

Report of the WHO Strategic and Technical Advisory Group for Neglected Tropical Diseases

Salle D, WHO headquarters, Geneva, Switzerland 21 - 22 April 2015

The eighth meeting of the Strategic and Technical Advisory Group for Neglected Tropical Diseases (STAG-NTD) was held at the headquarters of the World Health Organization (WHO) in Geneva, Switzerland, on 21-22 April 2015. The list of participating members, observers and secretariat is attached as **Annex 1**.

Day 1

Welcome and introduction

Dr Dirk Engels, Director, WHO's Department of Control of Neglected Tropical Diseases, opened the meeting on behalf of Dr Hiroki Nakatani, WHO's Assistant Director-General for HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases (WHO/HTM-NTD), who was away on duty travel. He welcomed all STAG members and other participants on behalf of the Department, and informed the participants that Dr Nakatani will retire at the end of May 2015, after the 68th World Health Assembly. The Chairman, Professor Peter Holmes, also welcomed the members of STAG and noted the four STAG members who could not be present. At the Chairman's request, all those present introduced themselves.

1. Report from NTD Director on status, progress and challenges with NTD control

Dr Dirk Engels (Director / NTD) presented his report on the last year. The highlights included:

- Launch of the 3rd WHO Report on NTDs, entitled *Investing to overcome the global impact of neglected tropical diseases*. The launch took place simultaneously in London and Addis Ababa in February 2015. The event in London was well attended and given wide publicity in the press and social media. Key messages include focus on health economics and financing against a background of equitable Universal Health Coverage with essential health interventions. The report sets out for the first time targets for investment for the control and elimination of NTDs. Investment needs are identified as USD 750 million annually for 2015-2020, without vector control; and USD 2.9 billion annually, with vector control. There is need for additional domestic investment and exploration of innovative financial mechanisms as means to finance NTD programmes
- Establishment of the Investment for Impact Working Group
- Eradication of guinea worm: only 126 cases of guinea worm were reported in 2014, and this
 is the lowest ever reported, but challenges remain, especially with regard to increasing cases
 of infection in dogs in Chad. WHO will continue to work with The Carter Centre, supported
 by the Bill & Melinda Gates Foundation, on the eradication effort in the four endemic
 countries.
- Preventive Chemotherapy

- Data on preventive chemotherapy in 2013: a total of 784.6 million people were treated; coverage of people requiring treatment was 43.3%. There was a substantial increase in the number of pre-school aged children who were treated for STH. The number of tablets donated to control programmes through WHO has consistently increased by about 20% a year since 2012, but projections show that the current trajectory in increase in PC is not high enough to reach the global targets for 2020
- Onchocerciasis: there has been good progress towards elimination in Latin America. APOC will be wound up by December 2015, and a new entity will replace it to pursue the goal of elimination with interruption of transmission in perspective of wider PCT NTD intervetions.
- Trachoma: the Global Trachoma Mapping Project has made impressive progress,
 51.8 million have received treatment with azithromycin in 2014 with another 10 million to be reported on from Ethiopia.
- Several challenges remain in relation to normative guidance for preventive chemotherapy, especially in reaching all target populations (risk-benefit for women of child-bearing age and very young children, information on off-label use, improved data collection and new registration); improved formulations, including paediatric; guidelines and tools for post-treatment surveillance (PTS); optimal size of the evaluation unit (EU) for LF transmission assessment survey (TAS); semi-annual MDA to hasten elimination of lymphatic filariasis and onchocerciasis; and there is need to clarify/harmonize PC guidelines (SCH and STH)

• Intensified Disease Management

- Human African trypanosomiasis: the number of cases has declined steadily and less than 4000 cases were reported in 2014. HAT is on track for elimination as indicated in the NTD Roadmap
- o Buruli ulcer: the 2015 target in the NTD Roadmap will be met; the clinical trial of oral antibiotic therapy is expected to be completed in 2016.
- Chagas disease: a 'tricycle' strategy for interruption of transmission, providing care for affected people, and a surveillance / information system has been developed
- Visceral leishmaniasis: good progress has been made towards elimination in SE Asia, but burden remains unchanged or even increased in E Africa and Latin America
- Cutaneous leishmaniasis: Most cases are in the Middle East and adjacent regions; the case load remains relatively unchanged.
- Yaws: the study on the impact of one round of MDA with azithromycin has been published, but a drug donation has not yet been secured

Vector Ecology and Management

- Dengue and Chikungunya: a situation paper was discussed at the January Executive Board meeting and will be taken up at the WHA in May
- Innovation to Impact (I2I) in vector control: a strategic collaboration with the Bill and Melinda Gates Foundation

• Zoonotic Neglected Tropical Diseases

- The 4th NZD meeting was held in November 2014
- o The forthcoming activities will focus on the 4 zNTDs, starting with rabies

WASH / NTD global strategy

- o Collaboration with PHE
- o NTD as a tracer for equity in WASH

Dr Engels also presented the response of the Department to the points identified by STAG in 2014 for follow-up action by WHO. Most of these points have been acted upon, but it has not been possible to implement a few. He noted that the anticipated challenges during the coming year include a new funding proposal to complete guinea worm eradication; completion of the framework

necessary to give guidance to WHO in acknowledging elimination; timely reporting of PC data; work on yaws, vector control, zNTDs, chagas, and enhanced access to medicines for CL.

Finally, Dr Engels summarized the NTD related activities scheduled to take place at the forthcoming World Health Assembly. These include a review of a situation paper on dengue; a progress report on dracunculiasis, pursuant to WHA64.16; a progress report on schistosomiasis, pursuant to WHA 65.21; progress towards elimination and eradication of Neglected Tropical Diseases, pursuant to WHA 66.1; and an informal meeting on guinea worm eradication.

2. Presentation of a generic framework for the processes and principles for confirming elimination of NTDs

Dr Francesco Rio presented a working paper on *Processes and principles for validating elimination and certification of disease eradication*. This paper was prepared in consultation with NTD Focal Points and circulated for comments within the Department. The final draft was sent out to STAG members and Regional Offices prior to the meeting. A lengthy discussion regarding this issue was continued after the next session.

3. Discussion on criteria for certification and verification

3.1 The case for onchocerciasis and lymphatic filariasis

Dr Frank Richards reviewed discussions by STAG at previous meetings in 2013 and 2014 on the issue of elimination / eradication and the concepts and terminology used to date in relation to onchocerciasis and LF. He highlighted differences in the onchocerciasis elimination framework and LF elimination framework and the need for consistency in this regard.

3.2 The case for trachoma

Professor Sheila West reviewed the targets set out in the NTD Roadmap for elimination of blinding trachoma as a public health problem.

3.3 The case for HAT

Professor Peter Holmes reviewed the WHO targets for elimination of HAT and indicators for elimination and the progress and challenges to achieving this goal.

4. Finalization of the generic framework for confirming elimination

After much discussion, STAG recommended that WHO should adopt the working paper, subject to the following amendments:

- The document should be entitled 'A generic framework for the processes and principles for confirming elimination of NTDs'
- ii. The previous recommendation made by STAG regarding the definition of elimination is to be amended as follows.

- a. **Elimination with interruption of transmission** means reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical region with minimal risk of re-introduction, as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required.
- b. The term 'Elimination as a public health problem' is used in relation to achievement of measurable targets set by WHO in relation to a specific disease.
- iii. Inclusion of the role of a National Commission in endorsing the final dossier on elimination, prior to its submission to WHO
- iv. The term 'verification' will be used in relation to elimination with interruption of transmission of an organism, while the term 'validation' will be used in relation to elimination of a disease as a public health problem. The finalized document is attached as Annex 2.

5. Challenges in preparing guidelines and evidence for Guidelines Review Committee

Dr Susan Norris, Secretary to the WHO's Guidelines Review Committee, made a presentation regarding WHO Guidelines and the process to be following in developing a WHO Guideline, as well as the challenges that accompany this process.

6. Open discussion and Q&A on reports from the Working Groups

STAG members discussed the current challenges in implementing Preventive Chemotherapy

- Use of PC medicines in semi-annual MDA programmes where indicated, and the implications of adopting this
- Implementation Units for schistosomiasis and LF
- Definition of coverage for reporting data
- Prevalence thresholds for MDA
- Inclusion of pre-school aged children in MDA programmes and development of paediatric formulations for this purpose
- Advice to programme managers on treatment of pregnant women and lactating mothers
- Routine monitoring of anthelmintic efficacy

This was followed by brief reports from Professor David Molyneux, Chairman of the Working Group on Capacity Strengthening (full report attached as Annex 3); Dr John Gyapong, Acting Chairman of the Working Group on Monitoring and Evaluation (Annex 4); and Professor Nilanthi de Silva, Chairman of the Working Group on Access to Quality Assured Medicines for NTDs (Annex 5).

The **recommendations made to STAG** by these Working Groups are as follows:

Working Group on Capacity Strengthening

- 1. Use online platforms to increase accessibility of NTD training courses
- 2. Promote country to country collaboration to strengthen training capacities through intercountry support of trainers
- 3. Integrate diseases targeted for IDM as part of the efforts and tools for country capacity strengthening
- 4. Develop country capacities for compilation of dossiers to support the request of verification of elimination of NTDs, as well as the capacities at regional level to organize, fund and carry out missions of the international verification teams.

5. Develop country and regional capacities for estimation of domestic investments on NTD national and sub-national plans.

Working Group on Monitoring & Evaluation of Preventive Chemotherapy

LF-specific recommendations

- 1. Approve the Alere Filariasis Test Strip (FTS) for use in the GPELF as a diagnostic tool for *W. bancrofti* antigen, so that national programmes may replace the ICT with FTS in mapping, evaluation and TAS.
- Collecting baseline data in sentinel sites prior to MDA is recommended. Countries, may, however, substitute baseline data with microfilaraemia or antigenaemia data obtained from mapping surveys. Lack of baseline LF data from sentinel sites should not delay the start of MDA.
- 3. Districts identified as endemic during mapping surveys should start MDA. Where MDA was not started (due to perceived lack of supportive data), countries should start MDA or reevaluate endemicity using a more robust sampling methodology (i.e. decision-making prevalence survey based on equal probability sampling). These IUs should not be reclassified as non-endemic based only on data from sentinel sites or on additional data from spot-site checks.

Onchocerciasis-specific recommendations

4. To hasten elimination of onchocerciasis, where countries are committed and resources are available, programmes may implement semi-annual PC with ivermectin. Efforts should be made to evaluate and improve programme performance. Priority for semi-annual treatment should be given where epidemiological data is not on track to achieve elimination by the target date.

Schistosomiasis-specific recommendation

5. Based on a systematic review of the evidence, the Circulating Cathodic Antigen- Point of Care test (CCA POC) is approved for use in monitoring and evaluation of *S. mansoni* infection control and elimination programmes, including mapping and program evaluation. Countries are encouraged to consider using the CCA POC, particularly in areas of very low prevalence. Programme managers may continue the use of Kato-Katz, especially in areas of high prevalence and high intensity of infection.

National Programme-specific M&E needs recommendations

- 6. Programmes should implement Data Quality Assessments (DQA) as a systematic approach to objectively assess PC data quality. DQAs should be implemented at a minimum of once every 3-5 years, as part of Programme Evaluation. District NTD programme management teams should be enabled to conduct Rapid Coverage Assessments (RCA, within 2 weeks of MDAs) and Data quality self-assessments (DQS, annually) as part of in-process supportive supervision for PC data management in national programmes.
- 7. Applications for donation of PC medicines and treatment reports should be submitted to WHO in the recommended format (the Joint Application Package: JAP). Alternative formats are henceforth discouraged.
- 8. Countries should monitor drug usage and inventory at national and sub-national levels. Drugs remaining in stock and in the pipeline should also be reported in the JAP.
- 9. Countries should establish internal data submission deadlines prior to 15 August at national and sub-national level to improve timeliness and completeness of JAP. Villages should be encouraged to submit data within 1 week of MDA completion, and districts should submit data to the national level within one month of MDA completion.

- 10. Technical and operational support to improve data management and drug usage should be provided to the priority countries with:
 - a. high PC burden
 - b. poor reporting
 - c. poor management of donated medicines.

Working Group on Access to Quality Assured Medicines for NTDs

- 1. Continue with annual joint forecasting between all major interested parties for albendazole, mebendazole, DEC and praziquantel
- 2. Develop joint guidance on harmonized procurement practices for specific NTD medicines, to be adopted by all partners / donors
- 3. Identify countries and carry out drug quality surveys, building on the experience of past surveys, and organize regional meetings of drug regulators to follow up on the outcome of quality surveys
- 4. Intensify advocacy to increase the number of anthelmintic manufacturers applying for WHO pregualification
- 5. Support development of product profiles for paediatric formulation of NTD medicines, starting with praziquantel.
- 6. Review, and if necessary adapt, existing WHO guidance material on management of unusable medication and promote its use where required.
- 7. Further promote the existing WHO Pharmacovigilance Manual to all stakeholders; investigate the pharmacovigilance needs of priority countries and deliver appropriate capacity building support.

STAG noted and endorsed the recommendations of the Working Groups

Dav 2

The 2nd day of the meeting was open to partners in NTD Control and other invited stakeholders.

7. Summary of STAG key presentations and deliberations

The Chairman welcomed the observers and partners in NTD control to the 2nd day of the meeting. Dr Engels presented a brief update on progress achieved by the Dept during the past year. Prof Holmes summarized the discussions of the previous day on eradication and elimination. Prof de Silva summarized the main activities of the Working Group on Access to NTD Medicines and its recommendations to STAG; Prof John Gyapong summarized the main activities and recommendations of the Working Group on Monitoring and Evaluation; and Prof David Molyneux summarized the main activities and recommendations of the Working Group on Capacity Strengthening.

8. Progress towards dengue control

Dr Ron Rosenberg presented a report from the Working Group on Dengue. It included an update on WHO's global strategy for prevention and control of dengue 2012 – 2020, and an update on the global status with regard to dengue infections and deaths due to dengue. There has been considerable progress in estimating the burden of dengue. Pilot studies are being carried out in specific countries in the burden estimation project. There has also been progress in diagnostics for case management; but many challenges remain, especially with regard to ensuring quality of diagnostic kits. Clinical management and classification has also been reviewed but there has been reluctance in SE Asia in accepting redefinitions. Integrated surveillance is important but is not always possible. Outbreak response needs to take place very early in order to be effective in control.

Recommendations to STAG

- 1. WHO should lead improving and standardizing surveillance data globally, preparing for vaccines, novel tools and promote examples of regional successes
- 2. Research is needed to identify relevant vector indices for surveillance
- 3. Promote acceptance of SAGE recommendations
- 4. Urge countries to set up EQA programmes to assure the quality of the tests and encourage industry innovation, standardization
- 5. Establish laboratory networks
- 6. Harmonize case classifications encouraging universal acceptance
- 7. Test utility of outbreak response for dengue
- 8. Current and novel tools and strategies should be systematically evaluation against epidemiological outcomes and cost effectiveness
- 9. Encourage intersectoral collaboration among stakeholders
- 10. Promote concept: One Vector, Many Pathogens

STAG noted and endorsed these recommendations of the Working Group

9. Innovation to Impact (I2I) in Vector Control, including WHOPES

Dr Daniel Strickman presented an overview of this project which is funded by the Bill and Melinda Gates Foundation. The programme aims to resolve the current challenges by transforming the entire vector control ecosystem by fostering sustainable incentives. The vision for how to achieve the objectives has been developed through a series of meetings with over 80 stakeholders over the last 18 months.

Dr R Velayudhan spoke on changes envisioned at WHOPES to foster innovative products, efficient evaluation and high quality vector control tools. Four key objectives in the change plan support I2I. This will ultimately align the system for evaluation of pesticide products with WHO's system for prequalification of medicines and ensure effective, safe, high quality and innovative public health pesticides.

WHO commitment to transformation has unlocked change from other key stakeholders; however more ambition is expected from industry and procurers in going forward. WHO and BMGF will continue to collaborate closely to develop the grant proposal and solve strategic questions.

10. Report from the Vector Control Advisory Group (VCAG)

Dr Marc Coosemans presented a report on the 3rd meeting of the VCAG. He reviewed the terms of reference, definitions and epidemiological endpoints adopted by VCAG. VCAG considers new paradigms for community protection (e.g. Insecticide Treated Nets against resistant vector populations, Insecticide Treated walls against resistant vector populations), but not for personal protection. Draft conclusions by VCAG on new product prototypes are submitted for consideration by MPAC and WHOPES. New paradigms and prototype products considered by VCAG during the past year include: Long Lasting Insecticide Treated Nets for controlling insecticide resistant populations; Attract and kill baits; Reducing vector populations through genetic manipulation; Insecticide treated materials for specific risk groups; Microbial control of human pathogens in adult vectors using *Wolbachia*; Spatial repellents interrupting human-vector contact; Vector traps: In2Trap, Attractive Lethal OviTrap (A LOT), Lethal House Lures (eave tubes)

11. Urgent need for well-planned intensified and innovative vector control

Prof Janet Hemingway spoke on the overlap in the NTD and vector borne diseases landscape. She noted that the vector control intervention estimates in the 3rd NTD report are restricted to dengue, VL and Chagas. It is important to develop evidence-based guidelines on what vector control really works and evaluations should be carried out in a manner that enables analysis. She presented a case study of Indoor Residual Spraying (IRS) for Visceral Leishmaniasis in India and quality assurance of IRS in this programme, with emphasis on use of new tools to monitor efficacy.

12. Investing in NTDs

Professor Deborah McFarland and Mr Christopher Fitzpatrick presented the report from the Investment for Impact Working Group. Professor McFarland highlighted the context in which NTD control must be implemented. She noted that the Ebola epidemic highlighted the need for building strong, resilient health systems, and emphasized that this must be done while implementing NTD control strategies.

Mr Fitzpatrick highlighted the main messages in Chapter 2 of the 3rd report on NTDs. With economic development, the largest proportion of people requiring treatment for NTDs is now in lower-middle income countries. Meeting targets for NTD control / elimination / eradication will need increased investment from within affected countries. Investment targets have been presented for the period 2015 – 2020, including and excluding vector control for Chagas Disease and dengue. Investment targets begin to decrease after 2020, as population targets go from >1 billion to about 200 million by 2030. Domestic investment targets represent <1% of domestic spending on health. The WHO

response will assist in setting priorities, especially in the context of Sustainable Development Goals. The 2030 indicators for NTDs could include the number of people requiring interventions against NTDs. Innovative financing could include Payment by Results, including Results-Based Financing and Development Impact Bonds. These focus more on outcomes and impacts than on processes.

The Investment for Impact (IfI) Working Group, which was established after the call for nominations in January 2015, has three main subgroups: programming, financing and research. Programming subgroup activities include planning and budgeting, socioeconomic impact, economic evaluation, and innovative financing.

The Working Group requested STAG to

- 1. Continue support for inclusion of NTDs within SDG agenda, including UHC
- 2. Recommend better disaggregation of coverage data by sex, urban / rural and socioeconomic status for the purposes of UGH monitoring
- 3. General comments on planned activities of the IfI Working Group, especially any opportunities to mainstream economics / financing or impact evaluation work at country level

13. Zoonotic NTDs: from advocacy to action

Professor Eric Fevre and Dr Bernadette Abela-Ridder presented the report on the 4th meeting of the Working Group on zNTDs. Professor Eric Fèvre from the Institute of Infection and Global Health, University of Liverpool has accepted to chair the working group on zNTDs with the task to progress towards the NTD Roadmap and to focus, prioritize and align with other NTD and animal health/food safety programmes. The WG will advance on taeniasis control options, drafting a global framework for rabies elimination, a process for validation of elimination specifically for rabies in consultation with Animal health partners and possible options for a maintenance plan for rabies eliminations in countries and regions.

A call for nominations has been posted for this working group http://www.who.int/entity/neglected diseases/stag nzd call nominations/en/index.html

Several zoonotic diseases are included in the WHO NTD Roadmap and two in particular deserve special attention at this time. Rabies is a fatal disease and is estimated to kill 60k people per year. More than 95% is transmitted by dogs. With increased investment dog-transmitted rabies can be eliminated across the globe. Neurocysticercosis (pig tapeworm) is responsible for 30% of epilepsy in endemic countries and the burden can be substantially decreased by a series of interventions aimed at breaking the cycle of transmission. Control of this disease offers an opportunity to make a major contribution to improving mental health in endemic countries. It will be important to coordinate action, specifically with the animal health sector to attain the greatest and most sustainable results for these zoonotic diseases.

14. Open statements and general discussion

STAG received statements from the following partners

- Dr Neeraj Mistry, Managing Director, the Global Network for Neglected Tropical Diseases, suggested that global health security might be an issue that should be raised in relation to NTDs
- Drs Julie Jacobsen and Don Bundy from the Bill & Melinda Gates Foundation emphasized that the BMGF strongly endorses the recommendations of the M&E Working Group and the Investment for Impact Working Group. It was noted that the BMGF has carried out a review

- of its work in the area of neglected diseases, and it will focus on a smaller group of NTDs than in the past. The Chair wished to place on record the very significant support provided by the Foundation for NTD control activities and initiatives
- 3. Kim Koporc from Children Without Worms and the NTD NGD Network appreciated WHO for efforts to include WASH strategies

15. Conclusions and closure of the meeting

Recommendations to WHO

- STAG endorses the Working Paper on A generic framework for the processes and principles for confirming elimination of NTDs and recommends that disease specific protocols should be developed and endorsed by the M&E WG for submission of dossiers and appropriate post-elimination surveillance
- STAG appreciated progress towards guinea worm eradication but expressed concern regarding the risks that have been identified recently that may jeopardize the final effort towards eradication.
- STAG recommends that the training materials and courses developed during capacity building activities in the region should be made available online through the WHO website as soon as possible.
- STAG noted that there is an urgent need to ensure continuity of the achievements of APOC through establishment of a new entity
- STAG urges WHO to ensure that NTDs are included in the Sustainable Development Goals as indicators of equity in achievement of Universal Health Coverage and access to Water and Sanitation
- At the future STAG meetings, the Secretariat should provide all participants with one page statements on disease-specific progress, including morbidity management disability prevention (MMDP).

In his closing remarks, Dr Dirk Engels noted that during the next year, WHO will look at focusing on other agendas beyond preventive chemotherapy, such as vector control, investment and funding for NTD control and zNTDs. He thanked the outgoing Chairman Prof Peter Holmes, particularly for his role in the launch of the 3rd NTD Report in London in early 2015. Dr Engels announced that the new Chairman will be Professor Nilanthi de Silva. Finally, Prof Holmes thanked STAG members for all their support, and wished the NTD Department and the STAG success in their future endeavours.

Annex 1. List of participants

- Annex 2. A generic framework for the processes and principles for confirming elimination of NTDs
- Annex 3. Report of the Global Working Group Meeting on Capacity Strengthening for Control of Neglected Tropical Diseases
- Annex 4. Report of the 6th NTD-STAG Global Working Group meeting on Monitoring and Evaluation of Preventive Chemotherapy

- Annex 5. Report of the Working Group on Access to Quality Assured Medicines for Neglected Tropical Diseases
- Annex 6. Report of the Working Group on zNTDs



EIGHTH MEETING OF THE STRATEGIC AND TECHNICAL ADVISORY GROUP FOR NEGLECTED TROPICAL DISEASES

21–22 April 2015 *WHO/HQ*, *Salle D*

List of participants

MEMBERS

AL-KUHLANI, Dr Abdul Hakim (unable to attend)

Director-General of Disease Control and Surveillance, Ministry of Public Health and Population, Republic of Yemen

ASAOLU, Professor Samuel (unable to attend)

Professor in Parasitology, Department of Zoology, Obafemi Awolowo University, Ile-Ife, Nigeria

BE-NAZIR, Professor Ahmed

Former Director, Department of Microbiology, National Institue of Preventive and Social Medicine, Bangladesh, Ministry of Health and Welfare, Bangladesh

BOULOS, Professor Marcos

Professor of the Department of Infectious and Parasitic Diseases, School of Medicine, Sao Paulo University

CASTALIA, Dr Rosa

Ministry of Health, Brasilia, Brazil

CICOGNA, Dr Francesco

Senior Medical Officer, Directorate General for the European Union and International Relations, Ministry of Health of Italy

CLEAVELAND, Professor Sarah

Institute of Biodiversity, College of Medical, Veterinary and Life Sciences, University of Glasgow

DE SILVA, Professor Nilanthi

Dean and Professor of Parasitology and Dean, Faculty of Medicine, University of Kelaniya, Sri Lanka.

DHARIWAL, Dr A.C.

Director, National Vector Borne Disease Control Program, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India

EBERHARD, Dr Mark (unable to attend)

Guest Researcher, Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention, Atlanta, USA

FEVRE, Professor Eric

Chair of Veterinary Infectious Diseases: Kenya: International Livestock Research Institute | **UK**: Institute of Infection and Global Health, University of Liverpool

GOTUZZO, Dr Eduardo

Director, Instituto de Medicina Tropical, Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Peru

GUZMAN, Professor Maria G.

Director, PAHO/WHO Collaborating Center for the study of dengue and its vector, Institute of Tropical Medicine, Havana, Cuba

HOLMES, Professor Peter (Chair)

Former Vice Principal for Research and Territorial Vice-Principal for Biomedicine, University of Glasgow, Scotland, UK.

MALECELA, Dr Mwelecele Ntuli

Director of Research, National Institute for Medical Research, Dar es Salaam, Republic of Tanzania

MCFARLAND, Professor Deborah A.

Emory University, Rollins School of Public Health,

MOLYNEUX, Professor David

Liverpool School of Tropical Medicine, Liverpool, UK

MOORE, Dr Anne

Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

NG, Dr Ching Lee

Director, Environmental Health Institute, a national public health laboratory at the National Environment Agency, Singapore

RICHARDS, Dr Frank O. Jr

Director, River Blindness, Lymphatic Filariasis, Schistosomiasis & Malaria Programs The Carter Center, USA

ROSENBERG, Dr Ronald

Associate Director, National Center for Emerging & Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Colorado USA

TRAORE, Professor Mamadou Souncalo

Director of the National Institute for Research in Public Health and Professor of Epidemiology and Public Health, Bamako University, Mali

WEST, Professor Sheila

El-Maghraby Professor, Vice Chair for Research, Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore, USA

ZHOU, Dr Xiao-Nong (unable to attend)

Deputy Director, National Institute of Partasitic Disease, Chinese Center for Disease Control and Prevention, People's Republic of China

Presenters and Working Group Chairs

Professor Janet Hemingway

Director, Liverpool School of Tropical Medicine and Professor of Insect Molecular Biology

Chair of Working Group on Monitoring and Evaluation

Professor John Gyapong (representing Dr Samuel Zaramba)

Chair of Working Group for the integrated control of Neglected Zoonotic Diseases in the context of Veterinary Public Health

Professor Eric Fèvre

Chair of Working Group on Capacity Strengthening for Neglected Tropical Diseases Professor David Molyneux

Chair of Vector Control Advisory Group Meeting

Dr Marc Coosemans

Professor Deborah McFarland

Hubert Department of Global Health, Policy and Management, Rollins School of Public Health, Emory University

WHO Secretariat

- Dr H. Nakatani, ADG/HTM/HQ (unable to attend)
- Dr P. Alonso, Director, GMP/HQ (or representative)
- Dr K. Miyagishima, Director, FOS/HQ (represented by Dr Mumford)
- Dr M. Neira, Director, PHE (or representative)
- Dr J. Reeder, Director, TDR/HQ (represented by Dr D. Maher)
- Dr D. Engels, Director, NTD/HQ
- Dr B. Abela-Ridder, Team Leader, Zoonotic Neglected Diseases, NTD/HQ
- Dr G. Biswas, Coordinator, Preventive Chemotherapy and Transmission Control, NTD/HQ
- Dr D. Daumerie, Programme Manager, Strategy Development and Implementation Coordination, NTD/HQ
- Dr J. R. Franco Minguell, Coordinator, a.i. Innovative and Intensified Disease Management, NTD/HO
- Dr F. Rio, Team Leader, Capacity Building, NTD/HQ
- Dr D. Sankara, Team Leader a.i., Guinea Worm Eradication Programme
- Dr R. Velayudhan, Coordinator, Vector Ecology and Management, NTD/HQ
- Ms L. Aimé-McDonald, Assistant Ms C. Suchet, Programme Assistant, NTD/HQ
- Regional Focal Point, AFRO (unable to attend)
- AMRO Dr Steve Ault, Dr Luis Gerardo Castellanos, Dr Marcus Espinal
- EMRO Dr Ghasem Zamani (unable to attend)
- Regional Focal Point, EURO (unable to attend)
- Regional Focal Point, SEARO (unable to attend)
- WPRO Dr Padmasiri Eswara Aratchige

Generic framework for control, elimination and eradication of neglected tropical diseases

1. Introduction

In formulating definitions for control, elimination and eradication of neglected tropical diseases, public health workers need to consider the diversity of their causative pathogens, epidemiology, interactions with humans, ecology and other factors influencing transmission in specific communities. For some chronic diseases, such as soil-transmitted helminthiases, light infections rarely cause disease, and the main aim of interventions, such as preventive chemotherapy, is to reduce heavy infections in a population using regular, large-scale treatment. Conversely, for some acute diseases, such as human rabies, infection invariably leads to severe disease or death, and the main aim of interventions is complete prevention of the infection.

2. Definitions of control, elimination and eradication

The World Health Organization (WHO) Strategic and Technical Advisory Group for Neglected Tropical Diseases has proposed the following definitions for consideration by the WHO Department of Control of Neglected Tropical Diseases.

Control to mean "reduction of disease incidence, prevalence, morbidity, and/or mortality to a locally acceptable level as a result of deliberate efforts; continued intervention measures are required to maintain the reduction". Control may or may not be related to global targets set by WHO.

Elimination of transmission (also referred to as "interruption of transmission") to mean "reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area, with minimal risk of reintroduction, as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required". 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".

Eradication to mean "permanent reduction to zero of a specific pathogen, as a result of deliberate efforts, with no more risk of reintroduction". The process of documenting eradication is called "certification".

Extinction to mean eradication of the specific pathogen so that it no longer exists in nature or the laboratory, which may occur with or without deliberate efforts.

3. Assessment process

The formal process of certification will involve an International Commission that verifies and progressively grants country certification while surveillance is continued until all countries are duly certified. Certification is justified only for diseases that are targeted for **eradication**, such as smallpox in the past and dracunculiasis, yaws and poliomyelitis in the present.

Validation of elimination as a public health problem or verification of elimination of transmission should be assessed against objective criteria in a country, area or region, and the achievement recorded formally. Elimination (according to these two definitions) is therefore not an end-point but a status that must be sustained. The development and implementation of novel, effective interventions or surveillance and response systems may lead, in the future, to eradication: In this event, countries in which elimination as a public health problem or elimination of transmission has been validated or verified would have to undergo the formal process of certification, under an International Commission.

The WHO Roadmap on neglected tropical diseases has set eradication and elimination targets. Eleven diseases are targeted for elimination at the global, regional or country level in 2015–2020 (*Table 1*).

Table 1. WHO Roadmap targets for eradicating and eliminating neglected tropical diseases^a

Disease	2015					2020			
	Eradication	Global	Regional	Country	Eradication	Global	Regional	Country	
Rabies			√ EOT Latin America				√ EOT South-East Asia Region and Western Pacific Region		
Blinding trachoma						√ EPHP			
Endemic treponematoses (yaws)					√				
Leprosy						√			
Chagas disease			√ EOT Transmission through blood transfusion interrupted				√ EOT Intra-domiciliary transmission interrupted in the Region of the Americas		
Human African trypanosomiasis				√ EPHP In 80% of foci		√ EPHP			
Visceral leishmanisis							√ EPHP Indian subcontinent		
Dracunculiasis	√								
Lymphatic filariasis						√EPHP			
Onchocerciasis			√ EOT Latin America					√ EOT Selected countries in Africa	
Schistosomiasis			√ EOT Eastern Mediterranean Region, Caribbean, Indonesia and the Mekong River Basin				√ EOT Region of the Americas and Western Pacific Region	√ EOT Selected countries in Africa	

4. Process for validating elimination as a public health problem, verifying elimination of transmission and certifying eradication of disease

The WHO Roadmap targets the eradication, elimination of transmission or elimination as a public health problem, at regional or global level, of Chagas disease, human African trypanosomiasis, human dog-mediated rabies, leprosy, lymphatic filariasis, onchocerciasis, schistosomiasis, trachoma, visceral leishmaniasis and yaws by 2020. These targets are all supported by global political commitment as elaborated in various World Health Assembly or regional resolutions.

EOT, elimination of transmission; EPHP, elimination as a public health problem.

^a Adapted from Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation. Geneva: World Health Organization; 2012 (WHO/HTM/NTD/2012.1).

The definitions of elimination as a public health problem, elimination of transmission and eradication of disease, as well as the indicators used to assess their achievement, are specific to each disease and were established through a consultative process by WHO and partners.

4.1 Standard operating procedures

Standard operating procedures for validating elimination as a public health problem or verifying elimination of transmission need to be established and standardized for (i) preparation, review and feedback on dossiers for validation, verification or certification in a Member State; (ii) public acknowledgement by WHO of validation, verification or certification of a Member State; and (iii) activities after validation, verification or certification in a Member State (which may be intended to either sustain the disease burden under the targeted threshold or continue progress towards a more advanced goal). The principles that will regulate those standard operating procedures are given below.

4.1 Preparation of dossiers for validation, verification or certification

- WHO will provide the Member State with a template dossier for each disease.
- The dossier should contain the minimum amount of information necessary to establish
 whether the Member State has met the requirements for validation, verification or
 certification.
- Additional optional information may be included at the discretion of individual national programmes, and should be clearly indicated.
- The dossier should be completed and maintained online. If the national programme
 does not have the capacity or the bandwidth to complete the dossier online,
 information should be forwarded to WHO for uploading.
- If possible, systems should be established to transfer data already stored in electronic
 format elsewhere (e.g. baseline trachoma prevalence data, mass drug administration
 coverage data, atlas of human African trypanosomiasis) to the dossier, in order to
 maximize efficiencies for national programme staff and maintain the integrity of the
 data.
- The Member State is responsible for initiating the preparation of the dossiers for its national programme. If requested, WHO will provide technical assistance.

- WHO headquarters is responsible for maintaining the repository of dossiers. Each
 dossier should be systematically reviewed to ensure that duplicate information is
 removed.
- If the dossier fulfils the requirements of the validation process, the consent of Member States should be requested to allow either the full or the summary dossier containing the pre-specified core information to be accessible on the Internet via the WHO NTD website.

4.2 Submission and assessment of dossiers for validation, verification or certification

- The Member State should submit the completed dossier to WHO. For each disease,
 WHO will establish the process for review of the dossier and identify a Reviewing Authority.
- The Reviewing Authority will vary according to whether validation, verification or certification is being assessed (*Table 2*).
- The Reviewing Authority should collectively discuss each dossier received, via video conference, teleconference or at a face-to-face meeting.
- With the exception of eradication, country visits will not be required unless requested by the Reviewing Authority.
- The Reviewing Authority should decide by consensus and within one year of receipt of the dossier to either: (i) validate the claim of elimination as a public health problem, verify the claim of elimination of transmission or certify the country in the process towards eradication; or (ii) postpone such decisions until more evidence has been provided in the dossier to demonstrate that this has occurred.

4.3 Feedback on dossiers for validation, verification or certification

- WHO will summarize the comments and decision of the Reviewing Authority.
- If the claim of elimination is accepted, the summary will be forwarded to the Director-General of WHO.

• If the claim of elimination is postponed, WHO will request the country to provide any further evidence needed to enable validation, verification or certification by the Reviewing Authority.

4.4 Acknowledgement of validation, verification or certification

- At the discretion of the WHO Director-General, a letter of notification will be provided to the Member State by way of official acknowledgment.
- WHO headquarters will, where indicated, change the endemicity status of the
 Member State in the Global Health Observatory to "eliminated as a public health
 problem", "elimination of transmission" or "eradicated", with a note specifying the
 date of the change in status. For eradication, an Eradication Commission will decide
 on certification where there is an eradication programme.
- Where indicated, WHO headquarters will also acknowledge the achievement of the
 Member State in the next annual disease-specific article published in the Weekly
 Epidemiological Record. WHO will continue to note whether the definition of
 elimination as a public health problem, elimination of transmission or certification is
 still met in the Member State, on an annual basis, in the Weekly Epidemiological
 Record.

4.5 Activities after validation, verification or certification

- The Member State should continue to undertake post-elimination surveillance for the
 disease according to its epidemiological characteristics. A statement of commitment
 and a description of the surveillance strategy should be included in the dossier.
- All stakeholders must recognize that the status of validation, verification and
 certification is potentially reversible, and take this into consideration in their
 communications at all stages. Where post-elimination surveillance data indicate that
 the disease or infection has recrudesced above defined thresholds or has reappeared,
 this change in endemicity status will be noted in the Global Health Observatory and
 the Weekly Epidemiological Record.

- Member States are responsible for ensuring that surveillance data are made available to WHO.
- For some diseases, Member States that have achieved elimination as a public health problem may, at a later date, request verification of elimination of transmission, if appropriate evidence demonstrates that this has occurred.

Table 2. Operational definitions for eradication and elimination of neglected tropical diseases

Status	Applicable term	Geographical area	Reviewing authority	Acknowledged by
Eradication	Certification	Global	International Commission	WHO Director-General
			established by World Health	(for individual countries)
			Assembly Resolution	and World Health
				Assembly (globally)
Elimination of transmission	Verification	Geographical	Ad hoc international	WHO Director-General
		region and country	Reviewing Authority	
Elimination as a public	Validation	Country (sum of	Ad hoc regional Reviewing	WHO Director-General
health problem		subnational units)	Authority	

REPORT OF THE GLOBAL WORKING GROUP MEETING ON CAPACITY STRENGTHENING FOR CONTROL OF NEGLECTED TROPICAL DISEASES

World Health Organization, Geneva, Switzerland

Chairman: Prof. David Molyneux

Introduction

A conference call of the Working Group on Capacity Strengthening for Control of Neglected Tropical Diseases (WG-CS) was organized by the Secretariat of the WG CS on 10 April 2015. The agenda (Annex 1) and list of participants (Annex 2) are included in this report.

Activities 2014

- Training courses for NTD national teams implementing PC programmes were implemented in:
 - a. AFR (Nigeria and Ethiopia);
 - b. EMR (Egypt, Sudan, Somalia and Yemen); and
 - c. AMR (Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras and Perú).
- Adaptation of all the above courses is being done in all the WHO Regions; in AMR, this also includes diseases targeted for IDM (Chagas disease, leprosy and leishmaniasis);
- A training course for morbidity management and disability prevention of LF was undertaken in AMR (Guyana);
- A training course for clinical management and lab diagnosis for SCH, STH and other intestinal parasites was held in AMR (Saint Lucia);
- Training courses for clinical management and laboratory diagnosis of leishmaniasis,
 Chagas disease and leprosy in AMR countries;
- Development on contents of online training courses for STH and blinding trachoma in AMR;
- Development of dossiers for verification of the elimination of NTD in AMR:
 - a. Mexico submitted the dossier for verification of elimination of onchocerciasis to WHO and Guatemala completed its first draft of a dossier for elimination of onchocerciasis which was submitted to PAHO in April 2015. Mexico completed the first draft of a dossier for verification of elimination of blinding trachoma. These two dossiers were developed with technical and financial support of PAHO/AMRO
- An editorial committee has been constituted and meets every six months to update materials of the training courses for NTD national teams implementing PC programmes, in collaboration with HQ focal points;
- WHO HQ has been coordinating the development of district-level managers training courses with partners support for the implementation of programme managers training in SEARO;
- Establishing a database of trained resource persons to provide technical support and peer-to-peer learning;

- Started the mapping of WHO Collaborating Centres for the implementation of capacity strengthening activities;
- Completed the laboratory scoping study, with the inclusion of AFRO;
- Examples of countries strengthening national and subnational capacities for NTD are:
 - a. Brazil is funding entirely its national plan of action for NTD launched in 2012; training for all the components and diseases of its plan, including its national integrated campaign of STH, leprosy and blinding trachoma is funded by the MoH jointly with the local health authorities. A TIPAC workshop held in 2014 was co-funded by the MoH. PAHO/AMRO and other partners supported the workshop with seed funds (trainers, some specific educational materials, etc.).
 - b. Colombia received training on formulation of integrated NTD plans, and currently is expanding the training at the subnational level with its own resources. The national plan of NTD is entirely funded by the MoH, including training for several components and diseases of the plan. PAHO/AMRO and other partners support with seed funds (trainers, some specific educational materials, etc.).

Activities 2015

- Training courses for NTD national teams implementing PC programmes were implemented in January in:
 - a. WPRO (American Samoa, Brunei Darussalam, Cambodia, China, Fiji, French Polynesia, Kiribati, Laos People's Democratic Republic, Malaysia, Marshall Islands, Federated States of Micronesia, Mongolia, Philippines, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu and Vietnam)
- A district-level managers training course was scheduled from 6 to 17 April in the United Republic of Tanzania, to pilot test training materials developed in the last two years with the contribution of WHO HQ and AFRO and several NTD partners including: APOC, CWW, LSTM/CNTD, KEMRI, NOGUCHI, RTI, SCI and national programme managers from Ghana, Tanzania and Burkina Faso. Two of the WG CS members, Amy Doherty and Narcis Kabatereine, participated in the pilot workshops.
 - a. Fifteen resource persons were trained as part of the "training of trainers" from 6 to 10 April 2015. The feedback (administrative arrangements, logistics) and technical suggestions for country adaptation obtained have been used to amend the modules for use at District Levels. WHO NPO and MoHSW NTD national programme managers were among the course facilitators.
 - b. Three pilot workshops were implemented from 13 to 17 April 2015 in Pwani, Morogoro and Mbeya. A total of about 90 district level personnel on district teams have being trained. The course content received by participants was positive. Trainers trained from 6 to 10 April 2015 implemented the course in Swahili as this is the preferred language at sub-national level. However, slides and learners guides are still in English.
- Guatemala submitted its dossier in April 2015 (see 2014 above)
- Brazil is compiling a dossier for the elimination of transmission of the LF.

 Puerto Rico started the process of compilation of a dossier to support the elimination of schistosomiasis.

The Editorial Committee continues to update material I, National District Managers course.

Planned activities

- Provide enhanced support to Regions in implementing :
 - a. training courses for NTD national teams implementing PC programmes; and
- Training courses for district-level managers. Specifically next steps will be to finalize training material by:
 - a. Including feedback obtained from all the training sites;
 - b. Finalize the modules with the support of an editorial committee, that needs to be established, to ensure that materials are available by the second part of the year 2015; and
 - b. Plan a schedule for the dissemination for the course.
- Continue to promote access to training by involving partnerships, alliances, WHO
 Collaborating Centres, academia and stakeholders;
- Complete the "mapping" of WHO Collaborating centres for the implementation of capacity strengthening activities;
- Plan launch of an e-learning platform as part of the NTD website to increase access to training courses and materials;
 - Establish a reference laboratory network to support NTD programmes drug efficacy monitoring and post-treatment surveillance activities;
- AMRO will implement:
 - a. A training course for NTD national teams in two countries in the second half of 2015.
 - b. A training course for TIPAC for national NTD teams of three countries (Colombia, El Salvador and Nicaragua) in May 2015.
 - c. Two online training courses (STH and blinding trachoma) for health workers. Contents for a training course for SCH will be developed.
 - d. A regional consultation with experts on morbidity will be held in November 2015

Recommendations

- Use online platforms to increase accessibility of NTD training courses.
- Promote country to country collaboration to strengthen training capacities through inter-country support of trainers.
- Integrate diseases targeted for IDM as part of the efforts and tools for country capacity strengthening.
- Develop country capacities for compilation of dossiers to support the request of verification of elimination of NTD, as well as the capacities at regional level to organize, fund and carry out missions of the international verification teams.
- Develop country and regional capacities for estimation of domestic investments on NTD national and subnational plans.

RTI, through its USAID-funded ENVISION project has/is:

- Finalized Serious Adverse Event Handbook a synthesis of WHO guidelines and tools to be easily understood by NTD Programme Managers. Content being adapted to training modules for national- and district-level managers. It is RTI's intent to develop the training in different modalities such as online and video to test most effective roll-out to reach the largest audience.
- Collaborating with CDC and WHO to develop Filariasis Test Strip (FTS) training video. The story board is finalized and videotaping will be conducted in Atlanta this week. This will complement the other diagnostics videos being developed by WHO with field shots being filmed in Pemba.
- Collaborated with WHO and others to conduct training courses for NTD national teams implementing PC programmes: WPR, EMR, Nigeria (120 Federal, State, NGDO and NTD coordinators participated) and Ethiopia (36 Federal and regional health bureau participants).
- Developed 3 modules for the district-level managers training course and supported modification of materials for the course to be piloted in Tanzania
- Co-sponsored with AFRO a Tool for Integrated Planning and Costing (TIPAC) training workshop in Zambia. Twenty participants from the following AFRO member countries participated: Botswana, Ethiopia, Eritrea, Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mozambique, Namibia, Nigeria, Seychelles, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zanzibar and Zimbabwe; TIPAC training has been provided in ENVISION-supported countries as requested.
- ENVISION funds will support the TIPAC developer to modify to tool to incorporate the latest version of the Joint Request for Selected PC Medicines (JRSM) form. The JRSM can be generated from data entered into the TIPAC.
- ENVISION funds will support the developer to modify the Integrated NTD Database based on WHO, MOH and collaborator recommendations, and fix "bugs" that may be identified by end-users; and the project M&E team will help to manage development. The ENVISION M&E team also provides training in USAID-supported countries.
- Co-sponsored with AFRO, and provided facilitator for, an Integrated NTD Database and Data Quality Assessment (DQA) training workshop in Togo. Fifty-nine participants from AFRO and its member states participated in the training. Following is a list of countries represented at the workshop: Angola, Benin, Burkina Faso, Burundi, Cameroon, CAR, Comoros, Congo, Cote d'Ivoire, Gabon, Guinea Bissau, Madagascar, Mali, Mauritania, Madagascar, DRC, Sao Tome and Principe, Senegal and Togo.
- Sponsored an Integrated NTD Database and Data Quality Assessment (DQA) Trainthe-Trainer workshop hosted at KEMRI in Nairobi. Twenty-nine participants including MOH, WHO, RTI, other NGDOs and consultants attended.
- ENVISION has sponsored participants to attend the Global Trachoma Mapping Project (GTMP) grader training developed and implemented by Sightsavers.
- ENVISION is supporting the translation of resources, tools, handbooks and course materials to help ensure they are available in the major languages; and are helping to disseminate them to NTD country programs.

ANNEX 1



NTD STAG Global Working Group Meeting on Capacity Strengthening for Control of Neglected Tropical Diseases (WG-CS), Geneva, Switzerland 10 April 2015, Conference Call.

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PROVISIONAL AGENDA					
	Item	Name			
15: 00 – 15:10	Welcoming remarks	F. Rio and			
15:10 – 15:20	Meeting objectives	D. Molyneux (Chair) F. Rio and G. Biswas			
15:30 – 15:40	Summary report on recommendations from WG CS 2014	F. Rio			
15:40 – 16:00	Capacity Strengthening activities by WHO regions: priorities, progress, challenges and needs for NTD programmes	Regional Focal Points			
		Partners			
16:10 – 16:30	Capacity Strengthening activities by NTD partners: 2014 activities, opportunities and future plans				
		Discussion led by			
16:30 – 16:50	Capacity Strengthening work plan for 2015 Priority tasks, task allocation & task coordination	Chair			
		Discussion led by			
16:50 – 17:00	WG CS Recommendations and Report to STAG 2015	Chair			

ANNEX 2

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Sixth NTD-STAG Global Working Group Meeting on Monitoring and Evaluation of Preventive Chemotherapy

Department of Control of Neglected Tropical Diseases Geneva, 9-11 February 2015

Acting Chair: Prof. John Gyapong Rapporteurs: Ms. Katie Zoerhoff, Dr. Reda Ramzy



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¹ **Addendum**: Meeting report on Strengthening the assessment of lymphatic filariasis transmission and documenting the achievement of elimination, 2014.

Executive Summary

The sixth NTD-STAG Global Working Group Meeting on Monitoring and Evaluation (M&E) of Preventive Chemotherapy (PC) was held in Geneva from 9-11 February, 2015. The objective of this meeting was to prepare a working paper on M&E of PC interventions to present to the NTD/STAG 2015, and to determine priority activities for each of the sub-groups for 2015 and beyond. Emphasis of the meeting discussions was on assessment and assurance of PC data quality for national programmes, diagnostics for schistosomiasis, coordinated monitoring and evaluation for lymphatic filariasis and onchocerciasis elimination and programme evaluation.

An overview of the outcomes from the STAG 2014 recommendations was reviewed, including activities that addressed structural issues, diagnostics, guidelines and standards, research, and strengthening data management. The results from a survey on PC Data Management Tools for National Programmes were shared, in order to identify how the dissemination and uptake of the tools can be strengthened. Representatives from select NTD-endemic countries and WHO regional offices described their M&E activities and needs, highlighting issues with data quality, and particularly data timeliness. The challenges, gaps, and proposed tools for monitoring disease-specific indicators were explained, and new LF elimination programme guidance was outlined for national programmes. APOC provided an update on 2013-2014 activities, and recommendations from the revised guidelines for verification of elimination of human onchocerciasis were shared. Participants were updated on the new STH tools finalized in 2014 as well as those under development for 2015. An update on the Capacity Strengthening Working Group efforts was also provided. Highlights of the third WHO NTD Report themed *Investment for Impact* were presented.

Meeting participants then broke up into four groups to deliberate and develop recommendations to address key issues that had been identified by countries, partners, and WHO and had been discussed in detail by sub-groups which had met earlier on diagnostics for schistosomiasis and harmonizing monitoring of LF and onchocerciasis control/elimination programmes. The groups discussed diagnostics for schistosomiasis, and recommended the use of Circulating Cathodic Antigen (CCA) as a monitoring and evaluation tool for schistosomiasis. Another group conducted a technical review of PC data, discussing the challenges and causes of failure to use or late submission of the Joint Application Package (JAP), poor usage of WHO-donated medicines, and identifying recommendations for both global/regional and country levels. The third group recognized that clear guidance to countries is needed on how best to integrate/coordinate between LF and onchocerciasis programmes to accelerate elimination, including the definition of implementation units, data reporting, drug distribution, and M&E activities. New guidance was drafted for countries around coordinated implementation, monitoring, and evaluation for LF and onchocerciasis elimination. A fourth group reviewed three tools that have been developed to assess the quality of PC data and made recommendations regarding their finalization and roll-out.

The working group then identified nine recommendations to be submitted to the NTD-STAG for consideration, including use of the CCA and Filariasis Test Strip diagnostic tools for schistosomiasis

and LF respectively, guidance for countries around starting LF MDA, and consideration of alternative strategies to accelerate elimination for LF and onchocerciasis. In addition, recommendations were made to encourage countries to submit the Joint Application Package to report and request medicines, and to establish internal data submission deadlines to improve data timeliness. Focused technical and operational support to improve data management and drug usage should be provided to the countries which presently account for the current global and regional PC implementation deficit, and Data Quality Assessments (DQA) should be recommended to programme managers as part of a systematic approach to objectively assess PC data quality.

The sixth NTD-STAG Global Working Group Meeting was well attended, with representation relevant experts and focal persons from all WHO regions, APOC, international donor agencies and several NTD implementing partners whose valuable contributions to this meeting are gratefully acknowledged.

INTRODUCTION

Dr. Engels opened the sixth meeting of the World Health Organization (WHO) Monitoring and Evaluation (M&E) Working Group on Preventive Chemotherapy (PC), noting that the working group has made substantial progress over the years to strengthen routine M&E at the country level as well as advance disease-specific monitoring and evaluation efforts. However, there remains an urgent need to improve data management, including data timeliness, as well as to develop and roll-out tools to accurately monitor and assess endpoints as we approach the 2020 goals. Dr. Biswas then thanked the Working Group for the efforts carried out to date, but also highlighted the need to use data collected by NTD programmes to better manage activities at both district and national levels. It was pointed out that the opportunity for taking corrective measures is lost when data are submitted late, and it's imperative that evidence be used for decision-making and informing the development of guidelines. Prof. Gyapong welcomed the meeting participants as Acting Chair, requesting that this meeting be an opportunity to reflect on current processes and what can be done to improve them, so that we can monitor and evaluate NTD programmes more effectively.

Update on Outcomes of STAG 2014 Recommendations, P. Mbabazi

Dr. Mbabazi provided an overview of the outcomes from the 2014 report to the STAG. Highlights of activities that occurred as a result of the 2014 recommendations include:

- **Structural Issues**: The Working Group Investment for Impact was established, and there have been mechanisms proposed to support expanding the Regional Programme Review Groups (RPRGs) to include additional diseases. Additionally, there has been a call to address the persistent absence of dedicated NTD personnel and M&E focal points at the regional levels.
- **Diagnostics**: There was a call for a systematic process to evaluate new diagnostics and review their utility for programs. Technical consultations were held to review the Alere Filariasis Test Strip for *Wuchereria bancrofti* antigen (See Meeting report *Strengthening the assessment of lymphatic filariasis transmission and documenting the achievement of elimination, 2014*) and a review of diagnostics for schistosomiasis.
- Guidelines and Standards: There was a request for a technical consultation on Strongyloides. A meeting was conducted with a generic producer of ivermectin, and analyses are being carried out by WHO to 1) determine the impact on strongyloidiasis of ivermectin distributed for the control of onchocerciasis, and 2) determine the global distribution and number of individuals in need of PC for strongyloidiasis. Additionally, a template for a dossier documenting elimination of LF has been developed, to help countries present supporting evidence backing claims of achieving the LF elimination targets.
- **Research**: Sub-group 2 has made progress to address tool gaps and improve programme performance, such as examining the utility of an antibody assay for decisions to stop trachoma treatment, utilizing a multiplex approach to surveillance, developing diagnostics for Loa loa.

• Strengthening Data Management: the WHO HQ/PC Operations Team disseminated and facilitated update and the use of the Joint Application Package, and there have been closer analyses of medicine supply and implementation data, with regular dissemination of results. The Integrated NTD Database has been developed and rolled-out with positive country experience to date. Coverage evaluation protocols have been developed and are being field-tested, and data quality assessments have been carried out in some countries.

SUB-GROUP 1 REPORTS: M&E NEEDS OF NATIONAL NTD PROGRAMMES

Survey on Preventive Chemotherapy Data Management Tools for National Programmes, A. Mikhailov

WHO conducted a survey to assess the level of awareness and use of tools for data management, in order to identify gaps and the causes for problems and delays. The survey was available in English and French, and assessed the Joint Application Package (JAP) and its training materials, Integrated NTD Database, TIPAC, and PCT Databank and Global Health Observatory. Fifty nine participants responded from 43 countries. The results showed that most respondents were aware of the tools and found them to be useful or very useful. However, there were varying levels of use; reasons for lack of use included being unable to access the internet, limited time, not available in their language, and requiring technical assistance to utilize. Respondents provided suggestions to improve guidance and assistance to national programmes to better use the tools, including organization of workshops (90%), technical assistance provided by email within 24 hours (36%), an online forum available with questions and answers (44%), and developing and disseminating self-training materials (46%).

M&E Needs Assessment for National NTD Programmes, U. Nwankwo, U. Mwingira, W. Bougma, S. Jain, A. Ma'ruf

Representatives from Burkina Faso, India, Indonesia, Nigeria, and Tanzania described the progress of NTDs in their countries, including the endemicity and mapping status, PC status, implementation of assessments, and their data management system. Challenges varied across countries, and included data quality, accuracy of denominators for coverage, populating a database with historical data, implementing coverage surveys, building and maintaining capacity of staff for data management, persistent microfilaremia in some areas, poor monitoring of STH programmes, and using a single reporting form. It was recognized during the discussion that a common issue is data timeliness; there are major delays getting accurate data from the communities through districts to national level. It was agreed that this needs further investigation at the field level, and an exploration of how this can be improved. Suggestions for improving data timeliness at country level included fixing internal timelines against which data are expected to be submitted to the next level, strengthening the quality of training on data management at sub-national levels, and rolling out mHealth for data collection.

Regional Summaries and Priority Needs, L. Catalá, R. Ben-Ismail, M. Jamsheed, N. Dayanghirang

Representatives from AMRO, EMRO, SEARO, and WPRO shared the progress in control and elimination of the PC NTDs in their region, including a summary of 2013-2014 data and mapping, intervention, and M&E activities. Regional issues included the need to complete mapping and assess the epidemiological status of NTDs, the high cost of transmission assessment surveys (TAS) and difficulty obtaining diagnostics, human resource constraints including funding as well as training, poor coverage among MDA populations, and post-MDA surveillance activities, among other challenges.

SUB-GROUP 2 REPORTS: MONITORING OF DISEASE SPECIFIC INDICATORS

Challenges, Gaps and Proposed Tools, P. Lammie

Dr. Lammie gave an update on Sub-Group 2's activities during 2014. He reminded meeting participants of the important question: to translate new tools into program practice, what is necessary and sufficient? Tool validation is necessary in both the lab as well as the field, and there are a number of current studies supported by the Filling the Gaps Operational Research aimed at validation of diagnostic tools. These include a test strip for LF mapping and TAS, Wb123 and Bm14 for LF mapping and post-MDA surveillance, Ov16 Rapid Diagnostic Test for onchocerciasis mapping and impact assessments, a biplex for stopping MDA and post-MDA surveillance for LF and oncho, PCR and pgp3 antibody for stopping MDA and post-MDA surveillance for trachoma, PCR for STH-TAS and assessing program impact, and CCA for schisto mapping.

New LF Programme Guidance, J. King

Dr. King shared the country status in the Global Programme to Eliminate Lymphatic Filariasis (GPELF) as of 2014, including countries where MDA has not yet started, countries where MDA is not yet at 100% geographical coverage, countries that are at national geographical coverage, and countries implementing post-MDA surveillance. There is an urgent need to scale-up MDA to all endemic districts in 31 countries by end of 2015 to have a chance to stop MDA by 2020. Nine countries requiring MDA have yet to start. Many countries have completed mapping but are yet to start MDA. In efforts to facilitate scale-up of MDA the following modifications to GPELF strategy are recommended:

- 1. Countries that have not yet collected baseline data in sentinel sites should use microfilaremia (Mf) or antigenemia (Ag) data from mapping sites as their baseline sentinel site data and start MDA.
- 2. Countries that have not started MDA because conflicting data in baseline sentinel sites (such as <1% mf) was found or a low level of Ag (such as 1%) found in mapping sites was felt not to justify MDA should start MDA or re-survey the implementation unit using a decision-making prevalence survey (see Meeting report Strengthening the assessment of lymphatic filariasis transmission and documenting the achievement of elimination, 2014).

TAS has been conducted in at least 1 implementation unit in 25 countries. As of the end of 2014, the overall "pass" rate for TAS has been quite high, with 96.4% of IUs covered during TAS1 passing, 98.9% passing TAS2, and 100% passing TAS 3. From now until 2020 there will be significant scale-up in TAS implementation resulting in an estimated need of up to 8 million diagnostic tests. GSK, Merck, Eisai and Bill and Melinda Gates Foundation agreed among themselves to subsidise through WHO the procurement of diagnostics needed by countries to implement TAS. A new version of the immunochromatographic test for detection of W. bancrofti antigen was developed. The new version, Alere Filariasis Test Strip (FTS) is intended to replace the current version, BinaxNow Filariasis ICT. Both tests are produced by the same manufacturer. The major advantages of the FTS over the ICT are 1) a reduced cost, 2) extended shelf life at ambient temperatures not requiring cold storage and 3) ability to detect lower-concentration of filarial antigen in serum. The performance of the FTS was evaluated in both research studies and M&E activities of national LF elimination programmes and results discussed during a meeting of the Sub-group 2 held in August 2014 (see meeting report Strengthening the assessment of lymphatic filariasis transmission and documenting the achievement of elimination). The FTS was recommended for use pending requested design modifications to overcome issues limiting the labelling and handling of the test during field use. The manufacturer has since volunteered a feasible modification to overcome the major operational issues by providing a sticker to label and secure the test to the protective plastic boat during operation. The proposed modification was presented to technicians conducting the comparison trials and all agreed that the stickers would facilitate the use of the test during TAS. To address concerns about quality control during the production, the manufacturer provided WHO with a protocol for internal quality control. An adequate source of positive control for quality assessment (usually done by countries upon receipt of diagnostic tests) has not been identified.

The previous recommendation of Subgroup 2 was amended during the M&E Working Group to:

3. The **Filariasis Test Strip (FTS) is approved for use** in the Global Programme for the Elimination of Lymphatic Filariasis as a diagnostic tool for *W. bancrofti* antigen. National programmes **may replace the ICT with FTS** in mapping, evaluation, and TAS.

As of 2014, 16 countries had stopped MDA nationally and are under surveillance to ensure elimination targets have been achieved. These countries have requested guidance in preparing and submitting an elimination dossier. A template for the dossier documenting the elimination of LF has been developed to help managers of national lymphatic filariasis (LF) programmes present, to WHO, a dossier with supporting evidence with the request for validation that LF has been eliminated as a public health problem (see template). The template provides a format to compile the minimal information needed to document LF elimination, standardize the presentation of information for unbiased review, and reduce clarifications needed by dossier reviewers. The template requests information to support achievements in both stopping the spread of infection and alleviating suffering among persons with chronic disease. Countries are requested to provide data on burden of LF-related disease and availability of the basic package of care to manage morbidity.

APOC Update and Report on 2013-2014 Activities, A. Tekle

Delineating hypoendemic areas to be treated started last year in DRC, Ethiopia, and Tanzania, and 14 countries are planned to undertake this activity in 2015, in order to determine whether or not to include these areas in CDTI treatment. There has been a progressive increase in the number of people treated

with ivermectin for oncho in Africa, and most countries are achieving more than the 80% therapeutic coverage needed for elimination. APOC has provided support for MDA activities, including co-implementation with LF, and has been conducting epidemiological evaluations since 2008. Phase 1b epidemiological evaluation showed elimination of oncho infection in sites in Burundi, Chad, Ethiopia, Nigeria, and Tanzania. Entomological evaluations are also being implemented in 10 countries as part of Phase 1b evaluation to decide if treatment can be stopped. The elimination status of onchocerciasis in multiple ex-OCP and APOC countries in Africa was shared; challenges to achieving elimination in Africa include financial constraints, conflict areas, insufficient technical capacity in some countries, and the outbreak of Ebola virus.

Update on guidelines for verification of elimination of human onchocerciasis, T. Ukety

The status of achieving verification of elimination of human onchocerciasis was presented for countries supported through OEPA, APOC, and in Yemen. WHO guidelines around the elimination of onchocerciasis were developed in 2001 upon request from OEPA, and revised upon request from APOC to incorporate advancements made in the Africa region. Between 2012-2013, the guidelines were revised by international experts. From 2013-2014, evidence was reviewed and assessed, and recommendations formulated. The recommendations were incorporated in 2015 and submitted to the Guidelines Review Committee. The updated guidance will be published and disseminated in 2015.

The clarification focused on two time points: transmission interruption and transmission elimination. The new guidance can be summarized as follows:

- WHO recommends using poolscreen testing in black flies (Simulium spp) and serologic (Ov16 ELISA) testing of children for the purpose of stopping mass drug administration (MDA). WHO suggests not using skin snip microscopy to demonstrate the interruption of transmission of Onchocerca volvulus for the purpose of stopping mass drug administration (MDA). In situations where skin snips are currently being used along with poolscreen testing, WHO recommends transitioning to using poolscreen testing in black flies (Simulium spp) and serologic (Ov16 ELISA) testing of children, as soon as is feasible.
- WHO recommends using poolscreen testing in black flies (Simulium spp) in order to confirm interruption of transmission of *O. volvulus* at the end of the post treatment surveillance (PTS). If resources allow, WHO recommends incorporating serologic (Ov16 ELISA) testing of children as well.

New STH Tools, A. Montresor

A number of STH tools were developed and finalized in in 2014, including the Collection of STH Data during TAS, a policy document on anaemia, an STH model, Assessing the Efficacy of Antihelminthic Drugs against Schistosomiasis and Soil-Transmitted Helminthiases, and a manual to support teachers with drug distribution. Also in 2014, the following materials were under development: Manual on Treatment of Women of Childbearing Age, a video manual on parasitological methods, and a manual on the use of historical STH data for mapping.

Capacity Strengthening (CS) for National NTD Programmes: F. Rio

The working group for capacity strengthening has been focusing on programme management in the five highly populous countries (DRC, Ethiopia, Nigeria, Tanzania, and Indonesia), development of elearning tools, and strengthening laboratory capacity. The working group members have worked on completing the NTD Toolkit and completing the development of the District-Level Manager's Training Course for piloting in 2015 in collaboration with several NTD partners Training courses for NTD National Teams implementing PC programmes were held in Nigeria, Ethiopia, EMR, and WPR, including regional adaptation. Future activities include establishing and maintaining an e-learning platform, providing further support regions to implement training courses, promoting greater involvement of WHO collaborating centres and other public health institutions in implementation of CS activities, and widely implementing district-level managers training course.

GROUP DISCUSSIONS AND EVIDENCE BASE REVIEWS

Meeting participants broke up into four groups to review evidence and develop recommendations to address key issues that have been identified by countries, partners, and WHO.

Diagnostics for Schistosomiasis

This sub-group discussed the challenges of diagnosing schistosomiasis and the potential of new diagnostic approaches and tools, and determined the readiness of these tools for use in national NTD programme settings. During the discussion, it was agreed that:

- Circulating Cathodic Antigen Point of Care test (CCA POC) should be adopted for *S. mansoni* mapping, monitoring and evaluation. This is because CCA is more sensitive than Kato-Katz, commercially available and easy-to-use at low cost. Other tests are either not commercially available or not fully evaluated.
- PCR can be used in monitoring transmission of the infection in snails.
- Circulating Anodic Antigen (CAA), which is more sensitive than CCA, can be used for verification of elimination of schistosomiasis. CAA tests have been evaluated mostly using blood specimens. Newer versions can be used on urine samples but further studies are needed to validate the test.
- There is the need for intensity cut-off/classification for CCA using the standard Kato-Katz classification.

It was recognized during the discussion in plenary that there haven't been any head-to-head comparisons of cost, but it appears that the prices of CCA may be less than Kato-Katz depending on the quantity purchased. The sustainability of using the CCA should be considered, since it will be donor-funded. The group recognized that Kato-Katz in it current function may also continue to be used by national programmes. It was suggested that a table outlining the characteristics of the various tools (Kato-Katz, CCA, CAA, PCR), including the status of development and readiness for use, be developed in order to make the recommendation more programme-oriented.

Technical review of Preventive Chemotherapy Data

This group reviewed the outcomes of an online survey on PC data management tools for national programmes, the status of records received at the global level using the Joint Application Package (JAP), and determined actions for strengthening data collection, transmission, reporting, and management at regional and country levels in priority countries. The group discussed the challenges and causes of no or late submission of the JAP, poor usage of WHO-donated medicines, and identified recommendations for both global/regional and country levels:

Global/Regional levels:

- 1. WHO to run a 12 month trial of the SUPPLY CHAIN PLANNING AND MANAGEMENT TOOL (currently being developed by a group of pharmaceutical donors).
- 2. WHO and partners to continue advocating and facilitating the use of JAP, Integrated NTD Database and TIPAC for better programme management.
- 3. WHO to clarify/remind on roles and responsibilities among 3 levels (i.e. HQ, RO and CO) to provide operational support to countries.
- 4. WHO, in collaboration with partners, to hold regular trainings/meetings at regional and national level on PC programme management and JAP, involving both programme managers and WHO national officers.
- 5. WHO to strengthen the review/approval mechanism for timely processing of JAP.
- 6. In regional training workshops/meetings, reinforce submission of annual work plan (with funding situation) and drug inventory data as part of JAP.
- 7. WHO to provide regular feedback to countries upon receiving JAP in a format useful for countries.
- 8. WHO and drug donors/partners to enforce countries to express their entire PC drug needs at national level in JAP and to improve coordination of drug allocation to countries.
- 9. WHO and partners to facilitate use of mHealth to improve data transmission from peripheral to national level.

National level:

- 1. Drug inventory of PC medicines should be managed at national and sub-national level and reported in JAP (e.g. the 2013 left-over in 2013 JRF, the provisional 2014 left-over in 2015 JRSM).
- 2. Annual data review and harmonization meetings should be convened at national level before submission of JAP, involving all PC programmes and partners.
- 3. Countries are encouraged to establish internal data submission deadlines prior to 15 August at national and sub-national level.
- 4. Countries are encouraged to roll out use of the Integrated NTD Database, TIPAC and JAP at national level and also at sub-national level in large countries.
- 5. Large countries where drug distribution is ongoing in different regions/states throughout a year may consider implementing a nationwide synchronized drug distribution over a shorter period.

Coordinated Implementation, Monitoring, and Evaluation of LF and Onchocerciasis Elimination It was recognized that clear guidance to countries is needed on how best to synchronize LF and ONCHO programmes to accelerate elimination of both diseases. Technical and programmatic aspects of defining implementation units, data reporting, drug distribution, interventions in Loa loa co-endemic areas, and M&E activities were discussed. Existing guidance to countries regarding distribution strategies, training, monitoring and supervision, coordinated support, and monitoring and evaluation was reiterated, and urgent operational research needs were outlined. The following guidance for countries was clarified:

- 1. **Implementation Unit** (IU) is the administrative unit at which a country determines requirement for and implements PC. For LF, the recommended IU is a District. For areas where LF and onchocerciasis are co-endemic, the IU should also be a District. For areas where onchocerciasis is endemic and LF is not, the IU should be the Community.
- 2. The **population requiring PC for LF and ONCHO** is the total population living in the IU(s) where PC is required. An IU is considered requiring PC where:
 - a. For LF, $\geq 1\%$ of persons tested in any community are infected (Mf or Ag).
 - b. For onchocerciasis, the community falls within any (hyper, meso, or hypo) transmission zone

3. Defining treatment coverage:

a. Geographical coverage =

Number of endemic administrative units where PC is implemented

-----X 100

d. Programme coverage =

All the individuals targeted for treatment in endemic administrative unit(s)

Note: "Targeted" population should be understood by both programmes as "the eligible population targeted by a given PC package". For example, SAC and adults in the LF or ONCHO programme using IVM, 2yr and above in the LF programmes using DEC in non-ONCHO countries, pre-SAC and SAC in

- 4. In order to integrate reporting for LF and oncho, WHO should **harmonize the existing data reporting forms** to one standardized tool, and adapt reporting forms to account for targeted population for different diseases and coverage calculations.
- 5. Countries should ensure that each planned round of PC is implemented. To maximize the impact, countries should plan drug distribution for both LF and Onchocerciasis in line with epidemiology of the diseases, encouraging communities to complete the distribution preferably at a time **prior to peak transmission seasons and within a focused time period** no longer than 2 months.
- 6. Countries should implement **district-wide** the recommended strategy of once, preferably twice-yearly albendazole and coordinated integrated vector control for LF where **there is any evidence** of *L. Loa* (>0% RAPLOA) and MDA / CDTi **has not started** in both **LF-only and LF/Oncho** (**hypo**) co-endemic districts. Vector control activities for LF should be included and coordinated with malaria programme efforts.
- 7. Where feasible, countries should try and **align timing of impact assessments** (TAS and Epidemiological/Entomological evaluations) to make coordinated stop-treatment decisions.
- 8. To hasten elimination, where countries are committed and resources are available, programmes **may implement semi-annual PC**. A situation analysis should be implemented for countries considering this approach. Priority for semi-annual treatment should be given where epidemiological data is not on track to meet elimination by the target date. Efforts should be made to evaluate and improve programme performance.

Semi-annual PC to hasten oncho elimination was welcomed under the said conditions. Published models of the impact of semi-annual treatment find different lengths of time to reaching elimination, but both agree that the number of years required to interrupt transmission is reduced when compared to annual treatment. The strategy has been successfully implemented to hasten the elimination of oncho from foci in both the Americas and Africa regions.

However, plenary discussions highlighted the need for additional review of evidence before recommending this alternative strategy to stop the spread of LF. The model presented in Stolk et al 2013 indicates semi-annual MDA may reduce infection below target thresholds for stopping MDA in half the number of years required with annual MDA, which would reduce long-term costs.

Improving PC Data Quality and Validity

Challenges to good data quality exist in national NTD programmes with regard to completeness, timeliness, reliability, confidentiality and country ownership. The group reviewed 3 tools that have been in development:

- Data Quality Assessment Tool for NTDs, K. Zoerhoff. This tool was developed to assess the quality of reported NTD data through data verification, and to assess the ability of the NTD management system through a systems assessment. Seven countries implemented DQAs in AFR, SEAR, and AMR by the end of 2014, assessing all levels of their reporting system. Basic PC data management systems exist, but are not always followed. Better storing and archiving of PC data is necessary at all levels, and stronger training in data recording/reporting and supervision is required. It was obvious that data timeliness is a major challenge in many countries.
- Coverage Evaluation methodologies for NTD programmes, K. Gass. A study implemented in two countries compared three post-MDA coverage survey methodologies to verify reported coverage, including Expanded Programme on Immunization (EPI), Lot Quality Assurance Sampling (LQAS), and Probability Proportionate to Estimated Size (PPES) with segmentation. It was recognized that the number of days needed for data collection has an impact on costs, and recall bias did not appear to be a substantial problem in the study. The time and cost of PPES with segmentation and EPI are comparable, but PPES with segmentation has the added advantage of generating an unbiased estimate of coverage. All three methods cost less than \$5,000 each per district to implement in-country. LQAS had only half the precision of the other two methodologies, but was quicker and cheaper and may be considered for adaptation for use as in-process monitoring tool (for Rapid Coverage Assessment, RCA).
- Rapid Coverage Assessment for NTD Programmes, K. Gass. This Rapid Coverage Assessment (RCA) approach is intended to be a quick, simple and inexpensive in-process monitoring tool implemented at sub-district level. It uses a LQAS approach, sampling 20 people from 20 different villages per supervision area approximately 2 weeks after completion of the MDA. A decision rule table guides implementers in interpreting the results and determining appropriate next steps.

The methodologies used as part of the DQA, PPES with segmentation, and RCA have shown utility to program managers and have promoted interest in validating and improving drug coverage. The group recognized the need to adequately field test tools before recommending for routine use for programme evaluations. Taking into consideration each of the tool's use and status of field testing, the group made the following conclusions:

- The DQA tool should be recommended to Programme Managers as part of a systematic approach to objectively assess PC data quality and should be implemented at a minimum of once every 3-5 years as part of Programme Evaluation. The same methodology should be adopted for routine use a DQS (Data Quality Self-Assessment) at district level on an annual basis.
- Comparative field-testing of the EPI, PPES with Segmentation and LQAS methodologies for coverage evaluation surveys, as well as the RCA for coverage monitoring, should be continued in 2015, in various country settings and WHO regions, to broaden the evidence-base for formulation of recommendations at next WG M&E meeting and subsequent adoption for use in national NTD programmes;

• A WHO position statement be issued on Coverage Evaluation and Data Quality Assessments for national NTD programmes. A simple explanation of available tools (application and benefit) should be highlighted to orient program managers to their use, and an algorithm could help explain when during NTD control scale-up these M&E tools would be informative.

The countries that have implemented DQA reported its value for identifying areas for corrective action and improvement. The regional focal persons committed to ensure that the DQAs are rolled out in a systematic way through training. It was also noted that given low literacy, varying complexities in drug distributions and data handling challenges at lower levels, further in-depth assessment of the PC management information system (MIS) is needed on the differences between source documents at various country levels and the divergence from standard templates and data reporting pathways. It was suggested that a series of case studies be compiled that can help inform best practices for source document development, effective implementation and strengthening of PC data management in a sustainable manner.

WG M&E 2015 RECOMMENDATIONS

The Working Group concluded with the following report and main recommendations for presentation to the NTD Strategic Technical Advisory Group (STAG) 21 – 22 April 2015:

LF-specific recommendations

- 1. Following a thorough review of evidence from laboratory and field-based comparison studies, the Alere Filariasis Test Strip (FTS) is approved for use in the Global Programme for the Elimination of Lymphatic Filariasis as a diagnostic tool for *W. bancrofti* antigen. National programmes may replace the ICT with FTS in mapping, evaluation, and TAS.
- 2. Collecting baseline data in sentinel sites prior to MDA is recommended. Countries may, however, substitute baseline data with microfilaraemia (Mf) or antigenaemia (Ag) data obtained from mapping surveys. Lack of baseline LF data from sentinel sites should not delay the start of MDA.
- 3. Districts identified as endemic during mapping surveys should start MDA. Where MDA was not started (due to perceived lack of supportive data), countries should start MDA or re-evaluate endemicity using a more robust sampling methodology (i.e. decision-making prevalence survey based on equal probability sampling). These IUs should not be reclassified as non-endemic based only on data from sentinel sites or on additional data from spot-check sites.

Onchocerciasis-specific recommendation

4. To hasten elimination of onchocerciasis, where countries are committed and resources are available, programmes may implement semi-annual PC with ivermectin. Efforts should be made to evaluate and improve programme performance. Priority for semi-annual treatment should be given where epidemiological data is not on track to achieve elimination by the target date.

Schistosomiasis-specific recommendation

5. Based on a systematic review of the evidence, the Circulating Cathodic Antigen- Point of Care test (CCA POC) is approved for use in monitoring and evaluation of *S. mansoni* infection control and elimination

programmes, including mapping and program evaluation. Countries are encouraged to consider using the CCA POC, particularly in areas of very low prevalence. Programme managers may continue the use of Kato-Katz, especially in areas of high prevalence and high intensity of infection.

National Programme-specific M&E needs recommendations

- 6. Programmes should implement Data Quality Assessments (DQA) as a systematic approach to objectively assess PC data quality. DQAs should be implemented at a minimum of once every 3-5 years, as part of Programme Evaluation. District NTD programme management teams should be enabled to conduct Rapid Coverage Assessments (RCA, within 2 weeks of MDAs) and Data quality self-assessments (DQS, annually) as part of in-process supportive supervision for PC data management in national programmes.
- 7. Applications for donation of PC medicines and treatment reports should be submitted to WHO in the recommended format (the Joint Application Package: JAP). Alternative formats are henceforth discouraged.
- 8. Countries should monitor drug usage and inventory at national and sub-national levels. Drugs remaining in stock and in the pipeline should also be reported in the JAP.
- 9. Countries should establish internal data submission deadlines prior to 15 August at national and sub-national level to improve timeliness and completeness of JAP. Villages should be encouraged to submit data within 1 week of MDA completion, and districts should submit data to the national level within one month of MDA completion.
- 10. Technical and operational support to improve data management and drug usage should be provided to the priority countries with:
 - a. high PC burden
 - b. poor reporting
 - c. poor management of donated medicines.

ANNEX



World Health 6th NTD-STAG Global Working Group Meeting on M&E of Preventive Chemotherapy 0 - 11 February 2015, Salle B, World Health Organization (WHO), 20 Avenue Appia, 1211 Geneva 27 - Switzerland

AGENDA			
Day I	Item	Name	
09:00 - 09:10	Welcoming remarks	ENGELS. D	
09:10 - 09:20	Introductions	GYAPONG J	
09:20 - 09:50	Update on outcomes of STAG 2014 recommendations, and	MBABAZI PS	
	Survey on preventive chemotherapy data management tools	MIKHAILOV A	
	UPDATES/REPORTS FROM 2014	GYAPONG J	
	M&E needs assessment for national NTD programmes		
09:50 - 10:00	Nigeria	NWANKWO U	
10:00 - 10:10	Tanzania	MWINGIRA U	
10:10 - 10:20	Burkina Faso	BOUGMA W	
10:20 - 10:30	India	JAIN S	
10:30 - 10:40	Indonesia	MA'RUF A	
10.40 - 11.00	Coffee break		
	Regional summaries & priority needs		
11:00 - 11:20	AFRO: Regional summary & priority needs	IMPOUMA B*	
11:20 - 11:40	AMRO: Regional summary (incl. OEPA update) & priority needs	PASCUAL L	
11:40 - 12:00	EMRO: Regional summary & priority needs	BEN-ISMAIL R	
12:00 - 12:20	EURO: Regional summary & priority needs	GASIMOV E	
12:20 - 12:40	SEARO: Regional summary & priority needs	JAMSHEED M	
12:40 - 13:00	WPRO: Regional summary & priority needs	DAYANGHIRANG N	
13:00 - 14:00	Lunch break		
	Monitoring of disease-specific indicators: challenges, gaps,proposed tools		
	Update: Sub-group 2 report on 2014 activities		
14:00 – 14:15	New programme guidance for lymphatic filariasis elimination: M&E,	LAMMIE. P	
14:15 – 15:15	Filariasis Test Strip, elimination dossier template	KING J	
	General discussion		
	M&E for Onchocerciasis Control & Elimination: APOC update and report on	ALL	
15:00 – 15:20	2013-2014 activities.	TEKLE A	
15:20 – 15:40	Update: Guidelines for verification of elimination of human onchocerciasis	UKETY T	
15:40 – 16:00	Coffee break		
16:00 - 16:20	Update: Monitoring Drug Efficacy for preventive chemotherapy	MONTRESOR A	
	Update: Integrating STH surveys with LF transmission assessments		
16:20 – 16:40	Update: Guidelines on deworming women of childbearing age Capacity Strengthening for national NTD programmes		
16:40 – 17:00	Investment for Impact of NTD interventions	RIO F	
17:00 – 17:40	General discussion on key M&E issues raised	FITZPATRICK C	
17:40 – 17:50	Group allocations and preparation for Day 2	MBABAZI PS	
17:50 – 18:00	Conclusion of Day 1	GYAPONG J	
18:15 – 19:45	COCKTAIL (Main Building Restaurant)		
		*AFRO – via Sky	

*AFRO - via Skype



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	AGENDA		
Day II:	Item	Name	
09:00 – 9:30	Overview of the WHO's Guideline Development process	HQ/HIS/KER/WHP	
	GROUP DISCUSSIONS AND EVIDENCE REVIEWS GROUP A: Diagraphics for Schistosomicsis (4 hours):	Group Rapporteurs	
	Diagnostics for Schistosomiasis (4 hours): 1. To discuss challenges of diagnosing schistosomiasis and the potential of new diagnostic approaches & tools 2. To determine the readiness of these tools for use in national NTD	BOCKARIE M	
	programme settings. GROUP B:	Discussants: ALL	
	Technical review of Preventive Chemotherapy data (4 hours):		
09:30 – 13:00	a. Outcomes of on-line survey on preventive chemotherapy data management tools for national programmes: responding to lessons learned and suggestions from national NTD programme managers	ZOERHOFF K	
	a. Status of records received at global level using Joint Application Package (JAP); Joint Requests for medicines, Joint repointing, Epidemiological reporting forms, Annual work plans	Discussants: ALL	
	b. Actions for strengthening data collection, transmission, reporting & management at Regional and country levels in priority countries		
10.30 - 11.00	Coffee break		
	Focus group discussions 1 & 2 continued	ALL	
13:00 – 14:00	Lunch break		
13.00 11.00	GROUP DISCUSSIONS AND EVIDENCE REVIEWS		
	GROUP C:	MKWANDA S	
	Coordinated implementation, monitoring and evaluation of LF and ONCHO elimination (4 hours)		
	1. Decision on the Implementation Unit	D'a a sur at a ATT	
	2. Harmonization of reporting coverage	Discussants: ALL	
	 3. Clarification on elimination strategies in the presence of Loa 4. Interim guidance on twice yearly treatment for onchocerciasis in context of integration with lymphatic filariasis 		
14.00 17.20	5. Recommendation of acceptable delivery strategies		
14: 00 – 17:30	6. Interim guidance on coordinated impact assessments/evaluations and stopping PC		
	GROUP D:		
	Improving PC data quality and validity (4 hours):		
	Data quality assessments, coverage evaluation & assessing compliance to treatment, addressing national NTD programme challenges to good data quality with a focus on completeness, timeliness, reliability, confidentiality and country ownership.	RUPPEL A Discussants: ALL	
15:30 – 16:00	Coffee break		
	Focus group discussions 3 & 4 continued	Group Leaders	
		Discussants: ALL	
		Discussains. ALL	



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PROVISIONAL AGENDA			
Day III:	Item	Name	
09:00 - 10:30	Group work outcomes, followed by general discussion and recommendations.		
	GROUP A: Diagnostics for Schistosomiasis	Group Rapporteurs Discussants: ALL	
	GROUP B: Technical review of Preventive Chemotherapy data	2100400411011122	
10.30 - 11.00	Coffee break		
11:00 – 12: 30	Group work outcomes, followed by general discussion and recommendations.		
	GROUP C: Coordinated implementation, monitoring and evaluation of LF and ONCHO elimination	Group Rapporteurs Discussants: ALL	
	GROUP D: Improving PC data quality and validity		
13:00 – 14:00	Lunch break		
14:00 – 15:15	RECOMMENDATIONS TO STAG 2015	Main Rapporteurs RAMZY R ZOERHOFF K	
15:15 – 15:30	WG M&E work plan: 2015 – 2016, and beyond	MBABAZI P	
	WG M&E – The Way Forward	BISWAS G	
15:30 – 15:45	WRAP UP AND CONCLUSION	GYAPONG J BISWAS G	
15:45 - 16:00	Coffee break & Closure of Day III		
16: 30 – 17:30	Meeting with WG M&E Members (NTD Department, Room L 358)		

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7th Working Group on Access to Assured-Quality Essential Medicines for Neglected Tropical Diseases (WGA)

Background document for discussion at the Teleconference, Monday, 20 April 2015 at 14:00

WGA 2015 Update on activities

- 1. Regulatory authorities from the 10 ASEAN countries reviewed information on quality issues concerning ALB and MEB and endorsed the following recommendations:
 - a. Chewable tablets should meet the requirements for conventional tablets. The labelling should state that chewable tablets <u>may</u> be chewed, swallowed whole or crushed and mixed with food or liquid. Whenever the dissolution or absorption of the API is known to be affected by certain food or liquid items, this should be stated in the label.
 - b. Chewable tablets should be developed with dissolution or another method for drug release characterization.
 - c. BE studies may be required involving chewable tablets that during treatment can be administered whole or chewed. For the BE study, both products (test and reference) should be administered whole (without chewing).
 - d. When tablets are intended to be administered to children, manufacturers should include in their application information describing the development work that has addressed the following:
 - Tablets should be easily crushed by chewing or by manual action;
 - Palatability.
 - e. The dissolution test measures the rate of dissolution of the drug from the dosage form in vitro. This test is necessary to help in the prediction of the behaviour of the drug in the dosage form after ingestion. Dissolution should be demonstrated using a method that has been validated or published in internationally recognized pharmacopoeias (such as the Ph. Int., USP, BP) or the relevant national pharmacopoeia, as applicable. Dissolution test acceptance criteria should be set at a minimum to meet the requirements of general limits for tablets or as specified in the recognized pharmacopoeia applicable monograph.
 - f. Appropriate national procedures should be implemented to require manufacturers to update their products' characteristics whenever new requirements adopted by authorities need to be met.
- 2. A PZQ Biowaiver study is ongoing. The objective of the study is to obtain solubility, permeability and polymorphism information on PZQ. Such information may permit to waive the requirement for costly bioequivalence studies. Results expected by September 2015.
- 3. A number of manufacturers of MEB, PZQ and DEC are in the process of WHO prequalification. No applications received for ALB.
- 4. ALB chewable tablets monograph has been finalised and will be added to the 5th Edition of the International pharmacopeia. The dissolution requirements are basically the same as published in the USP monograph on ALB conventional tablets. The only difference is that a higher rotation speed was specified.

- 5. A meeting to discuss increasing preventive chemotherapy coverage for STH in pre-school aged children and other related quality issues took place in Geneva on 12-13 March 2015. Attending: donors, manufacturers, UNICEF and NGOs. See annex 1 for action points.
- 6. UNICEF and WHO have agreed to harmonize their procurement policies for anthelminthics and will explore pooled procurement.
- 7. WHO and its Advisory Committee on Safety of Medicinal Products has worked with the EU authorities (EMA) to clarify the recent EU Pharmacovigilance regulations to take into account the challenges of reporting all adverse events during a preventive chemotherapy campaign. A draft text is being finalized into an official EMA statement.

WGA Main work areas for 2015 and Beyond for WGA members' consideration

- 1. To continue annual joint forecasting between all major interested parties for ALB, MEB, DEC and PZQ.
- 2. To promote harmonising procurement practices of donors of anthelminthics.
- 3. To repeat quality surveys in selected countries.
- 4. To intensify advocacy to increase the number of anthelminthic manufacturers applying for WHO prequalification.
- 5. To develop product profile for paediatric formulation for NTD medicines, starting with PZQ.
- 6. To investigate the need for guidelines for the appropriate management of unused donated medicines including assessment of the situation, consideration of possibility of redistribution, and review of existing policies on safe disposal.
- 7. To further promote pharmacovigilance and safety monitoring during PC activities.

WGA 2015 Planned Activities

- 1. A virtual meeting to be held between all interested parties to share 2015-2016 procurement plans and harmonise procurement policies.
- 2. Develop guidelines on good procurement practices to be shared and promoted by all partners/donors.
- 3. Understand barriers to prequalification through face to face meetings with manufacturers.
- 4. Identify countries and carry out quality surveys, building on the experience of past surveys.
- 5. Convene a meeting of experts to discuss suitability of existing and possible new formulations of PZQ for young children.
- 8. Review existing WHO policies on safe disposal of expired or damaged medications and assess need for development of practical guidelines.
- 6. Further promote the existing WHO Pharmacovigilance manual to all stakeholders.
- 7. Organize regional meeting of regulators of East African countries to follow-up on the outcome of quality surveys.
- 8. Investigate the Pharmacovigilance needs of priority countries and deliver appropriate capacity building support.

Recommendations to STAG	Progress
Continue to support joint forecasting and sharing of information among interested parties	On-going activity.
Assist countries in developing plans of action and capacity to distribute available donated NTD medicines and expand coverage.	On-going activity of PCT team.
WHO/NTD, with input from the WHO Prequalification Programme (PQP), to seek technical support from the United States Pharmacopeia to produce the necessary data that would permit to ascertain whether bioequivalence study requirements could be waived for Praziquantel without compromising its quality.	Study started. Results expected by September 2015.
WHO/NTD, with input from PQP, to arrange a meeting with generic manufacturers to encourage them to submit applications for Praziquantel	Included in 2015 activities.
Urge concerned national drug regulatory authorities to address the quality issues identified by the survey conducted in East Africa and South-East Asia.	Achieved in South-east Asia. Included in 2015 activities for East Africa.
WHO and donation partners to finalize the adverse event reporting form that is currently under final editing and revision.	PDCI finalized a form. Next steps to be discussed.
WHO, national NTD control programmes and other concerned parties to develop a document outlining the peculiarities of preventive chemotherapy that can be used to raise the matter with the European Medicines Agency and seek a different set of reporting requirements for preventive chemotherapy interventions	Achieved. Draft statement being finalized and expected to be released by EMA in the course of 2015.
WHO, national NTD control programmes and other concerned parties to prepare for intensifying training on drug safety monitoring in national PC interventions	Included in 2015 activities.
To support the sustainable production of antileishmanial medicines and ensure adherence to international Good Manufacturing Practice standards, particularly for quality-assured sodium stibogluconate and paromomycin, in collaboration with PQP and other international partners.	Samples for procurement being tested and manufacturing sites inspected in collaboration with WHO PQ. Regular communication with manufacturers and other procurement agencies to ensure sustainable production and availability.
To continue encouraging manufacturers of generic liposomal amphotericin B to undergo prequalification process and strengthen monitoring of treatment outcomes.	No need for PQ, product already approved by stringent regulatory authority.
To continue studies on pharmacology, safety and efficacy of Benznidazole and Nifurtimox, taking into account the geographical differences on Chagas disease and responses to antiparasitic treatment	To be clarified
To implement a network of sentinel centres to collect data on Chagas disease and produce reports in a standardized format.	55 sentinel centres in place. 38 in process of being set up.



Scaling up deworming in PSAC 12 and 13 March 2015, Room E 110, WHO/HQ, Geneva

Day 1

Action point	Responsible, (lead)	Deadline	
Database Access, improvements and			
usage			
UNICEF and WHO to gain access to	Alexei/(Antonio) and	3 April 2015	
respective databases	Richard/(Roland)		
Access to Basecamp by partners to be	Gautam	30 March 2015	
discussed internally and decision shared			
with partners			
UNICEF reporting form modified to	Richard and (Roland)	1 May 2015	
include programmatic indicators			
WHO reporting form modified to capture	Alexei and (Gautam)	3 April 2015	
source of tablets and distribution setting			
and WHO request form modified to			
capture PSAC need			
WHO NTD to prepare recommendation	Azadeh, David A and	20 April 2015	
for partner NGOs on reporting and needs	(Antonio)	_	
assessment/validation			
Determine optimal integration of UNICEF	Richard and (Alexei)	4 May 2015	
and WHO databases		-	
Coordination			
Joint policy brief from WHO-NTD and	Antonio, Azadeh and	20 April 2015	
UNICEF-Nutrition to be sent to all NTD	(Roland)		
focal point in country offices and relevant			
UNICEF staff promoting coordination and			
collaboration on planning and reporting			
WHO-NTD to write a targeted letter to the	(Antonio) and Azadeh	17 April 2015	
NTD focal point in WHO country offices			
21 countries that did not report to WHO,			
connecting them to their NTD counterparts			
and offering them additional support			
Publication			
WHO and UNICEF investigate and	Alexei and (Richard)	10 April 2015	
validate the 2013 data			
WHO and UNICEF to jointly publish the	(Roland), Richard, Azadeh,	19 June 2015	
2013 coverage data for pre-school children	Antonio and Alexei		
Add a paragraph on this meeting in the	All- Completed		
upcoming WER on PCT			
Follow-up			
All action point updates to be reported to	Azadeh and (Antonio)	22 April 2015	
the STAG (21-22 April) through the WGA			

Action point	Responsible, (lead)	Deadline
UNICEF and WHO to identify opportunities for promotion of comprehensive Child Health Days	Antonio and Roland	Ongoing
WHO and UNICEF to review and revise current PSAC STH guidelines	(Azadeh), Antonio, Roland and David M	26 June 2015
WHO to review and revise pharmacovigilance guidelines and carryout regional capacity building for regulators and NTD programme managers	(Azadeh) and WHO PV	Guidelines: 29 June 2015 Regional Capacity Building: TBD
WHO to carryout capacity building for national regulators on Prequalification and ERP	Azadeh and (Denis)	TBD
WHO and UNICEF Supply teams to develop a unified procurement policy and request that all current and prospective suppliers submit for prequalification and in the meantime WHO and UNICEF will enter dossiers of tendering manufacturers to ERP	(Azadeh), WHO procurement team and David M	Procurement policy: 29 May 2015 Basing procurement decisions on ERP: Immediate
WHO and UNICEF supply teams investigate pooling resources and procuring	Azadeh, (Denis), WHO procurement team and David M	1 May 2015
WHO and UNICEF to carryout joint orientation on Prequalification and ERP process for suppliers, procurement agents and donor agencies	Azadeh, Wondiyfraw and (David M)	29 May 2015
Update provided to partners on the status of the International Pharmacopeia chewable ALB monograph	Azadeh	27 April 2015
Joint statement on procurement harmonisation be developed and signed by all partners/donors and circulated to all suppliers	(Azadeh), WHO procurement team, Denis and David M	20 April 2015
Plan a follow-up call next quarter and invite all partners	Azadeh and (Antonio)	6 April 2015
Update STH coalition PSAC work stream on this work	David A	30 March 2015
All action point updates to be reported to the STAG (21-22 April) through the WGA	Azadeh and (Denis)	22 April 2015

Report on the zoonotic NTDs to STAG-NTD 2015

A subset of the neglected tropical diseases are those that can also be classified as zoonotic, i.e. those diseases that can naturally be transmitted from vertebrate animals to humans and vice-versa. There is a renewed interest to approach these diseases that have a human-animal interface in an integrated manner both through PCT and other NTD interventions but also in close coordination with especially the animal health sectors.

As is the case for other diseases there are many other competing priorities, therefore the stance that has been adopted is to start small, to demonstrate success (improved data) to build motivation from the ground up to adopt a national strategy

Since STAG 2014, the following has been accomplished:

- An informal consultation on assembling a framework for the intensified control of taeniasis/cysticercosis launched the start of pilot programmes in Brazil, China and Madagascar. The report and landscape analyses are posted here http://www.who.int/taeniasis/en/. Other countries have shown interest in such a programme. Efforts are underway to identify a minimum critical resource base. The consultation was held in collaboration with OIE, FAO and the International Livestock Research Institute (ILRI) in WHO HQ, Geneva. This is a step towards reaching the NTD roadmap target. Praziquantel (10mg/kg) is the same drug of choice as for schistosomiasis elimination and there may be space to ascertain some donations for intensified control of taeniasis. WHO will try facilitate the acquisition of animal tools and diagnostics.
- The 4th neglected zoonotic diseases meeting took place in November 2014, this was titled from Advocacy to Action and was a turning point in advocating for zoonotic NTDs to promote control activities. Prioritization polls at the meeting coincided with those on the NTD list of diseases with special focus to be given to intensified control of taeniasis/cysticercosis and elimination of rabies in the next few years. The report will be found here http://www.who.int/neglected_diseases/zoonoses/en/
- The aim is to attain close coordination with different sectors in countries, regionally and globally to have additive rather than competitive effect
- The rabies elimination proof of concept project supported by WHO and BMGF in Philippines, Tanzania and South Africa will come to an end at the end of this year. More information is here http://www.who.int/rabies/en/. The main challenge will be in mobilizing support for implementation however, these projects have demonstrated that despite different starting points and contexts elimination is possible. WHO with partners, FAO, OIE, GARC will continue to pursue 'organic' expansion through capacity building and stimulus package that include vaccine. WHO will hold a Global conference with the mentioned partners on 11-12 December 2015 with the following objectives
 - O Disseminate results of the proof of concept for the elimination of dog-transmitted rabies in different settings and explore expansion and sustainability in other endemic areas;
 - Build support and case for investment to progress towards rabies elimination from national, regional, global and other stakeholders including the private sector;
 - Promote a One Health inter-sectoral collaboration approach between the human and animal health and other sectors;
 - Shape forward vision agenda with shared purpose and collective impact in a global strategy for the elimination of dog-transmitted human rabies.
 - Rabies in Americas: the proof of principle that dog rabies can be eliminated on a continent, some loci left: Bolivia, Brazil, Haiti
- WHO will continue to work with OIE, other stakeholders and vaccine manufacturers to optimize the supply and improve the aligned procurement of human and animal rabies vaccine.

Professor Eric Fèvre from the Institute of Infection and Global Health, University of Liverpool has accepted to chair the working group on zNTDs with the task to progress towards the NTD Roadmap and to focus, prioritize and align with other NTD and animal health/food safety programmes. The WG will advance on taeniasis control options, drafting a global framework for rabies elimination, a process for validation of elimination specifically for rabies in consultation with animal health partners and possible options for a maintenance plan for rabies eliminations in countries and regions.

A call for nominations has been posted for this working group http://www.who.int/entity/neglected_diseases/stag_nzd_call_nominations/en/index.html