis, schistosomiasis, soil-transmitted helminths and trachoma. Such activities will include: assessment of lymphatic filariasis endemicity, reassessment of schistosomiasis endemicity to confirm absence of transmission and compile elimination dossier. Scale-up of deworming in pre-school and school age children will also be included. Reassessment of the trachoma situation will be sought as well. As a support, WHO has allocated US$ 39,100 in the workplan.
4. ACTION POINTS

UNRWA

- Strengthen cooperation between UNRWA and Ministries of Health of host countries to ensure implementation of UNRWA’s soil-transmitted helminth deworming policies.
- Consider inclusion of pre-school-age children (3–5 years old) and Grade 4–6 schoolchildren in the target population of soil-transmitted helminth deworming interventions. When younger children are targeted, best safety practices should be implemented.
- Raise awareness on soil-transmitted helminths through distribution of health education material.
- Strengthen community outreach for vulnerable and marginalized groups that could benefit from UNRWA services.

Sudan

- Finalize the 5-year neglected tropical disease master plan and the relevant budget, assess the gaps and mobilize resources towards its implementation through a stakeholders meeting.
- Implement triple drug administration (3DA, ivermectin + albendazole + praziquantel) in all co-endemic areas that have received at least one round of treatment with praziquantel.
- Continue to explore possibilities for domestic funding (Federal Ministry of Finance, private and public donors). The current agreement on matching resources made available by partners with an equal amount by the Federal Ministry of Finance should continue and be expanded.
- Develop strategies to ensure that interventions for all relevant diseases are implemented in “closed areas” (i.e. areas with difficult access because of poor security such as Khor Yabus in Blue Nile), as well as in refugee camps.
- Before implementation of preventive chemotherapy, build capacities among all concerned staff, including on monitoring and evaluation.
- Ensure that best practices in drug administration are applied, especially with regard to treatment of young children, most notably crushing of tablets.
- Strengthen collaboration with Ethiopia and South Sudan for all aspects of neglected tropical disease programmes, especially with regard to cross-border foci of diseases under elimination (lymphatic filariasis, onchocerciasis and trachoma).
- Promote inclusion of Guinea-worm disease surveillance during mapping and other surveys or interventions.

Lymphatic filariasis

- Continue mapping in Darfur with already-secured funds; additional funds should be mobilized to complete mapping in Blue Nile and 3 Kordofan states by February 2016, considering that ICT cards are already available in the country.
- Scale up MMDP beyond Khartoum and Gezira States.
- Scale up mass drug administration in all endemic areas.
**Onchocerciasis**

- Ensure that an onchocerciasis elimination plan is developed and included in the national neglected tropical disease master plan, including delineation of transmission zones.
- Complete assessment of epidemiology of onchocerciasis in Ghalabat focus (Gadarif state) by February 2016.
- Strengthen collaboration with emergency operations to ensure access to Radom focus (Southern Darfour) and Khor Yabus focus (Blue Nile) and implementation of elimination interventions.
- Ensure that monitoring and evaluation data are compiled in view of the development of the elimination dossier.

**Schistosomiasis**

- Finalize mapping protocol and complete mapping for schistosomiasis in all endemic areas by end 2016, with financial support from KOICA.
- Finalize impact evaluation protocol by end 2015 and ensure that impact evaluation is conducted after mapping, by end 2016, with financial support from END Fund through SCI, and from WHO.
- Use the existing schistosomiasis platform to expand all other neglected tropical disease/preventive chemotherapy interventions throughout Sudan.
- Ensure coordination with Federal Ministry of Education regarding distribution and usage of the WHO schistosomiasis information, education and communication booklets.

**Soil-transmitted helminths**

- Finalize mapping protocol and complete mapping for soil-transmitted helminthiasis in all endemic areas by end 2016, with financial support from KOICA.
- Scale up coverage of soil-transmitted helminth deworming, by adding community delivery channel to school delivery channel.
- Consider restarting of mass distribution of albendazole/mebendazole to pre-school age children; ensure that the best practices for treatment of young children are followed.

**Trachoma**

- Continue mass drug administration in Blue Nile State, where activities had to be interrupted because of poor security (mass drug administration is regularly implemented in all other eligible implementation units).
- Secure funds to implement SAFE strategies in the recently-mapped 5 Darfur and Khartoum states.
- Avail TT surgery kits to cover all implementation units.
- Advocate with WHO/Sudan for provision of tetracycline eye ointment.
- Pilot integration of primary eye care into primary health care.
Afghanistan

- Expand deworming for soil-transmitted helminths to all schools including private, religious and informal schools.
- Ensure that school-age children not attending school are covered through community health workers.
- Develop a protocol for impact assessment, and implement the survey by end 2016.
- Finalize the 5-year national strategic and operational plan for deworming.
- Ensure high-level commitment to deworming within the Ministry of Public Health, Ministry of Education and partners, including financial support for operational costs. WFP support in this regard is highly appreciated and its continuation would be crucial for sustainability of the programme.

Egypt

- Finalize and submit the request for medicines for 2016 (JRSM) and the epidemiological data reporting form (EPIRF).

Lymphatic filariasis

- Continue compilation of the elimination dossier in view of the expected completion of PTS in all EUs by end 2016.
- Scale up morbidity management and disability prevention (MMDP) activities in all endemic areas, considering that this component will be part of the elimination dossier.
- Submit a request for 2000 filariasis test strips (FTS) at least three months before the survey.

Schistosomiasis

- Assess transmission of S. mansoni in selected governorates by CCA surveys.
- Maintain high-level advocacy with World Bank and other potential partners, as well as with the Ministry, to ensure commitment for elimination of schistosomiasis in the country.
- Ensure updating the national schistosomiasis elimination plan and the relevant budget.

Soil-transmitted helminths

- Assess the performance of the first round of school deworming planned for November 2015 (coverage, safety, reporting).
- Ensure that impact evaluation, where relevant, makes use of the lymphatic filariasis TAS platform.
Yemen

*Lymphatic filariasis*

- Ensure implementation of TAS-3 in Socotra EU by end of 2015; ensure timely order and delivery of 3600 FTS (for Socotra and mainland EUs) by WHO; ensure that necessary funds (US$ 8000) are timely disbursed by WHO Yemen.
- Maintain MMDP activities throughout the country.
- Start compiling the dossier for validation of elimination of lymphatic filariasis as a public health problem.

*Onchocerciasis*

- Ensure that the results of the pilot survey to validate use of Ov-16 in Yemen are shared with WHO.
- WHO to facilitate collaboration between the Ministry of Public Health and Population and partners towards the development of a protocol for mapping onchocerciasis by Ov-16; protocol should be developed by end 2015; mapping funds have already been secured by END Fund through SCI; field activities (mapping followed by mass drug administration) should start as soon as security conditions permit.

*Schistosomiasis*

- Ensure availability of financial support from partners so as to resume treatment interventions as soon as security conditions permit.
- Coordinate stakeholders towards the development of a sustainability plan to ensure that impact achievements are maintained after the end of the project in June 2016.

*Soil-transmitted helminths*

- Should any need for albendazole for 2016 arise, submit the relevant request (JRSM) to WHO as soon as possible.
- Explore opportunities to resume school-based deworming for soil-transmitted helminths in areas not endemic for schistosomiasis.

Somalia

- WHO/EMRO to follow up with WHO/AFRO to ensure that mapping funds are released to initiate and complete mapping of lymphatic filariasis, schistosomiasis and soil-transmitted helminthiasis in Somalia.
- WHO to support the Ministry of Health to ensure that funds are mobilized for implementation of preventive chemotherapy interventions upon completion of mapping.
- WHO to follow up with the Ministry to ensure planning of neglected tropical disease activities in 2015 and 2016.
Pakistan

- Ensure that a focal point for soil-transmitted helminthiasis is appointed within WHO Pakistan.
- Once a focal point is appointed, the Regional Office to ensure the planning and implementation of neglected tropical disease interventions, including soil-transmitted helminthiasis and trachoma.

Djibouti

- WHO to follow up on the appointment of a focal point within the Ministry of Health, and on planning and implementation of neglected tropical disease control activities.

General actions for all countries and partners

- Ensure that neglected tropical disease operational research needs are adequately addressed (e.g. molecular xenomonitoring for lymphatic filariasis, onchocerciasis and schistosomiasis).
- Strengthen capacities on lymphatic filariasis MMDP, through training.
Annex 1

PROGRAMME

Monday, 12 October 2015
08:30–09:00 Registration
09:00–09:30 Opening session
   Welcome note
   Objectives of the meeting
   Adoption of the programme and introduction of participants
   Dr H. Atta, A/DCD
   Dr A. Gabrielli
   Dr R. Ben-Ismael
   Dr R. Ramzy
10:00–10:30 Progress towards the WHO NTD Roadmap: preventive chemotherapy
   Dr G. Biswas
10:30–11:00 Joint application package for NTDs: A tool for NTD programme managers for planning and reporting
   Dr G. Biswas
11:00–11:30 Quality and safety of NTD medicines
   Ms A. Baghaki
11:30–12:00 NTD technical updates
   Dr R. Ramzy
12:00–12:10 Mectizan Donation Programme
   Dr Y. Sodahlon
12:10–12:20 Schistosomiasis Control Initiative
   Dr D. Annuzaili
12:20–12:30 The END Fund
   Dr W. Lancaster
13:30–14:30 Presentation: UNRWA
   UNRWA representative
14:30–16:00 Country presentation: Sudan

Tuesday, 13 October 2015
09:00–10:00 Country presentation: Afghanistan
10:30–11:30 Country presentation: Egypt
11:30–12:30 Country presentation: Yemen
13:30–14:30 Country presentation: Somalia
15:00–15:30 Country presentation: Pakistan
15:30–16:00 Country presentation: Djibouti

Wednesday, 14 October 2014
09:00–10:30 Review and approval of outstanding country requests for selected preventive chemotherapy medicines for 2015
   Dr R. Ramzy
11:00–13:00 Review and agreement on action plans for 2016
   All
13:00–14:00 Conclusion and recommendations
   Dr R. Ramzy, Dr H. Helmy
14:00 Closing session
Annex 2

LIST OF PARTICIPANTS

AFGHANISTAN
Dr Alawi Sayed Ali Shah
Head, Child and Adolescent Health Department
Ministry of Public Health
Kabul

EGYPT
Dr Ayat Atef Haggag
Undersecretary of Endemic Diseases
Ministry of Health and Population
Cairo

Dr Mohamed Atef Hassan El-Sayed
Director General of Malaria, Filariasis, Schistosomiasis & Internal Parasites
Ministry of Health and Population
Cairo

SUDAN
Dr Mousab Siddig Elhag
Neglected Tropical Diseases Coordinator
Federal Ministry of Health
Khartoum

Dr Belghis Elkheir Alshafie
Coordinator for Trachoma Control Programme
Federal Ministry of Health
Khartoum

Dr Asam Mohamed Ali Zroug
National Coordinator
Onchocerciasis Control Programme
Federal Ministry of Health
Khartoum

OTHER ORGANIZATIONS

MECTIZAN DONATION PROGRAMME
Dr Yao Sodahlon
Associate Director
Lymphatic Filariasis Elimination
Decatur, Georgia
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UNITED NATIONS RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST (UNRWA)
Dr Adnan Saad
Field Disease Control Officer
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Damascus
SYRIAN ARAB REPUBLIC

Dr Isa Mohammad Isa Saleh
Field Disease and Control Officer
Gaza
PALESTINE

WORLD FOOD PROGRAMME
Mr Ezzatullah Saeedi
Programme Officer/Focal Point for Deworming
Kabul
AFGHANISTAN

END FUND
Mr Warren Lancaster
Director of Programmes, END Fund
New York
UNITED STATES OF AMERICA

SCHISTOSOMIASIS CONTROL INITIATIVE
Dr Dhehra Annuzaili
Programme Manager for Yemen and Sudan
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WHO TEMPORARY ADVISERS

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Dr Hanan Helmy  
Associate Professor  
Research & Training Center on Vectors of Disease  
Ain Shams University  
Cairo  
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WHO SECRETARIAT

Dr Hoda Atta, Acting Director, Department of Communicable Disease Prevention and Control, WHO Regional Office for the Eastern Mediterranean
Dr Albis Gabrielli, Regional Adviser, Neglected Tropical Diseases, Department of Communicable Disease Prevention and Control, WHO Regional Office for the Eastern Mediterranean
Dr Gautam Biswas, Coordinator, Neglected Tropical Diseases, WHO headquarters
Dr Azadeh Baghaki, Technical Officer, Neglected Tropical Diseases, WHO headquarters
Dr Naimullah Safi, National Professional Officer, WHO Afghanistan
Dr Rehab Abdelhai, National Professional Officer, WHO Egypt
Dr Khalid El Tahir, Medical Officer, WHO Sudan
Dr Ahmed Al-Soofi, Technical Officer, WHO Yemen
Mr Mohamed Abdel Mohsen, IT Assistant, WHO Regional Office for the Eastern Mediterranean
Mrs Abeer El Telmissany, Programme Assistant, Department of Communicable Disease Prevention and Control, WHO Regional Office for the Eastern Mediterranean