

# REPORT OF THE SIXTEENTH MEETING OF THE WHO ALLIANCE FOR THE ELIMINATION OF BLINDING TRACHOMA BY 2020

Washington DC, USA, 14-16 May 2012

#### © World Health Organization 2012

All rights reserved. Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

### CONTENTS

ABBREVIATIONS
Executive Summary 6
Introduction
Update on NTD framework development11
Progress report: recommendations of GET1516
Global financing of NTDs: donor perspective20
International Coalition for Trachoma Control Report23
Report: 2012 Trachoma Informal Scientific Workshop26
ITI Report: Zithromax forecasting and progress
Water and sanitation for trachoma elimination
Trachoma in the Americas: an overview
Neglected infectious diseases in LAC
Brazil country report
Colombia country report
Guatemala country report
Mexico country report
Opportunities and challenges: integrated NID action plans in the Americas
Conclusions on presentations on the Americas region
2014-2019 Action Plan for the Prevention of Blindness
Conclusions and Recommendations
Date and place of GET17 meeting61

## **ABBREVIATIONS**

AFE: Antibiotic treatment, facial cleanliness and environmental improvement AIO: Annual intervention objective AMRO: Regional Office for the Americas **BTR: Bilamellar Tarsal Rotation** CDD: Community directed distribution GET 2020: WHO Alliance for the Global Elimination of Blinding Trachoma by the Year 2020 GHO: Global Health Observatory **GSM:** Global Scientific Meeting HKI: Helen Keller International IAPB: International Agency for the Prevention of Blindness ICTC: International Coalition for Trachoma Control **ITI:** International Trachoma Initiative LAC: Latin America and the Caribbean LF: Lymphatic filariasis MDA: Mass drug administration MDG: Millennium Development Goal MoH: Ministry of Health NGDO: Nongovernmental Developmental Organization NGO: Nongovernmental Organization NID: Neglected infectious disease NNN: Neglected Tropical Disease NGDO Network NTD: Neglected tropical disease Oncho: Onchocerciasis PAHO: Pan American Health Organization PCT: Preventive chemotherapy and transmission control PEC: Primary eye care SAFE: Eyelid surgery, antibiotic treatment, facial cleanliness and environmental improvement SCH: Schistosomiasis STAG: Strategic and Technical Advisory Group STH: Soil-transmitted helminthes TC: Technical cooperation TEMF: Trachoma elimination monitoring form

TF: Trachoma follicular TT: Trachomatous trichiasis UIG: Ultimate intervention goal WASH: Water, sanitation and hygiene sector WHA: World Health Assembly WHO: World Health Organization

### **Executive Summary**

- 1. The participants commended PAHO for the excellent job in coordinating and hosting this year's meeting. They noted that holding the meeting at PAHO provided added value on several counts:
  - a) It presented an opportunity to hear from countries in the Americas that have been underrepresented at GET meetings in prior years.
  - b) Having the input of this region was a reminder that trachoma is indeed a global problem; it is not limited to just one or two regions. Likewise, it was a reminder that investigation is still needed to determine whether trachoma is endemic in additional countries, including Bolivia, Peru and Venezuela. (Note: Brazil expressed an interest in continuing to provide TC.)
  - c) Presentations were made by 2 new countries--Guatemala and Colombia.
  - d) Having the meeting at PAHO demonstrates the Americas region's political support for trachoma prevention, control and elimination, adding to the support that was previously demonstrated by the 2009 PAHO resolution CD49.R19.
- 2. Given the success of this year's meeting and the opportunities provided for "lessons learned," it was concluded that while it is necessary to be mindful of meeting costs and logistical challenges, it may be useful to consider holding future GET meetings at other regional WHO offices.
- 3. Endemic countries in the Americas should be regularly represented at GET meetings.
- 4. The progress of integrating trachoma into NTDs is very welcome and is in alignment with the global NTD integration initiative. It is important to remember that SAFE is a four-part strategy for prevention, control and treatment; antibiotics are just one component of SAFE. We must ensure that S, F and E are not overshadowed by A. The WHO scorecard should include all components of trachoma--the full SAFE strategy.
- 5. An expert in trachoma and trachoma programmes should be included among the membership of STAG.
- 6. As some countries are close to being ready to apply for verification of elimination, there is an urgent need to provide formal guidelines from WHO/STAG on what information should be included in a dossier to verify elimination of trachoma, and what processes and channels should be used for submission.
- 7. WHO should include the GET 2020 Alliance stakeholders in the process to develop the trachoma strategic plan for the NTD roadmap. WHO is recommended to use the 20/20 Insight document as a starting point for the strategic plan. The trachoma strategic plan should be completed and incorporated into the NTD roadmap by the end of 2012.
- 8. Although research is already under way in some countries, there is an urgent need to confirm the safety of co-administering Azithromycin with the other drugs used for PCT, particularly those that will be used for extended periods of time. While it is important to include the WHO and the relevant pharmaceutical companies in this process, ITI should lead the research effort.

9. It is imperative that WHO finalize the new single data reporting form by August 2012. Having a single data reporting form will minimize the reporting burden for countries, particularly since the new electronic version of the form will be pre-filled with information from prior

years. Thus, countries will only need to update that information, rather than starting over with a blank form each year.

- a) All countries must provide full and complete information (to the extent it is available) in the WHO data forms each year.
- b) The forms must be submitted in a timely fashion such that they are received by the WHO secretariat by 1 April.
- c) Although the data is from the countries and national MOHs hold primary responsibility for completing and submitting the forms to WHO, all partners—including the national trachoma task force and local WHO country offices and regional offices—have a very important role in helping countries provide complete information.
- d) Countries should submit their completed forms to the appropriate WHO regional office for review several weeks prior to 1 April deadline for submission to the WHO secretariat. The regional offices will be responsible for working with national governments to obtain missing information and clarify any uncertainties before submitting the final versions of the forms to the WHO secretariat in Geneva.
- e) WHO will investigate the feasibility of providing forms in two formats--online and in a spreadsheet file.
- 10. The WHO secretariat should report on progress achieved on the recommendations at each GET 2020 meeting.
- 11. An ad hoc working group should continue to be assembled before each GET 2020 meeting to assist the secretariat in planning the meeting. The next GET 2020 meeting should take into account the evaluation of the GET 16 meeting, and in particular the need for more discussion time.
- 12. Reports from the surveillance working group and the GSM 3 group should be disseminated via the Internet by the autumn 2012.
- 13. The partners from the Alliance should provide assistance as requested for the revision of the Trachoma Programme.
- 14. Managers Guide, which should be completed before the end of 2012.
- 15. There is an urgent need to improve the quality and quantity of TT surgical activity. Partners and national governments are encouraged to step up surgical campaigns and outreach programmes so as to rapidly reduce the number of prevalent cases and to treat the incident cases of TT in a timely manner.
  - a) Partners providing training should screen potential surgeons for visual acuity, manual dexterity, and so on, prior to initiating said training.
  - b) The national MOH should use the WHO document on final assessment of surgeons to certify surgeons for practice.

15. The active participation of representatives of the water, sanitation and hygiene sector (WASH) was warmly welcomed. Presentations by the WASH sector on best practices and how they apply to trachoma control should be included in the next meeting.



### Introduction

The Sixteenth Meeting of the WHO Alliance for the Global Elimination of Blinding Trachoma by the Year 2020 (GET 2020) was held at the Pan American Health Organization in Washington, DC, from 14-16 May 2012.

The objectives of the meeting were to monitor progress towards global elimination of trachoma, exchange information and experiences on the implementation of the SAFE strategy, review partnership opportunities at global and national levels, discuss obstacles and barriers to achieving the common goal of elimination of blindness from trachoma by the year 2020. Particular attention is dedicated this year to the NTD framework, the funding opportunities and strategies, the cooperative work with the water and sanitation sector. A description of the "Scope and purpose" of the meeting is attached as Annex 1.

The meeting was attended by 94 participants, 50 from member states and 44 from international partners, making this the largest meeting of the GET 2020 to date. A full list of participants is attached as Annex 2.

Dr Chad MacArthur (HKI) was elected Chair of the meeting and Dr Rosa Castalia of Brazil was elected Co-Chair. Participants introduced themselves in turn. A number of administrative announcements were made and the proposed agenda was approved and adopted. In an attempt to increase interactivity and participation, a new format was adopted for the meeting this year, in which 3 panelists were invited to comment on the presentations made for each agenda item.

Dr Mirta Roses, Director of the Pan American Health Organization (PAHO), welcomed the participants via a video message, noting that this is the first GET 2020 meeting to be held in the Americas region (LAC). Dr Roses stressed the importance of the Alliance in combating trachoma worldwide and voiced PAHO's support for these efforts. She said that in 2009, the 49<sup>th</sup> Directing Council of PAHO adopted Resolution CD49.R19, in which Member States committed to eliminating or reducing neglected diseases, including trachoma, which is targeted for elimination as a public health problem by 2015. In the LAC region, 50 million people are at risk of trachoma. The disease has been endemic in Brazil, Mexico and Guatemala; it was also detected in 2010 in Colombia, near the border with Brazil, Dr Roses said. However, she affirmed that each of these countries is actively working toward elimination. Dr Roses said that PAHO is addressing trachoma along with other neglected tropical diseases (NTDs) in an integrated, systematic way that involves other sectors, as well. Dr Roses closed her remarks by highlighting the region's success in combating NTDs, including elimination of leprosy in 34 out of 35 countries, elimination of transmission of Chagas disease in 14 countries, donor screening for Chagas in 20 out of 21 countries, elimination of lymphatic filariasis in 3 countries, and the interruption of Oncho transmission in 10 out of 13 foci in LAC.

Dr Jon Andrus, PAHO Deputy Director, also welcomed the participants. He said that PAHO would work to eliminate blinding trachoma by supporting the SAFE strategy, including environmental improvement measures such as vector control and access to safe water, as well as good health and hygiene practices to keep children's faces clean, administration of antibiotics and eyelid surgery. He pointed out that the fight to eliminate trachoma represents a way of reducing inequities in the region, since it affects the poorest populations exclusively. Dr Andrus also said that trachoma is one of the neglected infectious diseases (NIDs) that the region seeks to eliminate in the coming years. This work is supported by a series of resolutions that PAHO's Directing Council has adopted since 2008,

including resolutions on vector control and the elimination of 5 NIDs (Oncho, schistosomiasis, trachoma, lymphatic filariasis and soil transmitted helminthes). PAHO has also been supporting countries in the development of national inter-programmatic, inter-sectoral integrated plans for the prevention, control and elimination of NIDs. It has also helped countries take advantage of economies of scale in purchasing medications, reagents and supplies necessary for their NID programmes. PAHO has coordinated regional advisory bodies such as the Regional Programme Review Group for lymphatic filariasis (LF), and it is also supporting countries in efforts to verify elimination of NIDs.

### Update on NTD framework development

Presenter: Dr Dirk Engels, Coordinator, Control of Neglected Tropical Disease, WHO Panel: Dr Paul Emerson, Trachoma Control Program Director, The Carter Center; Dr Upendo Mwingira, NTD Coordinator, Ministry of Health and Social Welfare, Tanzania; and Dr Boureima Sambo, Regional Advisor for the Prevention of Blindness and Deafness, WHO/AFRO.

Dr Engels began his presentation by saying he would focus on constructing an integrated intervention for a number of prioritized neglected infectious diseases.

#### **Meeting on the London Declaration**

On January 30th, 2012, an advocacy meeting on NTDs took place in London. At that meeting, WHO Director-General Margaret Chan launched the NTD Roadmap for Implementation, which lays out country, regional and global targets for the prevention, control, elimination and eradication of specific NTDs up to the year 2020. This roadmap will guide the WHO in scaling up NTD interventions over the next 8 years. Also at this meeting, a number of new pledges for drug donations were made, and a document known as the London Declaration was signed by participants from Private sector, NTD partners, NGDOs and international organizations, committing to work toward the targets described in the roadmap document.

At the London meeting, PCT was endorsed as one of the key strategies for accelerating work to address the global impact of NTDs. Integrating chemotherapy efforts is considered essential for reaching all the elimination targets listed in the roadmap, including global elimination of blinding trachoma, lymphatic filariasis, leprosy and human African trypanosomiasis by 2020; Oncho in Latin America and Yemen by 2015, and by 2020 in some African countries; schistosomiasis in the Eastern Mediterranean region, the Caribbean, Indonesia and the Mekong River basin by 2015, and in the Americas, the Western Pacific and in some countries in Africa by 2020, particularly given the new pledge of 250 million praziguantel tablets/year from Merck KGaA.

#### **Defining terms and processes**

Due to some current vagueness in the terminology around elimination, WHO/STAG, in a position paper prepared in April 2012, proposed clarifying and harmonizing the definitions of the following terms: control and elimination as a public health problem, elimination, eradication, and extinction. The consensus of that body was to use the term 'control' to mean reduction of disease incidence, prevalence, morbidity and/or mortality to a locally acceptable level; and when control is highly effective, it may also constitute 'elimination of the disease as a public health problem' (i.e. an advanced form of morbidity control that implies reduction of the burden to a predetermined or quantified level, such that the disease is no longer considered to be a public health threat). 'Elimination' was defined as interruption of transmission, or zero incidence of the disease. 'Eradication' refers to interruption of transmission of the pathogen at the global level, and implies that no further interventions are required because both the disease and its causing agent have been

wiped out globally. Unlike in the case of disease control or elimination, eradication of a disease and the pathogen that causes it requires following a certification process. 'Extinction' means that the disease and causing agent no longer exist, both in nature and in the laboratory.

Two formal processes were also proposed in the WHO/STAG position paper: verification (for elimination) and certification (for eradication). Verification of elimination can be done at an area, country, or regional level. It requires assessment against objective criteria by an independent oversight committee, and is recorded in a formal manner. While verification of elimination implies that disease transmission is no longer occurring, it may or may not be an end point because the risk of reintroduction may still be present. Certification of eradication is done only at the global level; it is a formal process involving a global commission.

#### Scaling up preventive chemotherapy

In regards to PCT, the goal is to treat 1.9 billion people in 122 countries with the complete package of drugs for all required diseases . A third of that number—approximately 600 million people—require PCT for 3 or more diseases. These figures were recently published in the Global Epidemiological Record. Current global coverage rates for PCT indicate that approximately 700 million have been treated for at least one disease as of 2010, or about a third of those who need treatment. However, most of those treated have not received the full package of drugs that they need. In addition, treatment levels have barely increased over the past three years.

Setting priorities for scaling up PCT interventions is a key task for the NTD/PCT Unit at WHO. Three strategic plans have been developed for LF, SCH and STH; plans are expected for trachoma and Oncho by the end of 2012. A combined PCT milestones chart will be developed to identify specific targets (such as mapping, per cent of PCT coverage, etc.) that should be met to achieve NTD Road Map targets for all the PCT diseases by 2020. Seventy percent of the global disease burden resides in just 10 countries: India, Indonesia, Nigeria, Bangladesh, the Democratic Republic of Congo, Ethiopia, the Philippines, China, Myanmar, and the United Republic of Tanzania; and the top 3 (India, Indonesia and Nigeria) account for 50%.

#### Areas for integration

Areas that offer opportunities for integration across all five PC diseases include advocacy efforts, mapping, training, drug logistics and supply chain management, monitoring and evaluation, and health education. Other tasks may offer opportunities for partial integration among two or more diseases, including social mobilization, drug distribution, and other interventions (water and sanitation, morbidity management, vector control).

In supply chain management and drug logistics, there are a number of options for integration. A few years ago, WHO has set up a supply chain for the donation from GSK; now, it is expected to handle 3 extra donations from J&J, Eisai, and Merck KG&A. The country programme managers are much in favor of integration in this area. The 3 key tools for integrating this process are the tool for integrated planning and costing (for the annual work plan), the joint request form and the joint reporting form. These tools are all available online. The goal is to separate the logistics of drug supply, which should be handled by the WHO secretariat, from programmatic aspects, which are the purview of the

regional offices and the countries. In addition to a joint process for the four drug donation programmes that are channeled through WHO, WHO is proposing different (potentially sequential) scenarios in regards to ordering and shipment of azithromycin and ivermectin.

WHO is proposing a scorecard for monitoring PCT coverage, containing three categories of key performance indicators: programmatic indicators pertaining to national programme capacity, epidemiological indicators pertaining to PCT impact, and operational indicators regarding coverage. A traffic light-like color scheme would be used to indicate progress or lack thereof for the various indicators, by disease and by country.

The scorecard will eventually be auto-generated from data provided on routine yearly reporting forms; it is currently a work in progress. Some areas that require improvement are: some indicators will need to be removed, while others will be added (such as on morbidity and disability control and drug efficacy monitoring). Work will also continue on further building an integrated databank and information platform.

#### Recommends from the 2012 WHO/STAG meeting on NTDs

- 1. Drug efficacy monitoring and capacity building should become a routine part of monitoring and evaluation (Ma&) for integrated NTD programmes, and M&E should be incorporated into programmes in the field
- 2. A global working group should be created for capacity building that would coordinate all interventions in that area.

### **Panel Discussion**

Dr Paul Emerson reminded the participants that under WHA 51.11, SAFE - eyelid surgery, antibiotics, facial cleanliness and environmental improvement - was recommended as the best integrated strategy for controlling trachoma. Antibiotics and PCT have received more attention than the other areas of the strategy, however. It will be important to include all the elements of the strategy in country and global planning efforts and in the scorecard.

Dr Emerson said that proxy targets for the elimination of trachoma had been agreed upon over the course of three scientific meetings. Since measuring blindness is very difficult due to the multi-year, progressive nature of the disease, the scientific community recommends the following elimination targets:

- Less than 1 case of trichiasis per 1000 population
- <5% prevalence of TF in 1-9 years old in the sub-district (as morbidity and transmission targets, respectively)

He also stressed the importance of routine monitoring and evaluation of other aspects of the programmes.

Dr Sambo agreed with Dr Emerson regarding the need to discuss integration in programme areas other than PCT. He said that integration had been widely discussed at a workshop in Africa in the past month, including a primary eye care intervention known as PEC, which is being done in collaboration with Sight Savers International. This intervention extends far beyond simply preventing blindness; rather, it takes a global health approach to eye care.

Dr Sambo also said that while having different processes in place at each level—control, elimination, and eradication—is desirable, it is also important to discuss the major challenges that have been identified at the country level around integrating NTD approaches and interventions, as well as the challenges in sustaining such interventions. What are the best practices in regards to integration at the country level?

Dr Engels said that some of the challenges he had observed in programme integration efforts for interventions at the country level include prioritizing and efficiently allocating resources from all sources (including country resources) to meet the various programme goals. Another big challenge is to find ways to engage other sectors, especially the water and sanitation sector.

Dr Sambo also stressed the importance of monitoring impacts on the ground in the countries as regards to integration and the processes set up to promote integration. Such monitoring will also help elucidate the challenges in the field surrounding integration.

Dr Engels said that it will be important to monitor the impact of linking NTD control efforts with the water and sanitation sectors, as well as the impact of other (non-PCT) interventions.

Dr Mwingira welcomed the news from WHO regarding the plans to develop forms for joint reporting and the annual work plan. She also welcomed WHO's efforts to clarify terminology and processes, since in the past, programme managers have not always been clear as to whether elimination had been achieved in certain areas of their countries.

She underscored the need for including additional indicators—beyond antibiotics—on the scorecard for all elements of the SAFE strategy. As regards to the roadmap, she asked for more clarification regarding elimination in certain areas of a country, particularly in reference to schistosomiasis. Dr Engels indicated that schistosomiasis (SCH) is scheduled for discussion in the next WHA and that elimination is on the agenda for SCH. He also indicated that more attention needs to be given to the drug components for that disease.

### **Open Discussion**

Several participants echoed the comments of the panelists regarding the need to integrate all components of SAFE in the field, not just PCT, and that indicators pertaining to surgeries and other elements of the strategy should be included in the scorecard. Dr Engels indicated that it is important to keep sending the message emphasizing that trachoma must be addressed in a comprehensive way, using the SAFE strategy. He said that now there is more emphasis in WHO/STAG on adding additional components to the scorecard and integrating them across board. For example, morbidity and surgeries will be included on the scorecard for trachoma and lymphatic filariasis.

Concern was expressed regarding fragmentation around trachoma beginning at the level of the WHO, given that the disease is lagging behind in PCT, in reports and on the scorecard.

Dr Engels responded that the reason for the lag on the scorecard with respect to trachoma is that the scorecard is fed by the NTD reporting database. However, obtaining the missing information can be included in the milestone chart. Dr MacArthur commented that the data on trachoma exist, and can be integrated into the WHO reporting forms and scorecard. He added that the International Coalition for Trachoma Control had presented a trachoma roadmap last year and suggested that it be integrated into the overall NTD strategic plan.

One participant commented that more information needed to be gathered regarding co-administering azithromycin with other NTD drugs. However, a doubt was expressed as to whether there really is a need for the trachoma programme to monitor drug efficacy, since drug companies test the drugs. Dr Engels acknowledged that drug efficacy may not be as important for trachoma, compared to other NTDs, since the intervention is shorter.

There was some discussion regarding priority countries. Some were of the opinion that priority should not depend on the size of a country, but rather on the people at risk. Dr Engels responded that interventions should start at the same time in all countries and should focus on people most in need. However, he pointed out that reaching the 2020 global elimination targets will require immediate interventions in the biggest countries, which present unique challenges due to their size.

A suggestion was made to include a trachoma expert into the members of STAG.

### **Progress report: recommendations of GET15**

Presenter: Dr Silvio P. Mariotti, Medical Officer, GET 2020 Secretary, WHO

Panel: Professor Sheila West, El Maghraby Professor of Preventive Ophthalmology, Dana Center for Preventive Ophthalmology; Mr Danny Haddad, Director, International Trachoma Initiative; Dr Seiha Do, National Coordinator, Prevention of Blindness, Cambodia

Dr Mariotti reported on the actions taken by the WHO in response to the recommendations made at the GET15 meeting. The first recommendation was to ensure that F and E activities are incorporated as a full part of the SAFE strategy, as well as to ensure that water and sanitation and behaviour change programmes are included in national trachoma action plans and that partnerships are developed to deliver the services that are needed. A panel on water and sanitation has been set up to continue the discussion and implement actions in this area. Members of the panel include Brazil, Burundi, Central African Republic, Chad, PR China, Guatemala and Solomon Islands.

The fourth recommendation was in regard to the alignment of data from national programmes, NGOs and other partners in a global database for policy planning and discussion with the WHO and member states. The WHO was requested to inform the members of the Alliance when the WHO Global Health Observatory (GHO) becomes available online. The GHO is the tool used to share and analyse data from the countries.

A new electronic reporting form format was developed in collaboration with ITI, in an effort to facilitate data transfer to the GHO. It takes into account all the components of the SAFE strategy. Data from the forms have already been entered into the GHO. The NTD department is also finalizing the single NTD country reporting form, which will include trachoma.

The new electronic format was piloted this year and this format will be used from now on to facilitate provision of complete information from the countries and the partners. The data reported in the electronic forms will be cross checked with international partners to ensure consistency, so that there is a single set of numbers used and shared by all stakeholders. The GHO will also have information on progress towards the elimination goal by country, based on the targets set by the countries themselves.

The fifth recommendation was to quickly publish the report of the 3rd Global Scientific Meeting (GSM3), so as to facilitate future planning based on its recommendations regarding survey methodology and certification of elimination. Dr Mariotti noted that the GRC had only conditionally approved those recommendations because evidence still needs to be provided in support of the same in order to confirm that the recommendations are working for surveillance, elimination and certification of elimination. He added that the new trachoma control manual will have information from the first two documents, and that the WHO is looking for partners to complete the work as quickly as possible.

Regarding the sixth recommendation on NTD integration, Dr Mariotti reported that blinding trachoma is now clearly included in the administrative structure of the NTD programme at WHO. The eighth recommendation—publishing the meeting report within eight weeks of having the meeting—has been implemented.

An ad hoc committee to work with the WHO to format and accompany the work of the Alliance has been created and is already collaborating closely with WHO, in response to the ninth recommendation. This committee has helped to organize the meeting this year.

A trachoma advocacy tool (2020 InSight) was finalized and distributed at the meeting by ITI, as per recommendation seven.

A trachoma template action plan template was developed per recommendation 2, to analyse the current state of national programmes, and to identify steps that need to be taken leading up to 2020 to ensure that national objectives are met for the elimination of blinding trachoma. This report template will provide numbers on how many countries have plans, how many are making plans, numbers of surgeries, and so on.

Dr Mariotti identified as future work the completion of the strategic plan for the elimination of blinding trachoma, due in autumn 2012. It will include a compendium of the roadmap to help countries and GET 2020 Alliance members to monitor progress toward the goal.

WHO will continue to work with the countries to complete the forms and collect missing information in June and July 2012. Likewise, it will incorporate 2011 data into the GHO in August 2012. It will further refine the TEMF and continue efforts to integrate reporting on NTD into a single country form in September 2012. It will work with STAG members to develop an elimination framework that is relevant to trachoma. Also in September 2012, it will finalize *Interim advice on post-treatment surveillance*. By October 2012, it expects to finalize the second edition of the Trachoma Control Manual, which will include the GSM3 recommendations.

At the end of 2012 through March 2013 and in collaboration with regional offices, focal points and international partners, WHO will work on NTD integration and control in China, Mexico, Myanmar, Oman, and Vietnam, all of which have initiated trachoma control efforts in the past 12 months. It will continue its collaboration with international partners on an ongoing basis.

Dr Mariotti concluded his presentation by acknowledging the accomplishments to date in regard to data alignment, the data collection process, collaboration on NTD control, GRC approval, advocacy and reference documents, the GHO, and technical support to the countries. He said that the positive, productive collaboration with established partners has been essential in this work. He expressed his hope that new partnerships would be developed with influential players in the NTD arena. The cooperation with PAHO has been extremely fruitful. The ad hoc working group has brought new ideas to the development of the structure and agenda of the meeting. This collaboration will be even more important in the future, as the workforce in WHO Geneva has continued to shrink.

#### **Panel Discussion**

Mr Haddad remarked on the great progress that has been achieved since last year, with trachoma leading the NTD partnership. He highlighted the importance of the move to a single, reporting form, which will serve as the annual report for ITI on Zithromax donations. He invited the national programme coordinators to provide their input on the form in order to further improve it, given that the forms need to be filled out by the national trachoma task force.

He mentioned the creation of a central database by the ICTC members, which is expected to harmonize the numbers that everyone is using. He said that this effort should be lead by the national trachoma task force, who are the ones that will be providing the data.

He said that his organization would be happy to work with WHO on the new trachoma control manual; they have had the experience of developing the "Zithromax in the elimination of blinding Trachoma: A Program manager's Guide", which is currently up for renewal.

He mentioned that much progress had been made in the area of trachoma action plans. At last year's meeting there had been one presented by Kenya; this year, plans were also presented by a number of African countries, including the CAR, Chad, South Sudan, Cameroon, Mozambique, and at least one other country.

Professor West welcomed the progress updates regarding the recommendations from last year; she added that the recommendations from this meeting will likewise become part of the action plan for next year.

In regards to surveillance and verification reports, she suggested they be distributed via the web, since they are valuable inputs for helping countries with planning.

She voiced her support for the suggestion regarding having a trachoma expert appointed to STAG.

Dr Seiha welcomed the new availability of the online reporting form, as well as the trachoma control guidelines that will be released in the coming months.

Cambodia expects to eliminate trachoma by 2015, and Dr Seiha is awaiting the WHO elimination action plan to assist his country through that process. Cambodia will also require technical assistance from WHO as it goes through the elimination process, and he expects that other countries such as Laos and Vietnam would benefit from such technical assistance, as well.

#### **Open Discussion**

Dr Choudhury said that little progress had been made in regards to the surgical component of SAFE. He said that to achieve better outcomes in regards to blindness, more progress is needed in this area; and he suggested prioritizing that component and focusing on the countries with the highest burden. He also said that more partners are needed in the EMRO region for this component, particularly in countries such as Egypt, Sudan and Yemen.

Dr Hammou asked which countries had successfully filled out the forms. He also requested further information about the process and procedures for elimination.

Dr Krishnan said the Government of India says that trachoma is not a public health issue, yet India has the highest NTD burden in the world. India has finished the second round of mass drug administration (MDA), and the third round is scheduled for October. It will be followed by a rapid assessment. India is continuing to work toward elimination by 2020, using the 5-year plan that has been developed for this purpose. The last survey was done in 2006-7; as such, the country intends to do and report the results of a trachoma survey this year. He expects to have more information available to share in this regard at the meeting next year.

Dr Nwobi thanked both Dr Mariotti and his team and ITI for helping his country fill out the form, although this is still a work in progress, since several issues arose during the process. However, there has been progress made by moving the form from reporting only trachoma to reporting on NTDs as a whole.

Dr Resnikoff also welcomed the new single data reporting form for trachoma and the other NTDs. As an international partner, his organization will make sure to use only this form for reporting data.

He asked a question regarding the process to verify elimination: when the document is ready, will help be provided to countries in green [on the scorecard] to assist them as they go through the process? Doing this and documenting the experiences of those countries may facilitate the process for other countries, he said.

Dr Mariotti said that the work on the verification document depends on the procedures set in the STAG, which meets every two years. He said that when STAG gives his unit the green light to move forward with the verification process, he expects to pilot it in 4 countries, 2 of which have already submitted full documentation on their forms. He added that given the limited workforce in Geneva and in the regional offices, international partners will be key players in making sure the work gets done, along with the countries themselves.

Dr MacArthur said that several recommendations were already being made: refining the verification process; making sure that countries receive information through the web; working with countries that are ready to proceed with verification to help refine the process for everyone; and having a trachoma representative appointed to the STAG.

## **Global financing of NTDs: donor perspective**

Presenter: Simon Bush, Director of African Alliances and Advocacy, Sight Savers International

Panel: Angela Weaver, USAID; Gregory Anderson, Program Officer, International Programs, Conrad & Hilton Foundation; Dr Sujaya Krishnan, Joint Secretary, Ministry of Health and Family Welfare, India

Mr. Bush said that according to the ICTC 2020 INSight document, 14 countries carry 80% of the burden of trachoma, with regards to both the active disease and the backlog for surgeries. These countries are: Burkina Faso, Ethiopia, Sudan, Southern Sudan, Guinea (Conakry), Kenya, Mozambique, Niger, Nigeria, Pakistan, Senegal, Tanzania, Uganda and Zambia. He added that Brazil, China and India were not included in the analysis of the 2020 INSight due to the high degree of uncertainty regarding the situation in those countries; however, some estimates put the number of people living in endemic areas at >750 million; and the number of TT cases at some 2.8 million.

He said that the costs to deliver the interventions are also known in areas with confirmed endemicity, the costs are estimated at \$430 million. If 50% of districts with suspected endemicity are confirmed, the additional costs will be approximately \$748 million. Unit costs have also been set for activities including mapping, surgery, and support for facial cleanliness (F) and environmental interventions (E).

The countdown to 2020 instills a sense of urgency, since all programmes need to be operating at full scale in 2015 to meet the goal. This means that mapping has to be completed before 2015; currently, there are 1300 districts worldwide that need to be mapped. We also need to look at expansion of control operations in other countries beyond the 14 mentioned above. We need to increase our activities in the areas of surgery and collaboration with the water, sanitation and hygiene (WASH) sector.

International partners will be important in financing the global scale-up efforts. Advocacy with these partners is very important, as well, and must be done quickly and effectively. In this regard, the message should be that plans for scale up are in place already, we need help to implement it.

The London NTD meeting co-hosted by the Gates Foundation and the UK Coalition against NTDs held in January 2012 was unique because the people in the room were those who have the capacity to make a difference. In addition to the signing of the London Declaration and the launch of the WHO NTD Roadmap, big commitments were made to combat NTDs by bilateral and multilateral donors, private foundations, and pharmaceutical companies, including organizations such as DFID, the Gates Foundation, and the World Bank, four pharmaceutical companies (Glaxo Smith Kline, Merck KGaA, Eisai, and Johnson and Johnson) as well as non-traditional donors such as the United Arab Emirates.

He shared a letter that DFID sent to Sight Savers International in May 2011, in which DFID Minister Andrew Mitchell wrote, "We know that backing NTDs is a good investment in development terms. We have also found that where NTD programmes are integrated, they contribute to the broader goal of strengthening health systems in country."

SSI believes that integration of, and engagement with, NTDs will facilitate work towards the elimination of NTDs that cause blindness, specifically trachoma and Oncho. The elimination agenda

for blinding trachoma is ambitious yet achievable, he said. However, it requires full funding for all elements of SAFE, as well as partnerships and implementation.

#### **Panel Discussion**

Ms. Weaver said that the information presented regarding the needs and the current gaps is extremely important, since limited resources are available for combating NTDs, including trachoma. No single donor or partner can support every need in this space; thus, coordination of efforts becomes critically important because there is no room to duplicate efforts.

We need to keep our focus on country needs and gaps. While it is informative to see the global perspective, however, country-level planning is really critical for meeting the 2020 targets.

USAID support for NTDs began in 2006-7, and focuses on taking an integrated approach to NTDs, especially in the area of PCT, which includes the distribution of azithromycin for trachoma. USAID support has focused on the introduction and scale-up of MDA, as well as support for ministries of health and education, to help them implement their national NTD programmes. Although USAID has been focusing heavily on MDA, she said, this focus has enabled scale-ups, which in turn have helped identify the gaps that exist in other areas of SAFE within the countries.

Donors need to remain flexible regarding how they invest their resources, she said. For example, in The United Republic of Tanzania, USAID, DFID and other donors are considering initiating support for surgery, which is a new area for USAID. However, the ability of donors to make flexible investments depends on good planning at the country level, which requires having partners in place at the country level in order to make solid plans on annual basis.

Mr. Anderson said that the Conrad Hilton Foundation has provided \$40 million over its history in support of trachoma programme. Currently, they are considering how to best spend the small amount of available resources, looking at what has been done so far and what they believe they can do. They have supported all elements of the SAFE strategy, and they are considering reallocating their support for each of the four elements.

Mr. MacArthur added that the unique advantage of the funding from the Conrad Hilton Foundation has been its multi-year nature, as well as its flexibility in funding all four elements of the SAFE strategy.

Dr Krishnan said she was surprised that India, Brazil and China were not included in the 2020 INSight report. She said that the data is available in her country. In India, there are only three districts that are endemic with TF of > 10% (not 12, as had been reported). Surgeries are being done in three of the six endemic areas for TT; surgeries are extremely important and the need for them cannot be over-emphasized. There are also several recurring cases of trichiasis.

Water and sanitation is a very important consideration in India, she said. The data she has available are that 94% of households have access to clean water, and 77% have access to sanitation systems. India welcomes global partnerships in the area of WASH, not just for India, but for all the countries present at this meeting. It would be important for the partnerships to address not just wells, but other parts of WASH, as well.

#### **Open Discussion**

Dr Hammou said that blindness from trachoma requires mobilization not only through NGOs, but also by countries. The same level of importance should be accorded to all four components of SAFE, which implies the need for an integrated funding strategy. He asked how countries can access the funding for all the components.

Dr Choudhury said that some countries still do not have a strategic plan, such as Afghanistan Egypt, Pakistan and Yemen. He added that developing a plan is good idea, but implementing the plan is more important. Something needs to be done to help the countries that have not come forward with data on the burden; partners are really needed to help them. He also asked how much funding is available to support these countries.

Dr Resnikoff said that it is important for the Alliance to understand the big picture and not only look at specific countries and components, especially when discussing resource needs. He reminded the participants about the situation of Onchocerciasis (Oncho), where estimates of treatment requirements jumped from 50 to 100 million after mapping was completed. He expressed concern about the countries like Chad, which are just starting the process. With so much information still not known in these countries, the situation with ONC could also happen with regard to trachoma.

He asked if there were a way to map potential donors. He noted that some donors may be more attracted to certain countries and components than others. Mapping donations would help identify these gaps in funding, and would also help to distribute resources more evenly across countries and programmes.

Dr Emerson said that district level data is available for over 1003 districts; and we know that treatment entails the use of the full SAFE strategy. In addition, a sizeable proportion of endemic areas is already receiving the full strategy: some 350-400 districts out of the 700 or so endemic areas that need it. It is not necessary to focus on what we do not know, he said, since we do know so much already.

### **International Coalition for Trachoma Control Report**

Presenter: Mr. Paul Emerson, Chair, International Coalition for Trachoma Control, and Director, Trachoma Control Program, The Carter Center

Panel: Dr Martin Kollmann, Senior Advisor for Neglected Tropical Diseases, Christoffel Blinden Mission; Dr Abdul H. Choudhury, Regional Advisor, Control and Prevention of Blindness and Deafness, WHO/EMRO; Dr Sanoussi Bamani, Coordinator, National Blindness Program, Ministry of Health, Mali

The International Coalition for Trachoma Control (ICTC) is a group of NGOs, donors, and academics who share a common commitment to eliminating blinding trachoma and to implementing the SAFE strategy in endemic countries, Mr. Emerson explained.

ICTC members engage in the following activities:

- 1. Advocacy for the SAFE strategy and ensuring that trachoma and the SAFE strategy are incorporated in WASH, NTD programmes, and public health forums.
- 2. Information sharing for the purposes of increasing efficiency and avoiding duplication of efforts
- 3. Collaboration in ways that capitalize on the strengths of each partner and pool together technical and logistical expertise for strategic funding partnerships and to support the countries in their efforts to eliminate blinding trachoma.

ICTC is one of three large NGO networks that are working to integrate health interventions and foster collaboration around the work of eliminating NTDs. (GAELF and the NGDO group for Oncho are the other two.) The Neglected Tropical Disease NGDO Network (NNN) was formed in 2009 to provide a forum for all the organizations working to control or eliminate Oncho, lymphatic filariasis, schistosomiasis, soil-transmitted helminthes, and trachoma.

In 2011, preliminary estimates of ICTC member support for the SAFE strategy in countries around world total: over 134,000 surgeries, over 45 million doses of antibiotics, facial cleanliness and health education in 285 districts, and provision of over 307,000 latrines in *the* environmental improvement arena. The organization also recently published the 2020 INSight document, which is available online in English and French.

More information on the work of the ICTC and the NTD-NGDO Network, respectively, can be found at <a href="http://trachomacoalition.org">http://trachomacoalition.org</a> and <a href="http://trachomacoalition.org"/>http://tr

#### **Panel Discussion**

Dr Kollmann commented on the sense of urgency that unites the ICTC members, and that drove the production of the trachoma action plan and the 2020 INSight document. He said that the group welcomes new members and the sharing of best practices.

He noted that most of members of ICTC focus on surgeries, antibiotics, and facial cleanliness. They group needs more members with expertise in the area of environmental improvements. He concluded by saying that he expects the ongoing consultation process and collaboration between members will continue to strengthen ICTC.

Dr Emerson responded by saying that an ICTC meeting had planned, after this meeting, to take stock of the recommendations from the countries in this meeting, and to discuss how NGOs can best respond in support of the countries.

Dr Choudhury said that the collaboration among ICTC members is clearly strengthening the existing trachoma effort; however, he believes that the organization can do more still. He stressed the need to work at the country level; and he asked which ICTC partners are working in Egypt.

He noted that WHO is willing to coordinate with ICTC and other organizations; and he requested support from ICTC in implementing national plans and sharing NTD success stories.

He welcomed the news that surgeries are increasing in recent years, including 2011. Finally, he said that he hopes ICTC will help push the global trachoma control effort forward under the NTD umbrella.

Dr Bamani said that in Mali, there is a national group of partners that meets monthly on trachoma prevention efforts. He indicated that the partnership would not be possible without the support received from ICTC. These regular working group meetings are an ideal framework for getting closer to elimination by 2015.

He said that effective cooperation depends on the ability of partners to be flexible in providing support where needed and making funding available. As Mali gets closer to elimination, more resources are required; thus, resource mobilization is an area where Mali needs the support of the working group of partners. The additional resources will allow the country to target its activities in various TT endemic districts, and to find new cases of TT, which are often hard to identify and address.

He expressed appreciation for the funds received from USAID, which helped finance three rounds of MDA and which have helped the country reach its target of elimination. However, Mali still has a number of districts that are endemic for trachoma; and it has a backlog of surgery cases. He said there are an estimated 2500 cases of trichiasis in Mali.

#### **Open Discussion**

Dr Hammou thanked the IAPB-Italy NGO, which has helped Morocco get through a difficult period, allowing the country to conduct a survey in 2009, and to benefit from expert evaluations in 2008-2010.

Dr Sarr noted that many countries are at different stages in their efforts to prevent, control and eliminate trachoma, meaning that the partners must tailor their involvement according to local needs and conditions. Money is distributed differently in different countries; not all countries have the same framework of partners that Mali has. What can countries do to strengthen partner involvement and construct a framework on the level needed to effectively contribute to trachoma elimination he asked

Dr Emerson responded that as regards the situation in Senegal and Morocco, ICTC would like to work with the governments as active partners and members of the national trachoma task forces in those countries. ICTC members can work to energize task force; empowering the task force has the effect of empowering the national programme coordinator, which is what occurred in Mali when the partners worked together to support the prioritization of trachoma in that country. ICTC has had similar experiences in other countries.

Another participant asked how much has ICTC done in the way of advocacy with national governments.

Dr Emerson responded that when a partnership arrangement has been formed between ICTC and a country, ICTC can work with the national programme according to its specific priorities. Advocacy can be one such priority. The goal of ICTC is to support national programmes, not work in parallel with them.

### **Report: 2012 Trachoma Informal Scientific Workshop**

Presenter: Dr Beatriz Muñoz, The Dana Center for Preventive Ophthalmology and Chair, Trachoma Informal Scientific Workshop

Panel: Professor Sheila West, El Maghraby Professor of Preventive Ophthalmology, Dana Center for Preventive Ophthalmology, Dr Juan Carlos Silva, Regional Advisor, Prevention of Blindness and Ocular Health, PAHO; Dr Boubacar Sarr, Coordinator, National Blindness Prevention Program, Senegal

The trachoma scientific informal workshop (TISW) was held at Johns Hopkins University on May 11, 2012.

The evaluation of surgery outcomes tends to focus on trichiasis. However, it is also important to consider patient satisfaction with the surgery, which requires communicating clearly about the benefit to the patient and advocating for community acceptance. It is also important to discuss trichiasis recurrence and anomalies in the shape of the eyelid after surgery.

Several community-level surveys were done at the start and end of the control programme, aimed at children under age 10 (the high-risk population). The Carter Center conducted broad research in a number of African countries and found TF prevalence is significantly lower in children who attend school, compared to those who do not. Thus, it is recommended that evaluations continue to be done in communities instead of in schools, so as not to underestimate prevalence.

Dose based on patient height was also discussed at the meeting, and a table was produced that gives general recommendations in that regard. However, this table is a reference that only provides general guidance. The actual dose that should be used depends on body shape and composition, as well, as well as whether tablets or liquid suspensions are being given. In this regard, it is important to calibrate and standardize the instrument used to measure height, as well as to train health staff in its proper use.

The SAFE strategy should be broadly used and should cover large geographical areas. Countries should prioritize areas with high prevalence, as doing so also helps to protect areas with lower prevalence. When families move from areas of high prevalence to lower prevalence areas, they in introduce the risk for re-infection. A surveillance system should be put in place in such areas to monitor the risk of infection.

It is recommended that MDA be given for three years in areas where TF prevalence is >10% before re-survey. It should also be given to the entire district in areas that report having sub-districts with prevalence >10%, according to WHO guidelines.

#### **Panel Discussion**

Professor West said that TSIW is a vigorous forum for discussions regarding research; however, here it is only possible to present meeting highlights. It is worth noting that there are many alternative ways

to administer azithromycin. Also, additional evidence now supports the administration of at least three rounds of MDA in areas with >10% prevalence.

Dr Silva noted that recurrence of trichaisis has been a problem; and that it is difficult to standardize a methodology to ensure success from the first surgery. If the first surgical experience in a community is not a good one, it is difficult to convince other patients to come. A system is needed to train medical staff so as to avoid unsuccessful surgeries. As regards baseline surveys, two countries are doing community-level surveys in LAC currently, and one will do a follow-up after one year.

Dr Sarr said that in regards to surgery, he believes patient satisfaction levels are of the utmost importance. When complications occur, it is important to investigate whether the problem is with the method or the surgeon. There is a need to strengthen surgical capacity so that all surgeries will be performed correct surgical conditions by well-trained surgeons. This will help reduce the number of occasions when people refuse surgeries. He added that he supports the recommendation to do community-based surveys as opposed to school-based surveys, since it is well known that preschool-aged children tend to be at high risk for trachoma. He asked whether it is feasible to target children ages 6 months to 5 years for MDA.

#### **Open Discussion**

Dr Hammou said that it is important to be aware of school attendance rates in countries that are conducting school-based surveys, since there is less selection bias in districts with high attendance. He also said that reduction of active trachoma prevalence requires monitoring prevalence of TF, which must be done at the community level to be truly representative. He suggested the importance of monitoring any impact on other, unrelated health concerns (such as respiratory problems, etc.).

The problem regarding refusals can be addressed by clearly explaining the objective of the surgery to patients. They need to be aware that the surgery is intended to prevent further degradation of the eyesight; it will not improve visual acuity.

Dr Sambo suggested that research be conducted regarding the move from a single disease approach toward integration of NTD control. It would be a good idea to demonstrate how the integrated approach, and trachoma in particular, strengthens overall country health systems and improves the entire scope of eye health.

Dr Emerson said that the data in the Carter Center study came from population-based surveys in Mali, Nigeria and several other countries in Africa. Children were asked about their daily activities, including school attendance. Both school attendance rates and prevalence rates vary within countries and districts, making generalization impossible. The study concluded that community-based surveys are preferable.

Dr Miranda asked if the expert group has any recommendations regarding the use of MDA for antibiotics in the case of migrant populations, where the prevalence of trachoma is not known. Dr Muñoz responded that migrant populations were not discussed in the meeting.

### **Report: Trichiasis Scientific Meeting**

Presenter: Dr Matthew Burton, Senior Lecturer, London School of Hygiene and Tropical Medicine, International Centre for Eye Health

Panel: Dr Serge Resnikoff, President, Organization for the Prevention of Blindness; Dr Steven Ault, Regional Advisor, Neglected Infectious Diseases, PAHO; Dr Abdallahi Ould Minnih, Coordinator, National Blindness Prevention Program, Mauritania

A Trichiasis Scientific Meeting was held in Moshi, United Republic of Tanzania on 30 January to 1 February 2012. TT is a major risk factor for blindness from trachoma, and its management is a key component of the SAFE strategy. The goal is to reduce prevalence of TT to less than 1 in 1000 by the year 2020.

While good progress has already been made toward meeting this target, an estimated 28 year will be needed to address the global backlog at current levels of productivity, without taking new cases into account.

The purpose of the meeting was to discuss surgery output, which is currently below the level needed to reach the goal by 2020; and to address the problem of poor surgical quality and outcomes. Research has been conducted in the past few years that can inform how to improve the surgical procedures, training and supervision and service delivery.

It covered three main themes: surgical management, surgical training and quality, and output and uptake of surgery.

The WHO definition of TT is one or more eyelashes touching the eye. However, TT is a spectrum of diseases, including entropion, metaplastic lashes and misdirected lashes. It can be difficult for non-specialist health workers to detect entropion.

Three operations are used currently to treat TT: BLTR, PLTR (Trabut), and Cuenod-Nataf. Excellent results have been reported with BLTR; however, data on the equivalency of these procedures is limited, as is data on how to best manage severe trichiasis.

Trainers are encouraged to follow the techniques described in the WHO "Final Assessment of Trichiasis Surgeons" document, which has step-by-step instructions on how to assess competence of trainees. It is also important to maintain sterility, ensure an adequate incision length, and use post-operative antibiotics.

The area of surgical outcomes and quality includes TT recurrence, impact on vision, mitigation of symptoms, and the lid profile and cosmetic result. It is recommended that post-operative follow-up be conducted within 6 months of the surgery, as most recurrences occur within this period. However, all too often, routine follow up does not occur or is inconsistent.

In general, pre-operative disease severity is a major determinant of surgical outcomes. However, outcomes can be improved by strengthening training and selecting surgeons carefully. While there tends to be a high attrition rate among TT surgeons, dedicated eye workers are more likely to continue to perform surgeries.

Clear criteria are needed for selecting surgical trainees, including manual dexterity and good vision.

As regards supervision, it is worth noting that more often than not, non-MD surgeons perform TT surgeries. This underscores the importance of having supportive supervision, led by a trained surgeon-supervisor. Supervision should include direct observation of surgeries, good record keeping, and surgical audits.

In the area of surgical output and uptake, the number of surgeries performed per year needs to increase substantially between now and the year 2016. However, reality has not corresponded with the demand. At present, "campaign" and "outreach" surgical provision accounts for 65-85% of the total number of TT surgeries performed. Static services alone are not sufficient in many regions; as such, campaigns and outreach are still needed. It is recommended to develop a manual on how to conduct effective and efficient outreach programmes.

It is important to encourage people with TT to have surgery, which requires having mobilization efforts that understand local barriers, and minimizing the financial and time costs to the patient, such as by providing surgeries in geographically difficult locations.

Nevertheless, some people will decline surgeries even after careful counseling. In those cases, other management options should be provided.

### **Panel Discussion**

Dr Resnikoff expressed frustration regarding the lack of improvement in the area of surgeries, given that much is known about what needs to be done and which areas need improvement. He said that avoiding recurrence is key, adding that it will be important to remember that pre-treatment severity is an important factor influencing the likelihood for success of surgery.

He pointed out that surgeons who operate on patients more frequently tend to have better track records than those who do not. Thus, he said, rather than focusing on training many surgeons, it may be more effective to carefully select fewer, better quality surgeons.

Finally, he pointed out that the more progress made as regards to antibiotics and environmental improvements, the more incidence of TT will decline. He recommended measuring prevalence of TT in surveys, and incorporating other measures of progress in the area of surgery, mainly with regards to quality.

Dr Ault said that these same points were discussed in the 2nd regional meeting on trachoma elimination that took place in April, and the LAC region is in line with the recommendations that have been given on the themes presented here.

With respect to uptake, he noted that experience in LAC has shown that ensuring that patients receiving surgery are accompanied by a family member or health worker from the time they leave home until their return back home seems to be helpful. This should be considered as a recommended programmatic approach for surgeries.

He said that having a training manual would be especially useful in new programmes, along with using a cadre of very experienced surgeons to train new surgeons. He suggested taking greater advantage of ophthalmology societies in the countries to identify good surgeons to be trainers, which would help address the demand for TT surgery. Finally, he suggested mapping potential partners

and/or institutions (international NGOs, NGDOS, etc.) to help fill the gap for surgeons and surgery provision.

Dr Minnih said that 26 surgeons have been trained in Mauritania since 2004, and less than half of them are active. Some are not successful in performing the surgery; others have moved onto other jobs and no longer do the surgeries. Only 14 surgeons remain. He also indicated that BTRis was the method commonly used in Mauritania.

He recommended having more experienced surgeons operate on older people and in cases of recurrence, although with younger people there are also issues to consider, such as esthetics. Mauritania does not have data on recurrence from 2004 to date, but there were many cases of recurrence in the 70s and 80s due to the surgical techniques that were used. He indicated that Mauritania does not have a problem with high refusal rates because health staffs explain the importance of the surgery to patients, including the benefits of preserving eyesight and avoiding photophobia.

The country used the campaign approach in 2004-2006, but they were stopped due to the fact that fewer and fewer cases were being identified. In total, Mauritanian surgeons operate about 200 cases per year.

#### **Open Discussion**

Dr Sarr raised the topic of availability of resources and consumables, and asked if any suggestions were made in the meeting on that topic. He raised importance of awareness-raising for preventing diseases, and asked whether surveys could be used as an opportunity to screen for other eye or eye-related diseases, educate families, and so on.

Dr Burton responded that that need to strengthen management of consumables was discussed at the meeting; since often supplies are available, but they are in the wrong place. In regard to BTR surgery, he said that there has not been a recent direct trial with sufficient numbers that addresses which surgical method is the best. Trials conducted 20 years ago found that BLTR performed better than the other methods. However, he said there were no grounds to change procedures in countries with established programmes, as long as 1 of the 3 procedures is being used and recurrence is under control.

Dr Mishra said that the survey in Nepal showed that recurrence was an issue. It found that 9% had 1 lesion and 4.5% had more than 1 post-operation complication. He indicated that there was a real need to increase surgeries in Nepal.

Dr Shiota said that more emphasis should be given to primary eye health care. He cited the case of Thailand, which had trachoma prevalence in the mid-80s, but now does not, after socioeconomic development and improving the quality of primary care.

### **ITI Report: Zithromax forecasting and progress**

Presenter: Mr Danny Haddad, Director, International Trachoma Initiative

Panel: Dr Anthony Solomon, Honorary Lecturer, London School of Hygiene and Tropical Medicine; Dr Lucienne Bella, PCLN Coordinator, Cameroon; Dr Khumbo Kalua, Senior Community Ophthalmologist, Ministry of Health, Malawi

As of last year, trachoma was suspected to be endemic in 59 countries. It had been confirmed via surveys in 110 million people in 559 districts, and endemicity was suspected, based on rapid assessments and national programme data, in 210 million more people living in 1,293 districts. Significant progress has been made--9 countries have achieved their UIG—after using the SAFE strategy.

Current data from 1,338 districts indicates that 726 districts have TF prevalence >10%; and 1,242 districts in 112 countries are suspected to be endemic. However, there is still a lot of work to be done to complete the mapping of trachoma.

54 million Zithromax treatments were approved in 2010, compared to 62 million in 2011. Approved treatments in districts that reported distributing: 41.4 million in 2010, compared to 58.0 million in 2011. 382 (68%) and 407 (56%) districts approved treatments in 2010 and 2011, respectively, but just 323 (57%) and 400 (55%) actually distributed the treatments. In both 2010 and 2011, the ratio of treatments reported distributed/approved treatments (68.9% and 72.76%, respectively) were below the 80% threshold target, indicating that there is work to be done to improve treatment coverage. Zithromax distribution has increase year by year, other than in 2010.

ITI has scaled up its efforts in 22 countries since 2009. In 2012-2013, scale-ups are in progress in Guinea, Guatemala, Mozambique, Solomon Islands, Zambia, CAR and Chad. A massive jump in antibiotic treatments is projected over the next 4 years, with a peak number of treatments (160 million) expected in 2016. However, these projections may change as new data becomes available.

Best practices for antibiotic MDA are needed in a number of programme areas: national coordination, planning and political support; integration of Zithromax MDA with other health activities; training materials and programmes; incentives for personnel; micro-planning; advocacy and community mobilization; on-the-ground administration; supervision; and recording and reporting. There is a steering committee in place to give input as to best practices. ITI hopes to have the results of this analysis in the next 5-6 months.

When considering national coordination, programmes should conduct micro-planning to prepare for distribution. Micro-planning should be prepared by programme teams one month before MDA; and should focus on MDA efficiency. If MDA is integrated with other services, such as MDA for other NTDs or distribution of other health care services or packages, micro-planning should be done jointly. It should include targets for each team, measures to take if targets not met, and details regarding financial management. It should also address how drugs will be collected from health facilities as well as management procedures, what to do with unused drugs, and so on.

A study was conducted in 4 villages in Mali on co-administration of several drugs to determine how to best integrate with other NTDs on MDA. Two villages received a triple drug treatment (ivermectin and

albendazole and azithromycin), while the other two waited a week to distribution azithromycin (ivermectin and albendazole were still given simultaneously). No severe adverse events (SAEs) were observed, although a few minor and moderate adverse events (abdominal pain, diarrhea, and headaches) were reported. Formal statistical conclusions cannot be drawn due to the nature of the study, but the results suggest that triple therapy is not associated with a higher rate of SAEs and AEs than standard therapy. In fact, while 12 major AEs occurred in the study, 8 happened with the standard treatment, compared to just 4 with the triple therapy. A second phase of this study is planned for Mozambique.

The new reporting deadlines have also been recommended; reporting will be required semiannually instead of quarterly. Distribution reports will be due on October 1 and April 1; inventory reports will still be done annually 2 months prior to shipment.

Three forecasting meetings were held in Ethiopia, Atlanta and Washington, DC, between December 2011 and May 2012. All applications will go for final approval to the Trachoma Expert Committee on 28-29 June 2012.

### **Panel Discussion**

Dr Kalua said that Malawi started doing MDA in 2011. They integrated coverage and met their commitment in 3 districts, 2 of which had >10% prevalence. The Malawi NTD coalition focused on LF, Oncho and schistosomiasis that last week in October. Two weeks later, they did MDA for trachoma. Two different departments were involved in this effort; and they had to wait for their colleagues to do MDA for the other diseases before they could do the trachoma MDA.

Malawi would like to scale up its MDA programme, but it needs partner support and funds because they don't have funds for distribution. They have paid government workers go into the villages. In their evaluation, they found that distribution was low because they ran out of drugs, namely because their estimates did not correlate with what found on the ground. Next time, they plan to review their estimate in order to get the right amount of drugs.

Dr Solomon said that the data presented by Mr Haddad underscores the massive job ahead as regards the number of new countries and new districts, all of which will require baseline data, as well as to ensure coverage in areas with existing data. The good news is that there is tremendous momentum to do this work; good plans have been generated and improvements have been made in areas ranging from the macro level down to detailed plans for Zithromax distribution.

Dr Bella asked for more task forces to be set up at the country level to ensure good management of trachoma prevention efforts. .Some countries haven't conducted surveys because they do not have the capacity; others are not eligible for drug donations and do not understand why this is the case. WHO should help manage MDA because they have experience with Oncho. Often, countries are surprised when they are deemed eligible; some of those that are eligible are not ready to receive drugs due to logistical problems. Task forces are needed to help countries receive and distribute drugs, as well as for reporting and evaluation.

#### **Open Discussion**

Participants pointed out the need to understand the situation of trachoma in China, India and Brazil. They also said that more research was needed on co-administration of multiple drugs, particularly on side effects that may occur over time. They asked if the partners can do surveys to help fill in the gaps between forecasts and the amounts actually used, and with campaigns and distribution. They said that more guidance is needed in these areas.

In response, Mr Haddad asked countries to send the information they have. He also requested that this information be published so everyone would have access to it. He said that only the Mali study had been done to date on simultaneous treatment with multi-drugs. Such studies are challenging because they require collaboration with 3 pharmaceutical companies and can lead to changes in the guidelines. There is huge momentum right now to scale up trachoma control programmes. In Kenya, the trachoma action plan was used to do advocacy with the parliament. Scale-up is possible, but requires in-country partnerships. We must work together to see what is needed in each country and how the partners can collaborate.

Dr Mariotti said that the WHO can help countries do sampling and surveys, but the countries first needed to decide what needs to be done.

### Water and sanitation for trachoma elimination

Panel: Dr Sarina Prabasi, Deputy Chief of Program, ORBIS; Dr Yael Velleman, Senior Policy Analyst on Health and Sanitation, WaterAid; Dr Jaouad Hammou, Director, Maladies oculaire et Otologiques, Morocco.

Trachoma control efforts and organizations that focus on water, sanitation and hygiene (WASH) should have more partnerships. The two groups speak different "languages" in different form; and WASH doesn't know how to add value to the work being done in trachoma control efforts. Such programmes have not effectively engaging the WASH sector.

There are a number of potential barriers to engaging WASH. They may not be working in areas that are trachoma endemic. WASH may not want to prioritize investments to treat just one disease; or even to treat just NTDs. They have more immediate needs and goals, namely, increasing service coverage.

It is important to engage the WASH sector via the alliance, which as a whole has more weight than individual countries, and to convince them to focus wash investments in areas of high NTD prevalence. A good first step would be to find out which arguments would make a difference to WASH leaders and to use those in our approach. Strong advocacy is required to help them to understand the synergies between their sector and ours, especially in regard to budget allocation, and to demonstrate outcomes and impact. One approach may be to micro-map poverty and NTDs; WASH decision-makers may be willing to take this type of information into account.

Hygiene is a cultural issue and needs to be taught to mothers and girls. Giving people soap and water doesn't matter if they don't understand the need for clean faces. It cannot be assumed that hygiene is a natural human inclination. Education is necessary to convince people that they don't have to wait for our help to dig wells; that is one of the things that can do to help themselves.

Millennium Development Goal #7 is to improve the human environment. We need to include that goal in the health sector agenda; for example, we can use it to talk about monitoring and evaluation, as well as to talk about latrines. We also need to include indicators such as the number of latrines on the WHO NTD reporting form.

The topic of hygiene is missing from title of this session, yet most of the synergies between WASH and the health sector may be in that area. There are links between WASH and the health sector in the case of 9 NTDs. Thus, it should be a joint challenge to make sure disease prevention becomes a critical component of health programmes operating in country. Prevention tends to get pushed aside whenever a curative solution comes along.

A third of the world's population does not have safe place to go to toilet; meaning a place that separates humans from excreta. Eight million people lack access to potable water. It is hard to obtain good data on hygiene habits because people tend to lie about it.

Although diarrheal diseases kill more children than anything else, the WASH sector organizations does not use at present NTD diseases prevalence as an indicator to define priority for interventions. Rather, they measure and are focused on maximizing service coverage. They are not accountable for health outcomes; instead, they are accountable for meeting demand for services. For example, the WASH sector is struggling to create a demand for latrines in houses; this is an area where we can collaborate.

There is a partnership between WATERAID and trachoma in Ethiopia, which is now one of WaterAid's biggest investments. This commitment developed after talking with experts on trachoma. A lesson we can learn from this example is how important it is be able to explain the mutual benefits between the 2 areas of work.

The WASH sector is focused on creating demand and being responsive. Demand for services has to be in place before infrastructure will be built. We need to explore whether there are parallels between behavior change efforts and demand for services.

Both sectors struggle with the tension between the need for very specialized skills and the general skills required for programme partnership development. We should explore points of mutual interest in this area, to build on those.

We need to carefully think through whether it is best to form partnerships and coordinate, or to take an integrated approach. The latter has deeper implications as regards to planning, holding each other accountable, etc. There are also logistical issues to consider.

Having WaterAid's support allows to invest in 2 components of SAFE: surgery and environmental improvements. An educational component around sensitizing women to the need for facial cleanliness in their children supports sustainable local development and creates demand for WASH services. This requires thinking beyond the individual or family and instead considering the transmission of disease at the community level. It requires communicating the importance of having accessible water and developing sanitation systems

Another area for inter-sectoral collaboration is electrification, which increases exposure to the information from public media and encourages behavioral change. We should explore synergies with micro-projects that allow families to improve their socioeconomic conditions. In this way, trachoma prevention offers an opportunity for human development.

### Trachoma in the Americas: an overview

Presenter: Dr Juan Carlos Silva, Regional Advisor for Visual Health, PAHO

Resolutions are considered very important in the LAC region of WHO. Following the 1998 WHA 51.11 resolution on the global elimination of trachoma blindness, PAHO put forth resolution CD49.R9 in 2009, on the elimination of all NTDs in the region.

The PAHO resolution includes the following:

- Adopting the SAFE strategy
- Reduction of the prevalence of active trachoma (TF/TI < 5%) in 1-9 year-olds
- Eliminating new cases of blindness caused by trachoma (TT < 1/1000)

LAC countries can be categorized into 4 groups, according to trachoma endemicity. Mexico was formerly endemic and now has no active trachoma; Brazil and Guatemala are currently endemic with active foci; Colombia is not reported as endemic, but new suspected foci; and Venezuela, Peru and Bolivia are not reported as endemic, but the share a border with endemic areas in Brazil.

The Mexican state of Chiapas reported 5 endemic municipalities in the 1980s. It initiated a trachoma programme in 2001; now, it is close to elimination.

Guatemala has 2 districts that are endemic for trachoma. It started a trachoma programme in 2002. The most recent survey of the 2 districts reported confirmed trachoma (using PCR and clinical exams) in 1 district.

Brazil has a long history of trachoma. In 2000-2008, 295 districts were assessed and 292 indigenous communities were examined. Prevalence of >10% in areas bordering Bolivia, Peru, Colombia, and Venezuela suggests that there may also be prevalence on the other side of the border.

In Colombia, a 2006 study showed that prevalence of trachoma (confirmed by PCR) in 2 communities that border Brazil. The prevalence of trichiasis in these communities indicates that trachoma isn't new to this area.

In 2011-2012, successes of trachoma efforts include incorporation of the disease into the NTD programme, which gives it higher visibility and increases cooperation with others diseases. Also, the first regional meeting on trachoma was held in 2011; and another was held in 2012, which included technical discussions and allowed countries to review achievements, barriers and needs. Another important achievement was improved inter-country cooperation; for example, Brazilian health staff recently trained Colombia's trachoma team.

At the national level, Mexico is compiling its dossier describing the efforts in Chiapas, its procedures and achievements. Mexico is on the verge of requesting verification of elimination.
Brazil is implementing a trachoma elimination programme in various endemic states. It is worth noting that Brazil has included trachoma in its national poverty alleviation programme, which is much larger and broader than a stand-alone trachoma programme.

Guatemala has obtained approval from ITI for a first round of treatment with Zithromax. It has developed a treatment plan and an impact survey protocol.

In Colombia, the Ministry of Health has provided financial and technical support for trachoma elimination efforts. A protocol has been developed for a survey and the national lab has developed PCR capacity.

Recommendations from the 2012 regional meetings are to continue holding annual regional meetings and to use a standard format to present annual reports. In the area of leadership and governance, LAC countries want to increase the visibility and advocacy of trachoma elimination so it is included in larger initiatives, such as poverty alleviation programmes.

LAC countries recommended to WHO developing criteria and guidelines for verification of elimination. They also requested the development of a protocol and a methodology for sub-districts with prevalence of 5-10%.

In the area of health services, they express the need to apply strategies to train, certify and supervise surgeons; Brazil declared its readiness to help other countries in this regard. They recommended scaling up the components of facial cleanliness and environmental improvements.

The recommended developing an international roster of verified trachoma experts, promoting more inter-country cooperation, creating a toolkit to help countries develop their programmes, ramping up support for countries that are not considered endemic to verify new foci in such countries exist as suspected.

Although every country has made progress as they take steps toward elimination, they still need the technical support of Alliance members to move forward and achieve GET 2020.

#### Discussion

Dr Emerson noted that trachoma in Brazil differs from the African situation because it is prevalent in the jungle in Amazonas and he asked if trachoma in Brazil leads to blindness.

Dr Castalia responded that there is no TT in this area, while TT is prevalent in Northwestern Brazil, in Bahia, Ceará, among others. TT is found in 4 Brazilian states: Pernambuco, Manaus, Bahia and Maraná. Interestingly, in indigenous areas, there is TF prevalence, but TT is not common. However, army doctors are currently investigating the situation in Amazonas as they believe that there is TT among the indigenous population, but it has not yet been confirmed. She will provide more information when it becomes available.

Dr Mariotti encouraged his colleagues to use WHO definitions, standards and protocols when engaging in the verification, confirmation, and reporting processes. Use of non-standard definition or assessment methods might hamper the decision taken following the field work.

# **Neglected infectious diseases in LAC**

Presenter: Dr Luis Castellanos, Coordinator, Prevention and Control of Communicable Diseases, PAHO

Since not all neglected diseases are tropical, the term is NID in the Americas. LAC is the most inequitable region in the world; this extends to disease burden and all areas pertaining to health. There are 43 million children at risk for STH and 50 million people at risk for trachoma in LAC. The majority of the 582 million people in LAC live in marginalized, urban neighborhoods, which puts them at risk for NIDs, as well as hepatitis, tuberculosis, and malaria. There are political mandates in place for WHO/PAHO to work on all these diseases.

PAHO is employing an integrated approach to combat diseases. This promotes the efficient use of human and financial resources in logistical support at headquarters and in the country offices; PAHO also engages in disease-specific research.

PAHO works with the countries to develop national and regional action plans, indicators etc.., for each disease. By 2015, PAHO expects that 10 diseases (LF, ONC, Blinding Trachoma, Chagas-including both domestic vectors and blood transfusion- human rabies transmitted by dogs, plague, leprosy/Hansen's disease, malaria (where possible), neonatal tetanus, and congenital syphilis) will have been eliminated; and the disease burden will have been reduced for 2 others (SCH and STH).

Data and mapping exists for many of these diseases, and there is also have one map of 6 overlapping NIDs: SCH, LF, ONC, Trachoma, human rabies, and STH. This joint map helps PAHO to prevent many diseases at once using a comprehensive approach. It is also helpful in conducing advocacy with policy-makers to influence planning and prioritization of NID work.

PAHO has produced an integrated plan of action for NIDs for 2010-2015, that assigns the 33 countries in the region into 4 categories, according to disease burden, population at risk, and the need for integrated actions. PAHO is working with the countries to develop NID elimination and control plans, according to each country's NID situation.

In addition to the proposals for each country, which are available on the PAHO website, PAHO also works beyond the health sector. This work is crucial and must be strengthened because many social determinants for health depend on factors outside the health arena. More intersectoral work is needed with the tourism, housing, labor, and other sectors. Integrated national plans need to be developed; whether headed by the office of the President, or by the MOH in each country.

Building partnerships is fundamental to NID efforts; Dr Castellanos expressed his gratitude to the donors for trusting PAHO to guide development efforts to eliminate and control diseases in the region.

Small countries can accomplish big achievements. Honduras was the first country in the region to complete, finalize, and launch a national plan to control and eliminate NIDs. St. Lucia and Suriname are close to achieving elimination of SCH. Trinidad and Tobago is close to achieving elimination of LF. Countries that coordinate and support each other can move fast to make progress. The Central American countries are working towards eliminating malaria in that region; and they are close to achieving it. Countries can also reach across borders to help others, as Brazil is doing in making resources and technical assistance available to its neighbors.

Lessons learned in LAC are that Regional Committees resolutions are important elements for advocacy and for increasing support for NIDs in LAC. Mapping at the national and regional levels supports better decision-making by policy makers. Partnerships are key to reaching the region's goals in terms of fund-raising, technical support, and advocacy. Finally, tools and procedures for certification of elimination processes are urgently needed in LAC (for LF, Oncho, Trachoma, etc.).

# **Brazil country report**

Presenter: Dr Rosa Castalia, Ministry of Health, Brazil

Brazil has seen many changes in regard to NIDs in recent years.

It is a large country of close to 200 million people, 87% of whom live in urban areas. In Brazil, many NID problems are close to big cities, not just in removed areas. Most of the population (97%) has access to safe drinking water and 80% have access to basic sanitation (although in rural areas, only 37% have access).

Extreme poverty has declined in the past 10 years due to changes in economic policy and growth. This has had a significant impact on NIDs and health indicators.

Brazil is trying to eradicate extreme poverty in the country; 16 million people still live in extreme poverty in Brazil. The country is implementing the plan "Brazil without Poverty", which includes activities in the areas of public safety, access to public services, and general job and education opportunities, which aim to help people obtain access to employment.

NIDs are an important component of that plan because they have a significant impact on the perpetuation of poverty. The disease cycle contributes to poverty; especially leprosy, trachoma, schistosomiasis, STH, LF, and ONC. To address these diseases, the Plan focuses on intersectoral coordination involving the ministries of health, education, social development, and basic sanitation and safe water. All these sectors work together to pull people out of extreme poverty through cash transfers, comprehensive healthcare for children, deworming, a leprosy programme, the NID programme, and so on. The Plan is monitored monthly by the President, and the MOH has to report every month on its work in regards to NIDs.

Brazil also has an integrated plan for the control and elimination of NIDs between 2011 -2015, which was prepared with PAHO. Brazil has a map showing prevalence of 5 NIDs: Oncho (prevalent along the Venezuelan border and in indigenous communities), LF (which has one foci in Pernambuco), SCH (which is endemic in 19 of Brazil's 27 states), Trachoma and STH, which are found throughout the country.

Although there is just one LF focus in Brazil, encompassing 4 municipalities, the population at risk is significant, at 1.7 million. For Oncho, a small group of 10,000 people are at risk, which 25 million are at risk for SCH, 50 million are at risk for Trachoma, and 11 million preschool and school-aged children are at risk for STH.

Leprosy is also prevalent at a level of 1.44 cases per 10,000 people, according to partial data from 2011. Although it has low transmission rates and prevalence, it is the most important NID because of the burden. Brazil has close to 34,000 cases annually, accounting for close to 90% of all cases in the Americas.

Trachoma is a big problem in areas with extreme poverty; 335 municipalities with extreme poverty have an estimated Trachoma prevalence >5%, and the population at risk is 7 million people in those municipalities.

Actions being taken in Brazil to eliminate trachoma as a cause of blindness include: conducting an active search for TF/TI in the entire population, especially children, in areas with a history of high

endemicity, mainly old foci. The criteria for this search include: cities with the worst social indicators, municipalities with prevalence of TF/TI >5% over the last 10 years, and areas with a history of trachoma.

Department of Health Care (SAS) is working with the ophthalmic referral networks to examine suspected cases of TT and recommend surgery and postoperative follow-up, as well as to integrate with health care and school health programmes.

The School Health Program (PSE) is developing health education activities and facial hygiene programmes to improve the health status of children.

Epidemiological information from 2011 (partial data) shows that 265,000 people were examined and over 10,600 were diagnosed with trachoma; but the MOH does not have data for indigenous areas yet.

In 2011, the MOH indicated that the country's response to NIDs was below capacity; thus, the decision was made to coordinate the treatment for NIDs. The Brazilian Ministry of Health created the new Coordination for Surveillance and Control of Neglected Diseases, which aims to enhance the country's response to a group of diseases in which the results of the national control programmes were considered to be below the country's capabilities. The diseases under this new branch are leprosy, schistosomiasis, trachoma, lymphatic filariasis, Oncho, soil-transmitted helminthiasis and cysticercosis.

The first step that was taken was measuring the disease burden and gathering data to assess areas where resources could be rationalized, Data were collected from routine surveillance system, prevalence surveys and published articles

For LF, collective treatments are used and integrated support is provided for cases with clinical symptoms. For Oncho, the disease has been mapped, 3 rounds of treatment were given in the affected region, and specialized treatment was given, reaching the population across the border with Venezuela, as well.

To reduce the SCH load, regions with indigenous transmission were identified and treatment was determined according to level of endemicity. Similar efforts were made for other diseases.

Trachoma is more complex because it occurs over the whole territory of Brazil, and the most vulnerable population is at risk. However, people who need surgery for TT, and treatment for TI, generally ask for it.

The main activities in 2011 in the area of NIDs included: documents were produced with updated epidemiological analyses, an integrated approach was employed, leprosy prevalence declined, indicators were developed in collaboration with PAHO and WHO, and financial incentives were distributed to priority municipalities for NID control. Some \$13 million was distributed to 796 municipalities for trachoma control, which financed training, social mobilization activities, and so on. Brazil buys drugs for SCH and TRA; thus, municipalities need financial contributions to do so.

In 2012, challenges for the trachoma programme include implementing surgeries for TT (supported by Lyons Club International) and carrying out surveys in indigenous areas for trachoma. In the NTD programme, new elements for this year include begin preventative chemotherapy with national STH campaigns for children ages 5-14 in the public education system, collective screening and treatment for STH and leprosy. The goal to treat 800 municipalities for these diseases.

# **Colombia country report**

Presenter: Dr Rafael Miranda, Epidemiologist, Ministry of Health and Social Protection, Colombia

Colombia is a country with 45 million people living in 32 departments and 3 districts. It is a young country: 28% of the population is under age 15 and only 9% are over age 60. There are 356,000 displaced people in Colombia and 46% of the population lives below the poverty line.

Colombia is highly urban: 85% of the population lives in urban areas, and it has >80% coverage of public services and utilities. Per capita health spending is \$318, and health coverage is >90%.

Of the 12 NIDs found in the Americas, 9 are in Colombia. The term 'neglected' is not well accepted in Colombia because that country is endemic for so many vector transmitted diseases, including malaria, Chagas and dengue. The national budget to combat these diseases is larger than the budget of entire departments in that country. Colombia has prioritized Oncho, trachoma, and STH as the most neglected of all the diseases.

Colombia is the first country in the world that has requested certification of elimination of Oncho before the WHO. This certification is pending a visit by the WHO evaluation team.

The first ONCHO diagnosis in Colombia was made in 1960. No cases of blindness due to ONCHO have been reported in Colombia. Several surveys have been conducted to determine the foci, which were found in the interior of the country in a very inaccessible area in a township in Miachona. In fact, the MOH had to geo-reference the area because current maps didn't show it. However, administration of ivermectin has been given twice annually in this area for years.

STH prevalence is between 10-20% throughout the country.

Trachoma was first found after reports came in of increased snake bites in indigenous communities. It was found that more people were being bitten because they couldn't see the snakes, due to trachoma. Health brigades were sent out to those areas; they evaluated the entire community and found prevalence of active trachoma above 10% TF/TI.

There are 120 suspected cases of trachoma in Vaupés, San Joaquín and Santa Catalina, based on clinical evidence. Confirmed diagnosis (using PCR) has been made in 21 cases, 17 of whom are under age 15. In areas with prevalence of TI/TF>10%, MDA with azithromycin is being given.

Last year, the first regional managers meeting for trachoma was held in Bogota. Last year Trachoma was found at all different stages, indicating that it has been around for a long period and MDA with azithromycin is needed. It will also be important to develop a protocol for treating nomadic people and hard-to-reach populations.

Colombia adopted PAHO resolution CD49.R19 and integrated its disease control and elimination plans to address NIDS; it also held a trachoma managers meeting in 2011 as part of that plan. The framework for NIDs recommends doing a thorough evaluation of the social determinants, as well as focusing on developing strategic partnerships and engaging the community to increase participation.

The plan also includes co-administration of albendazole and azithromycin. In this regard, Colombia recommends development of a protocol for co-administration in hard-to-reach populations. In addition

to MDA for various NID components, especially trachoma and STH, the country is also working with partners to provide micronutrients, too. It still needs to measure the impact of these health interventions.

The country intends to fill out the WHO forms to ascertain the current status of NIDs. It also wants to create an interdisciplinary knowledge network with support from ministries, academia, NGOs, etc. They intend to use a primary care emphasis given the characteristics of the population, and they need clinical guidelines, surveillance protocols, and other assistance in this regard.

Specific to trachoma, Colombia wants to determine prevalence in the Eastern part of the country bordering Brazil. Brazil has provided Colombia technical cooperation, training, and support staff. Colombia needs training for: ophthalmologists doing surgeries, survey coordination and planning control strategy if needed.

It is important to guarantee the population access to social services, too; otherwise the plan will fail and lack sustainability. Costs must also be considered: the estimated cost of doing a national survey is \$1.2 million.

Among the current opportunities and challenges are capacity strengthening, inter-country collaboration, integrating the plan, inter-sectoral collaboration and communication, working in different languages, awareness raising, research and establishing the current situation, developing strategies that work in migrant communities, and developing appropriate dosage guidelines for antibiotics in young age patients.

# **Guatemala country report**

Presenter: Dr Marco Antonio Díaz, National Trachoma Program Director, Guatemala

Guatemala is working intensely on trachoma. The country has 22 departments and 333 municipalities. The population is 14.5 million, 57% of whom live in poverty and 16% in extreme poverty. Many languages are spoken--25 in all. Therefore, interpreters are needed to reach the communities.

A trachoma assessment was done in Sololá and in Suchitepéquez. In all, 48 communities were surveyed and 2,600 households were visited, reaching 3,695 kids under age 10 and 1,299 women over age 40. In total, 109 children under age 9 were sampled and 2 lab-confirmed cases of TF were found in Sololá, as well as 4 confirmed cases in Suchitepéquez. This was estimated to translate into prevalence of 5-8% (less than 10%). Guatemala will do target treatment as needed because the houses are far apart in this remote area.

Guatemala is using the SAFE strategy, and the country has 3 teaching hospitals that train surgeons. They hold weekly meetings to coordinate activities, and also have coordination with international organizations such as PAHO, WHO, Johns Hopkins University. They engage in constant advocacy to generate sustained political support. They have eye care experts who are ready to be certified as trained surgeons.

A team has been set up to implement the SAFE strategy. Also, MOH workers are expected to be reached through posters, although funding their printing is an issue. Guatemala recently received approval for a donation of azithromycin through ITI.

Facilities are installed with water and soap for all students in affected municipalities, to encourage hand and face washing. Also, it is intended to distribute posters to encourage hygiene if funds can be obtained to print them.

Environmental improvements include basic sanitary measures to eliminate NIDs, trachoma, and blindness, in cooperation with the Ministry of Health. Work is ongoing with PAHO to develop and integrated plan for this component, and have promotional materials (posters) corresponding to this component in Sololá.

The 2nd meeting of managers for trachoma was held on March 16-18, to develop a national work plan. Training workshops were held right after this meeting and a national NID plan was developed to integrate infectious diseases.

\$480,000 was obtained in IDB funding to complete the NID roadmap and implement it in Sololá and Suchitepéquez.

There is still a need to train and certify more surgeons as trainers, not just for trachoma, but also for other diseases that lead to blindness. The believe that efforts to combat trachoma will also benefit the country by fostering collaboration and communication across sectors and establishing eye health and integrated health care standards.

Current challenges include achieving sustainability in the area of environmental improvements, making trachoma a political priority regardless of changes in government, and understanding the prevalence of diseases that coexist with trachoma, especially along the border with Mexico (Chiapas).

44



### Mexico country report

Presenter: Dr Fabiola Hernandez, Secretary of Health, Mexico

Mexico's immediate goal for 2012 is elimination of trachoma as a public health concern.

Specific objectives include conducting a house-to-house survey, providing comprehensive medical care for all inhabitants, promoting healthful behaviors and the SAFE strategy, and improving access to water.

In 2011, a survey tried to find patients in all stages of trachoma; teams went to 350 localities and identified a total of 96 new cases of any type of trachoma in 2011. Between 2002 and 2011, the country had 71 cases of TT, 211 cases of TF, and 724 of scarring from trachoma. Of the 71 TT cases, 64 were cases of recurrence or requiring reconstructive surgery; and 7 were new cases.

Mexico used mobile teams which were assigned to each patient. Team members handled the entire process, from home to clinic to hospital to follow-up care. A family member always accompanied the patient, and the team member explained to both in the local language what will be done and why, so that the patient can decide.

Surgeries were performed on 60 patients in 2010, and most were women. A cultural factor that needed to be understood is that men are the decision-makers in these communities; they must agree to have the surgeries performed on the women. The country conducted several regional trachoma weeks in various communities to promote surgeries and face washing via workshops, with significant success.

Antibiotics were given to 450 clinical cases (both to patients and close contacts) in 2011 to decrease the disease burden.

Facial hygiene workshops were given in schools with soap, towels, and water; however, most schools don't have water and teams had to bring water with them for the workshops. To support schools with these workshops, teachers were trained to check students' eyes; teams visited 205 schools in 2011, trained over 800 teachers and examined over 21,000 students.

In the area of environmental improvements, work in done with NGOs and the state government to set up a plan to improve access to water. National institutions also have a stated goal of bringing water to 5 municipalities in support of MDG7.

Opportunities include health committees that are providing support and helping us reach local communities and community leaders--priests, teachers, and so on. Local health workers are used in trachoma control and treatment methods. Housewives are being trained with support from the "Oportunidades" programme, and part of this training tells them how to prevent trachoma at home. They are also using posters to teach and remind people to engage in healthy behaviors

By promoting the SAFE strategy and addressing existing trachoma cases, they intend to become certified as having eliminated trachoma in Mexico this year.

#### Discussion

The participants noted that LAC has a profile for NIDs that differs from the situations found in Africa and Asia. The discussion centered on conclusions that could be drawn and recommendations that could be made based on experiences in the region.

Dr Resnikoff said that he was still unclear about the quantitative aspect. He asked about the levels of intervention that would be required to meet the goals in these countries? To what extent is the new information from Brazil and elsewhere changing the big picture?

Each country responded in turn by providing its intervention goal for surgery and antibiotics.

Colombia has given priority to 3 NIDs: Oncho, with which it is in the midst of a certification process; STH and trachoma. With trachoma, the goal is understand the prevalence of the disease. Since it is located in hard-to-reach areas, not much information has been available in this regard. This information is needed to mobilize teams for diagnosis and treatment, so that MDA can be given only in communities with >10% prevalence, for example. We need to identify the small clusters with high prevalence in order to guarantee access to treatment, services and surgery.

There is a need for good information system, as well as activities that empower the population to monitor NIDs using the primary healthcare system. Colombia also needs to maintain strategic alliances with PAHO, WHO and Brazil. While the situation cannot compare in size with what is seen in Brazil or Africa, it is important because it affects the indigenous populations living in border areas, who are marginalized and who live with poor sanitary conditions. There is a moral obligation to care for these few people, and Colombia's goal is to fulfill the elimination goals by 2015.

The current official data say we have about 20 communities with trachoma, and over half require surgery. Surgery outcomes have varied and we need training in that area to increase uptake. As regards to antibiotics, 300 new cases of trachoma were detected in Colombia. While that number is small, the people affected are very hard to reach and treat. More cases are suspected to exist in Amazonas and the Sierra Marcos area.

In Brazil, the Ministry of Health buys antibiotics and distributes them to endemic states. Some 10,000 people need treatment in areas where small surveys have been done, but these were done only as small surveys in 9 high endemic states. 111 people identified in 4 states--Ceará, Pernambuco, Bahia, and Maranha—who need surgery, and we are currently making arrangements for surgeries. However, it is estimated there will be many more who need treatments after the September campaigns.

Guatemala is looking to Mexico for guidance, since they are more advanced. Brazil is giving us drugs for MDA; we estimate that 60,000-75,000 people will receive treatments. Everything is in place to start the SAFE strategy, which will begin in October, with the help of PAHO and external funding and resources. There are 700,000 people living in the affected region, but the population is not dense and we don't think there are too many cases. To date, we have detected prevalence in the order of 7-8%.

In Chiapas, Mexico, 7 first-time surgeries were performed. Health staff is going house to house, looking for more cases to target with antibiotics. We are also treating contacts.

A 2002 study found Chlamydia prevalence in a large number of children in San Pedro, and the Ministry of Health is responsible for reporting new disease cases. Studies conducted in 2004 found

presence of Chlamydia, but no symptoms of TF. The 2004 study was done in 8 provinces, and was validated by PAHO, and didn't find a single case of trachoma. The last active focus in Mexico is in Chiapas.

Participants noted that 2 models seem to be relevant to the Americas region: the first addresses NIDs and includes trachoma as part of the plan; the second one, used in Mexico, is specific to trachoma. They noted that the link being made between trachoma and poverty reduction is an excellent approach.

Concern was expressed regarding the lack of annual targets and final targets for each component of the SAFE strategy in all the presentations. It was noted that there is a need to standardize measures and terms regarding definition of a case, so as to be able to make clear comparisons between variables and indicators.

National representative responded that in the past, final intervention targets were not clear for the various components of the SAFE strategy. Now, countries are coming forward with clear intervention targets, even if they are not doing interventions yet. Brazil will treat 4.2 million people and conduct 4,300 surgeries by year end. Mexico has prevalence of less than 5%, so treatment only given to individuals and their immediate families. Mexico is receiving funding to clearly evaluate the situation from NID resources from the IDB and the Gates Foundation. Guatemala only did its prevalence survey last year, so it does not have a plan yet. However, it has asked ITI for a Zithromax donation, and its treatment goal for the first year is 60,000 people. Colombia has yet to do its prevalence survey; however, it expects to treat 300 people in areas where cases have been found. Final intervention targets aren't yet known in that country. The region hopes to have final implementation plan in place soon; it needs clear targets and plans, even though prevalence is not as critical as in other regions.

Brazil is adjusting its goals. It expects to be able to lower its goal from the initial one because surveys are showing that prevalence is lower than expected in some areas. Thus, Brazil believes its final goal will be lowered; the adjustment of the goal is expected in 2015

It was noted that many of the denominators and the scope of the problem will become known when countries will fill in the trachoma report forms. All countries must fill in and submit their forms to the Secretariat as soon as possible, so the data will be available via the web. Progress cannot be monitored without data.

It was noted that in 10 years, trachoma is no longer expected to be a public health concern. However, the backlog for surgeries and disease burden are significant. Survey to define what is the best strategy for intervention in this regard, given that TT happens 10-20 years after the active disease appear, will be required in this regard.

# Opportunities and challenges: integrated NID action plans in the Americas

Panel: Dr Rafael Miranda, Epidemiologist, Ministry of Health and Social Protection, Colombia; Dr Rosa Castalia, Ministry of Health, Brazil; Dr Steven Ault, Regional Advisor, Neglected Infectious Diseases, PAHO

Moderator: Dr Neeraj Mistry, Managing Director, Global Network for Neglected Tropical Diseases (GNNTD)

Dr Mistry said that one of the challenges we are facing currently is how to move from vertical programmes to more integrated programmes. PCT and MDA lend themselves to this approach, given the capacity for co-implementation and collaboration among programmes and partners.

Even in the challenging global economic times in recent years, there are more resources available now compared to 5-10 years ago. More efficient ways to build on existing infrastructure are necessary, instead of working in parallel or developing new systems. Ways to work with other large programmes, including the big 3: AIDS, TB and malaria have to be explored. Immunization programmes offer also opportunities for partnerships.

As part of the 30 January London Declaration, 13 pharmaceutical companies committed to donating drugs for controlling NIDs, and specifically for MDA. The donors also committed funding and partners to the roadmap. It is needed to move beyond the global level and look at what is happening at the country level to enable elimination to happen. Specifically, supply chains, forecasting mechanisms, and distribution mechanisms are key to see how to overcome the challenges which exist.

Drs Castalia and Miranda talk about the challenges ahead, and Dr Ault talks about how PAHO is handling the current operations and needs.

Dr Castalia said that Brazil's main strategy for meeting the challenges around controlling NIDs relies on having a national agenda for NIDs and on capitalizing on opportunities for collaboration. This requires examining the scientific basis around NID control and surmounting political inertia.

Political decisions are perhaps the most important; creating a national NID agenda in Brazil required strong political will to break the isolated work around each disease and come together collaboratively to work together. The government took this step due to a need for consistency as well as to achieve better results.

The NID collaboration began with joint mapping to see where prevalence exists for each disease and where these areas overlap, as well as to identify priority areas both technically and for partnerships.

Brazil's government is decentralized, so the Ministry of Health empowers municipalities and states and pushes them to develop actions by themselves. This empowerment is both technical and

financial. The MOH distributed \$13 million to 800 municipalities for integrated efforts to combat NIDs, and to define integrated goals and targets.

School-aged children in 789 municipalities with high disease burdens were targeted for treatment by the public health systems. It isn't feasible to cover individuals across the entire country for each disease, so the best approach was to target very poor areas with high disease burdens that affect indicators of disease.

Partnerships with WHO, PAHO and NGOs, are very important for Brazil, as are partnerships with civil society, municipalities and representative networks, such as forums for politicians and decision-makers.

With this new integrated plan that includes all the diseases, there is now collaboration to treat multiple diseases at same time; training technical people and health workers in the new approach is ongoing.

Dr Castalia added that the main challenge is to cover all areas within one plan. Geographical access is very difficult in some areas; for example, the Oncho burden is in hard-to-reach areas. The inequalities among the people in Brazil are the biggest challenge. The government's strategy to surmount this challenge is developing plans to reduce inequality, with the plan for pushing people out of extreme poverty.

Another big challenge is convincing the ministers for sanitation and water to use NID criteria to prioritize some areas that aren't priorities right now. This is a challenge because water and sanitation priorities are different from NID ones. Water in necessary in areas with high trachoma, Oncho and SCH prevalence; the challenge is to articulate NID priorities in a way that makes sense to WATSAN sector.

Dr Miranda, Colombia, said that since trachoma was just recently discovered in Colombia, the first challenge is to map baseline data and develop a plan for elimination, as well as a survey of all parasite infections for an NID plan. This plan will be an opportunity to cover many sectors, stakeholders, conditions, and develop and implement a methodology for multi-sectoral plans. It is also an opportunity to build capacities for diagnosis and to include a model within primary healthcare for effective treatment in rural populations. Technical cooperation with neighboring countries is another opportunity.

The main challenges include the complexity of working horizontally, since this will require depending on other sectors. It will be important to have clear administration, resolutions and policies to do this. It will also require working with communities consisting of many different ethnic groups; we will have to be sensitive to the cultures of each community and create solutions that work for them. There is a need to empower communities to do monitoring work, and create a surveillance mechanism that will give us time to act. It is needed to strengthen the national diagnostic system for NIDs and include all activities related to eliminating NIDs into a single inter-sectoral plan developed together with all the stakeholders. Dr Mistry commented on the need to have diagnostics for measuring impact and progress. It isn't enough to have process indicators, such as the number of treatments distributed, but also outcome measures.

Dr Ault (PAHO) noted that there were some common themes that can be observed across the region. Ten years ago, PAHO was concerned with advocacy to engage ministries of health and convince them of the merits of integrated plans. Next came the process of shifting from disease control programmes to elimination programmes, while maintaining the MOHs as leaders of this process. PAHO also worked with countries to finance, plan and budget for integrated plans of action for NIDs.

The region had a number of historical with vertical programmes, some of which were very successful, such as polio and rubella. PAHO also worked with NID programmes to integrate some of their activities with child and maternal health programmes and vaccine programmes.

At first, the countries had little inter-programmatic experience. Even vector control was done separately for each disease; as there was no integrated vector management programme. MOHs had good experience at the local level, but few resources.

Some countries still suffer from a lack data due to incomplete reporting on some diseases, many communities don't have reporting forms, and individual cases management data is not known or documented. For example, some countries are still searching for hydrocele cases because reporting has not been done. These are some of the challenges for integrated plans of action for NIDs.

Opening a dialogue on integrated plans of action for NIDs with the MOHs is a complex process. In this regard, PAHO has been working to:

- Explain what an integrated plan is—which implies the need to carefully review country logistics, drugs (including explaining which drugs work on more than 1 disease), develop a common system of indicators, and empower leaders within the MOH to implement the plan. The evidence base, both epidemiological and scientific, must be explained, as well.

--Stay abreast of and communicate the political guidance received from WHO—including guidelines, resolutions, and the need to integrate control of NIDs. Informing the region about the conversations with senior officials on these issues is important, as is explaining how elimination reduces long-term costs to the country. Providing recognition from WHO to countries that can say that a number of diseases have been verified as eliminated is also important.

--Use the PAHO resolutions on NIDs and vector management to advocate with partners and countries.

--Develop demonstration projects jointly with the IDB and the Sabin Vaccine Institute, such as the project in Chiapas, as well as develop a tool to describe what needs to be done to implement integrated plans of action.

--Produce cost-effectiveness studies for disease elimination with IDB, showing that integrated plans of action can help save money and are feasible.

--Develop strategic plans for a number of diseases--Chagas, rabies transmitted by dogs, and others. --Advance the regional approach on LF, and extend it to include STH and SCH control.

--Shift from control to elimination, including doing the planning, disease remapping, scale-up efforts from control to elimination, as well as creating a scale-down process as countries get closer to

elimination. PAHO is also looking at the costs of both the scale-up and scale-down processes. It is developing the concept of an action plan for PCT, and PCT + diseases (rabies, others), and figuring out how to incorporate these into integrated plans of action.

--Help the MOH to take ownership of the action plans as well as to collaborate with other ministries, such as transport, environment, sanitation, tourism, and so on, as well as with local governments and cross-border governments.

--Develop action plans with partners while keeping the leadership for the MoH.

--Financing plans up to 2015 or 2020, which involves negotiations with ministries of finance, the IDB, and other sectors; as well as applying for grants from foundations, generating cooperation between countries, using valuable tools developed by USAID and RTI, such as a funding analysis tool: an integrated planning and costing tool that looks at each category of costs and project them across sectors.

Dr Mistry noted that it is not possible to do everything at once; countries need to prioritize tasks and tackle them in a feasible way.

#### Discussion

Dr Mwingira said that Tanzania has an integrated plan for NTD control that includes trachoma. The country has developed good partnerships and they have received donations for all 4 PCT drugs. Previous to the current integrated plan, they had vertical programmes. Some of the challenges faced in implementation include delayed reporting, which they plan to solve with an NTD information system and a pilot using mobile phones to have communities and districts report information on drug distribution, for example. Another challenge is that most of their partners focus on MDA, not morbidity. Partners need to assist with morbidity control. Another challenge has been engaging partners in other sectors such as WASH. Trachoma is an opportunity to strengthen partnerships, unite around common goals, and improve implementation plans.

Dr Mistry noted that challenges and opportunities go hand in hand. Governments are trying to find opportunities to attract new partners, engage new sectors, etc. There is a need WHO to support this integration process.

Dr Engels responded that, in the NTD department, there is a working group on diagnostics, and a subgroup on novel diagnostics and surveys. WHO is also focusing on developing progress indicators—for midterm situations, and pre and post-elimination. He pointed out that diagnostics may need to be different for different stages of NIDs. WHO wants to put the work on diagnostics on one platform, which would improve surveys across diseases, to make it a relevant platform for 5 diseases.

WHO wants also to look at novel diagnostics for STH, as well as get a better idea of transmission rates. Surveys would need to prove that interruption of transmission had occurred, but that may be difficult. However, it would be necessary for verification of elimination.

The "WHO scorecard" is expected to make it easier to monitor the progress in of different diseases elimination. The amount of support WHO can provide depends on the level of data reported. WHO is

preparing the tools and getting global consensus on the global strategy for implementing NID programmes. Working groups are a good way to get consensus and move things forward. WHO has 3 working groups: one on MandE, one on drug supply and logistics, and soon, there will be one on capacity building.

The regional offices offer support on programmatic issues and the coordination of the same, including technical assistance to the countries.

Dr Bubikire, form Uganda, said that the Uganda MOH has done MDA since 2007. The challenge they're facing is that the category of staff used to do the MDA are supposed to be volunteers, but there are increasing demands for incentives among these community drug distributors (CDDs). The MOH does not know how to handle this. As paying them would be very expensive, even though the drugs themselves are donated and we are committed to elimination. This is a real problem because some of the resource-rich programmes, such as malaria, do pay volunteers. So, naturally, the volunteers abandon NIDs in favor of the paid programmes.

Another challenge with MDA is that people who are not sick do not understand why they need to take drugs. Also, there is the need to explain why everyone has to take ivermectin if they are not exposed to specific morbidities (hydrocele).

He also expressed reservations about the new term of NID, pointing out that it's harder to market programmes when they are always changing names.

Dr Mistry concluded the session with the following comments:

There is a need for new tools from WHO.

--There is a need to mobilize and harmonize donor participation to maximize their impact; volunteers cannot be paid for working on some diseases and not others.

--NTD control requires going door to door in the most remote areas of the countries. Few programmes have this kind of infrastructure, we need to take advantage of it and use it to create partnerships.

--Communication is key to profit from opportunities.

## **Conclusions on presentations on the Americas region**

This session was intended to gather the perspectives of countries outside the LAC region on the presentations made by the countries of the region.

Dr Debrah said that Ghana is in the verification or certification phase of elimination, and that Sight Savers International and ITI have helped them in this process. Government support has come in the form of paying the salaries of all the heath workers, providing vehicles, etc. Trachoma and NTDs are very much neglected diseases in MDA; there seems to be a sense that since it is possible to control the diseases with MDA, additional investments are not needed. We need to see how to change that idea and look at other areas of the programme beyond MDA.

Dr Bamani said Mali's situation is very different from the ones described in the LAC countries, where there seems to be a very low number of cases. Mali has implemented MDA in 59 health districts. Treatment has been given for 3 years with excellent results. Some areas still have prevalence of over 10%, and Mali intends to do additional MDA in those specifically targeted areas (not entire districts). There are only 10 districts where is prevalence >10%. The real issue is to deal with areas with moderate prevalence of between 5-10%. On the issue of surgery, Mali has a backlog of some 30,000 cases of trichiasis. It is difficult and very expensive to find TT cases, although Mali is training community focal points to screen for trichiasis.

Dr Bubikire said that in integration has not yet been very successful in Uganda. Malaria is considered an NID there and there is little coordination between malaria and NIDs. Partners are needed in Uganda to help with coordination and integration.

Dr Castellanos said malaria is also considered an NID in the Americas region, according to the resolution. It is also important to consider viral hepatitis, which is truly a neglected disease. Nevertheless in the region of the Americas, it does not matter if a country is small and poor; it can still move forward with control efforts if there is political will to do so. Poor countries are sharing resources with richer countries, etc. PAHO is fostering communication between countries for technical cooperation among them.

While LAC may represent just 1% of trachoma cases around world, the region is willing to share what's being done. Mexico has the most organized surveillance system seen in years; it wants to clear remaining cases for verification that it is free of trachoma, just as Colombia is seeking to be declared free of Oncho. While the LAC region does not have the highest disease burden, the countries are efficiently making efforts to prevent, control, and interrupt disease transmission.

PAHO and WHO need to respond to the demand of the countries, there is still a lot of work to do to tackle diseases in the remaining clusters.

Dr Mistry said that the LAC region's success in mobilizing resources can be applied to other regions of the world. Whether appealing to philanthropic organizations, corporations, etc. Some organizations

are interested in specific regions; others are looking for business opportunities and potential human resources. The largest funds are coming from donors-especially the bilateral. There are few new programmes for NTDs; we need to find ways to integrate NTDS into other programmes that have funding.

We need to build on tenants such as health system strengthening and capacity building. Privatepublic partnerships are also important, such as with pharmaceutical donations. However, capacity building is needed to be able to absorb the quantities of drugs that have been donated for as long as they are needed. Partners, NGOs, WHO and PAHO can all help with capacity building and technical expertise to improve uptake.

Some countries in LAC and Africa are providing leadership in drafting national integrated plans-donors look for this, as well. Such plans provide opportunities for cross investments. Finally, the partnership with the IDB and the Sabin institute offers a great model that should be expanded to other areas.

Dr MacArthur noted that some participants have indicated that they are not just responsible for trachoma coordination in their countries, but also for national prevention of blindness. Overlapping responsibilities promote integrated programmes.

A DVD, produced by LSHTM, showing the surgical procedure, step by step, was made available to the participants.

# 2014-2019 Action Plan for the Prevention of Blindness

Presenters: Dr Nick Banatvala, Acting Coordinator, Prevention of Blindness and Deafness, WHO; Dr Peter Ackland, CEO, IAPB

The 2014-2019 Action Plan for the Prevention of Blindness provides a shared vision of the work needed to eliminate avoidable blindness and it clarifies the roles of the partners, stakeholders and countries to facilitating a more effective interaction between all parties.

It has five objectives and a number of targets and indicators, useful to monitor progresses towards the goal.

It provides guidance for developing national strategies in some countries as well as mechanisms for reporting progress to the WHO. The plan has a number of shortcomings, as political and financial commitment is limited, work remains to be done to integrate eye care into health care and to ensure strong linkages with the development of health systems.

Funds will need to be raised for its implementation, SMART indicators have not yet been developed for a number of tasks. Opportunities for alignment with other plans and programs have not been fully explored and synergies may be lost. Mechanisms are still lacking for member states and international partners to report on some program activities, such as advocacy or fundraising efforts. Finally, WHO's capacity to respond to the needs of the countries and partners is limited due to reductions in human resources.

Nevertheless, some progress has been made both politically and in terms of the public health response.

Two web consultations are being done: a questionnaire and a consultation disc paper, the latter of which closes Friday 18 May 2012. In June, a small working group will develop an initial draft, to be followed by a web consultation on that draft and further iteration based on that consultation. We expect to share the action plan with countries and partners at a meeting that is planned for September 2012. Finally, it will be submitted to the executive board of WHO next January, and to the WHA in May 2013.

#### Discussion

Dr Debrah said that when new governments are elected in Ghana, the program has to start advocating with the MOH all over again. He asked what could be done when the minister comes back to Ghana after WHA meetings and says nothing happened.

Dr Banatvala and other participants responded that as the secretariat, WHO is not empowered to require ministers to accept WHO proposals, nor can they directly lobby ministers because they are WHO's stakeholders. He suggested that country program managers make sure the country delegation is very well briefed about what the country needs to have come out of the WHA meeting and what they expect to get back from it. It is important for program managers to be familiar with the agenda items and develop key points for your minister to address at the meeting. When the minister returns, program managers can request another meeting to ask for a report and coordinate next steps.

Several participants expressed frustration regarding the lack of support they feel coming from the WHO regional office in Africa; and they said that the current lack of support hinders their efforts to promote and strengthen their country programs. They asked for more support to be provided from the African Regional Office to make eye care a higher priority in the African region.

Dr Mishra said that Nepal has a "right to sight" plan and its own 2012-2020 strategic plan, which was developed with the help of NGOs.

Dr Hammou said that Morocco has developed new plans of action through an executive committee and WHA, which has helped to give blindness priority status in that country and which has helped keep the issue on the country's health agenda, even during changes in governments.

# **Conclusions and Recommendations**

- 1. The participants commended PAHO for the excellent job in coordinating and hosting this year's meeting. They noted that holding the meeting at PAHO provided added value on several counts:
  - a. It presented an opportunity to hear from countries in the Americas that did not attend previous GET2020 meetings.
  - b. Having the input of the PAHO region was a reminder that trachoma is indeed a global problem. It was also a reminder that epidemiological investigation is still needed to determine whether trachoma is endemic in additional countries, including Bolivia, Peru and Venezuela.
  - c. Presentations were made by 2 new countries, Guatemala and Colombia.
  - d. Having the meeting at PAHO demonstrates the Americas region's political support for trachoma elimination, adding to the support that was previously expressed by the 2009 PAHO resolution CD49.R19.
- 2. Endemic countries in the Americas should be regularly represented at GET meetings.

# *Ministries of Health to appoint a representative for future meetings. WHO to secure funding to support the attendance of these representatives.*

3. Given the success of this year's meeting and the opportunities provided for "lessons learned," it was concluded that while it is necessary to be mindful of meeting costs and logistical challenges, it may be useful to consider holding future GET2020 meetings at other regional WHO offices.

# WHO and the Ad-hoc Working Group to take forward this recommendation, next year meeting will be in Geneva.

4. The progress of integrating trachoma into NTDs is very welcome and is in alignment with the global NTD integration initiative. In this context, it is important to recognize that SAFE is a four-arm integrated strategy for prevention, control and treatment; antibiotics are one, albeit crucial component of SAFE. We must ensure that S, F and E are not overshadowed by A. The WHO NTD scorecard should aim at including all components of the SAFE strategy.

#### WHO and STAG NTD to follow-up as appropriate.

5. The driving force of the NTD framework was acknowledged at the meeting: a public health expert with knowledge of trachoma and trachoma elimination programs should be included among the membership of STAG-NTD.

#### WHO and STAG NTD to follow-up as appropriate.

6. Some countries are close to being ready to apply for verification of elimination; there is an urgent need to provide formal guidance from WHO/STAG-NTD on what information should be included in a dossier to verify elimination of trachoma, and what processes and channels should be used for its submission.

#### WHO and STAG NTD to follow-up as appropriate.

7. WHO should include the GET 2020 alliance stakeholders in the process to develop the trachoma strategic plan for the NTD roadmap. WHO is recommended to use the 20/20 Insight document as a starting point for the strategic plan. The trachoma strategic plan should be completed and incorporated into the NTD roadmap by the end of 2012.

#### WHO (PBD and NTD) to follow-up as appropriate.

8. There is an urgent need to confirm the safety of co-administering Azithromycin with the other drugs used for PCT, particularly those that will be used for extended periods of time. While it is important to include the WHO and the relevant pharmaceutical companies in this process, ITI should lead the research effort.

#### ITI to follow up as appropriate.

- 9. It is imperative that WHO finalize the new single data reporting form by August of 2012. Having a single data reporting form will minimize the reporting burden for countries, particularly since the new electronic version of the form will be pre-filled with information from prior years. Thus, countries will only need to update that information, rather than starting over with a blank form each year.
  - a. All countries must provide full and complete information (to the extent it is available) in the WHO data forms each year.
  - b. The forms must be submitted in a timely fashion such that they are received by the WHO secretariat in Geneva by April 1st.
  - c. Although the data is from the countries and national MOHs hold primary responsibility for completing and submitting the forms to WHO, all partners—including the national trachoma task force and local WHO country offices and regional offices—have a very important role in helping countries provide complete information.
  - d. Countries should submit their completed forms to the appropriate WHO regional office (Regional Offices to identify deadline) for review several weeks prior to the April 1st deadline for submission to the WHO GET2020 secretariat. The regional offices will be responsible for working with national governments to obtain missing information and clarify any uncertainties before submitting the final versions of the forms to the WHO GET2020 secretariat in Geneva.
  - e. WHO will investigate the feasibility of providing forms in two formats--online and in a spreadsheet file.

#### WHO and ITI to verify by end September 2012 technical, feasibility and accessibility issues.

- 10. The WHO secretariat should report on progress achieved on all recommendations at each GET 2020 meeting.
- 11. An Ad-hoc Working Group should continue to be assembled before the GET2020 meeting to assist the secretariat in the planning. The next GET2020 meeting should take into account the evaluation of the GET16 meeting, and in particular the expressed request for more discussion time.
- 12. Reports from the surveillance working group and the GSM 3 group should be disseminated via the Internet by the fall of 2012.

#### WHO to follow up as appropriate.

- 13. The partners from the Alliance should provide assistance to WHO for a revised Trachoma Program Managers Guide, which should be completed before the end of 2012.
- 14. There is an urgent need to improve the quality and quantity of TT surgical activity. Partners and national governments are encouraged to step up surgical campaigns and outreach programs so as to rapidly reduce the number of prevalent cases and to treat the incident cases of TT in a timely manner.
  - a. Partners providing training should screen potential surgeons for visual acuity, manual dexterity, and other critical skills, prior to initiating said training.
  - b. The national MOH should use the WHO document on final assessment of surgeons to certify surgeons for practice.
- 15. The active participation of representatives of the water, sanitation and hygiene sector (WaterAid) was warmly welcomed. Presentations by the WASH sector on best practices and how they apply to trachoma control should be included in the next meeting.

# WHO to work with WASH through WaterAid, in collaboration with International Partners.

# Date and place of GET17 meeting

It was recommended that the GET17 meeting be held at the end of April 2013, but that it was not possible to set a date a present. The date will be linked to the receipt of data forms, and must also take into account the WHA meeting, which is scheduled for May 2013.

It was agreed that the GET17 meeting will be held in Geneva.

#### Annex 1: List of Participants

Agatha ABOE Global Trachoma Programme Coordinator Sight Savers International P.O. Box KIA 18190 Airport Accra GHANA

Peter ACKLAND Chief Executive Officer International Agency for the Prevention of Blindness LSHTM Keppel St. London WCIE 7HT UNITED KINGDOM Telephone No. : +233 24 431 15 88 Fax No. : +233 30 278 02 27 Email : aaboe@sightsavers.org

Telephone No. :+44 207 922 2969 Email : packland@iapb.org

Gregory ANDERSON Program Officer, International Programs Conrad N. Hilton Foundation 10100 Santa Monica Blvd., Ste. 1000 Los Angeles 90067 USA

Robin BAILEY Professor of Tropical Medicine Department of Clinical Research Faculty of Infectious & Tropical Diseases London School of Hygiene and Tropical Medicine Keppel St. London WCIE 7HT UNITED KINGDOM

Colin BECKWITH Deputy Director International Trachoma Initiative The Task Force for Global Health 325 Swanton Way Decatur, GA 30030 USA

Matthew BURTON Senior Lecturer London School of Hygiene and Tropical Medicine Keppel Street London WCIE 7HT UK Telephone No. : +1 310 272 7203 Email :gregory@hiltonfoundation.org

Telephone No. : +207 927 2914 Fax No. : + 207 637 4316 Email : robin.bailey@lshtm.ac.uk

Telephone No. : +1 404 592 1434 Fax No.: +1-404-371-1138 Email : cbeckwith@taskforce.org

Telephone No. : +255 765 73 03 93 Email : matthew.burton@lshtm.ac.uk Simon BUSH Director Neglected Tropical Diseases & Director Advocacy Sight Savers International P.O. Box 18190, Airport Accra GHANA

Carleigh COWLING Senior Surveillance Officer National Trachoma Surveillance and Reporting Unit University of New South Wales Cnr West + Boundry St. Darlinghurst, Australia 2010 AUSTRALIA

Lisa DICKMAN Assistant Director The Carter Center Trachoma Control Program 1149 Ponce de Leon Avenue Atlanta, GA 30306 USA

Christine DUBRAY Epidemiologist USAID Global Health Bureau Neglected Tropical Diseases 1437, 28<sup>th</sup> Street S Arlington, VA, 22206 USA

Paul EMERSON Director Trachoma Control Program The Carter Center 1149 Ponce de Leon Avenue Atlanta, GA 30306 USA

Jennifer FENLEY-DUFFY Director, Integrated Partnerships U.S. Fund for UNICEF 125 Maiden Lane New York, N.Y. 10038 USA Telephone No. : +233 302 77 42 10 Fax No. : +233 302 78 02 27 Email : sbush@sightsavers.org

Telephone No. : +01 29 385 08 65 Email : ccowling@kirby.unsw.edu.au

Telephone No.: +1 404 420 38 58 Email : Imdickm@emory.edu

Telephone No.:+1 505 615 57 39 Email : cdubray@usaid.gov

Telephone No. : +1 404 420 38 76 Fax No. : +1 206 282 2194 Email : Paul.Emerson@emory.edu

Telephone No. : +1 212 922 25 40 Email : jduffy@unicefusa.org Teshome GEBRE Regional Representative International Trachoma Initiative The Task Force for Global Health 325 Swanton Way Decatur, GA 30030 USA

Lisa ROTONDO Deputy Director RTI International 701 13<sup>th</sup> St. NW Suite 750 Washington, DC 20005

Pablo GOLDSCHMIDT Praticien Hospitalier Ministere de la Santé CHNO des XV-XX 28 rue de Charenton 75012 Paris FRANCE

Emily GOWER Associate Professor Wake Forest School of Medicine Wake Forest Health Sciences Medical Center Boulevard Winston-Salem, NC 27157 USA

Danny HADDAD Director International Trachoma Initiative The Task Force for Global Health 325 Swanton Way Decatur, GA 30030 USA

Karen HEINICKE-MOTSCH Coordinator Advisory Working Group Christoffel Blinden Mission 19233 Misty Meadow Terrace Germantown, MD 20874 USA Telephone No. : +1 251 91 120 3524 Fax No.: +1 404-371 1138 Email : tgebre@taskforce.org

Telephone No.: +1 202 974 7890 Email: Irotondo@rti.org

Telephone No. : +336 8507 5746 Fax No. : +331 4002 1699 Email : pablogol@aol.com

Telephone No. : +336 716 2184 Email: egower@wakehealth.edu

Telephone No. : +1 404 678 56 23 Fax No. :+1 404 371 1138 Email : dhaddad@taskforce.org

Telephone No. : +1 541 515 85 35 Fax No. : +1 240 912 62 66 Email :kheinickemotsch@cbmus.org Martin KOLLMANN Program Director for NTDs Christoffel Blinden Mission Central Africa Regional Office P.O. 58004 – 00200 Nairobi KENYA

Kazuichi KONYAMA Ass. Prof in Ophthalmology Department of Ophthalmology Jutendo University School of Medicine No. 3-3 Choome Hongo, Bunkyo-ku Tokyo 113 JAPAN

Richard LE MESURIER IAPB 538 Swanston Street Carlton VIC 3053 AUSTRALIA

Chad MacARTHUR Director of Neglected Tropical Disease Control Helen Keller International 1840 Harpswell Neck Rd. Hasrpswell, ME 04079 USA

Neeraj MISTRY Managing Director Global Network for Neglected Tropical Diseases Washington, DC. USA

Aryc MOSHER The Carter Center Assistant Director Ponce de León, GA 30002 USA Telephone No. : + 254 20 3751 798 Fax No. : +254 20 374 0309 Email : mkollmann@cbmi-mbo.org

Telephone No. :+4 2958 934 5 Fax No. :+4 2958 9345 Email : juntenop@iris.dti.ne.jp

Telephone No. :+61 040 518 77 56 Fax No.: +61 3 833 08 111 Email : rtlemes99@gmail.com

Telephone No. : +1 207 833 7344 Fax No. : +1 212 532 6014 Email : cmacarthur@hki.org

Telephone: 202 842 50 25 Email: Neeraj.mistry@sabin.org

Telephone No. :+ 1 770-355-5468 Fax No. : +1 404 874 55 15 Email : awmoshe@emory.edu Beatriz MUNOZ Associate Professor of Ophthalmology Wilmer Eye Institute Room 118 600 North Broadway Baltimore, Maryland 21205 USA

Serge RESNIKOFF President Organisation pour la Prévention de la Cecité Villa d'Alesia 75014 Paris FRANCE

Virginia SARAH Director of Strategic Initiatives The Fred Hollows Foundation 61 Dunning Avenue Rosebery AUSTRALIA

Lisa SCHECHTMAN Head of Policy and Advocacy WaterAid in America 1400 16<sup>th</sup> Street NW, Suite 210 Washington DC 20036 USA

Hiroshi SHIOTA Emeritus Professor Dept. of Ophthalmology University of Tokushima Hachiman-cho, Otsubo 40-13 Tokushima City 770 8079 JAPAN

Anthony SOLOMON Honorary Lecturer Clinical Research Department/LSHTM London School of Hygiene & Tropical Medicine Keppel St, London WCIE 7HT UNITED KINGDOM Telephone No. : +1 410 955 25 56 Fax No. : +1 410 955 0096 Email : bmunoz@jhmi.edu

Telephone No. : +41 78 778 36 99 Email: serge.resnikoff@gmail.com

Telephone No. : +61 2 8741 1946 Email: vsarah@hollows.org

Telephone No. :+1 202 729 67 97 Email:schechtman@wateraidamerica.org

Telephone No. : +81 88 668 0015 Fax No. : +81 88 668 0015 Email : hiroshishiota@gmail.com

Telephone +44 0 7927 23 02 Fax No. : +44 7947 027 927 Email: anthony.solomon@lshtm.ac.uk Hugh TAYLOR Laureate Professor Melbourne School of Population Health University of Melbourne 207 Bouverie Street Carlton VIC 3053 AUSTRALIA

Emily TOUBALI Program Manager of NTD Control Helen Keller International 352 Park Avenue South, Suite 1200 New York, NY 10010 USA

Ian VALE ICTC Consultant Helen Keller International UNITED KINGDOM

Ann VARGHESE IMA World Health Senior Program Officer 1111 19<sup>th</sup> Street, NW Washington DC 20036 USA

Yael VELLEMAN Senior Policy Analyst (Health & Sanitation) WaterAid 47-49 Durham St. London, SE11 5JD UNITED KINGDOM

Angela WEAVER USAID GH/HIDN/ID 1300 Pennsylvania Ave NW Washington, DC 20523 USA

Sheila WEST Professor at Johns Hopkins School of Medicine 8 St. Georges Rd. Baltimore, MD USA Telephone No. : +61 8344 9320 Fax No. : +61 3 9662 3859 Email : h.taylor@unimelb.edu.au

Telephone No. : +1 646 472 03 29 Fax No. : +1 212 532 60 14 Email : etoubali@hki.org

Email: ipvale@yahoo.com

Telephone No. : 410 635 8720 Email : annvarghese@imaworldhealth.org

Telephone No. : +44 20 7 793 4599 Email : yaelvelleman@wateraid.org

Telephone No.: +202-712-4320 FAX: 202-216-3524 Email : aweaver@usaid.gov

Telephone No. : +1 410 955 2606 Fax No. : +1 410 955 0096 Email : shwest@jhmi.edu Boateng WIAFE Regional Director for Africa Operation Eyesight P.O. Box SR 267,

Wondu Alemayehu GEBREMICHAEL GM & Consultant Ophthalmologist PO box 6307 Addis Ababa ETHIOPIA

Alemayehu Sisay HUNDLE Country Director Orbis International Ethiopia Yeka Subcity Addis Abab ETHIOPIA Telephone No. : + 233 302 780 810 Fax No. : +233 302 780 810 Email : bwiafe@operationeyesight.com

Telephone No. : +251 115 539 409 Email : walemayehu@berhan-health.org

Telephone: +251 911 405 007 Fax: +251 116 620 995 Email: alemayehu.sisay@orbis.org

#### **NATIONAL REPRESENTATIVES**

Mariamo Saide ABDALA MBOFANA Focal Point of Elimination of Blinding Trachoma Av. Eduardo Mondlane No. 1083, 2nd floor, Flat A Maputo MOZAMBIQUE

Awad Hassan MOHAMED AHMED National Coordinator Sudan Trachoma Control Program Federal Ministry of Health Nile Avenue P.O Box 631 Khartoum SUDAN

Tawfik K. AL KHATIB National Eye Health Coordinator Ministry of Public Health and Population Sana'a YEMEN Telephone No. : +258 82 32 03 910 Email : mariamoabdala@yahoo.com.br

Telephone No. : + 249 (0) 183 741 422 Fax No. : + 249 (0) 183 785 536 Email : drawad\_1973@yahoo.com

Telephone No. : +967 7777 868 46 Fax: +967 7156 207 11 E-mail: tawfik234@yahoo.com Khaled AMER National Coordinator of Prevention of Blindness 79 EL Nozha St. Heliopolis, Cairo EGYPT

Sanoussi BAMANI Coordinateur National Programme national contre la Cécité Ministère de la Santé BP 228 Quartier du flenne, Coui de VANSSA Bamako MALI

Lucienne BELLA Coordonnateur PNLC Ministère de la Santé publique Yaoundé CAMEROON

Issa Abdi BOGOREH Coordinateur Adjoint du PNLC Balbala Hospital Djibouti REP. OF DJIBOUTI

Stanley BUBIKIRE Coordinator Disability Prevention and Rehabilitation Ministry of Health P.O.Box 7272 Kampala UGANDA

Seiha DO National Coordinator for Prevention of Blindness #121, Street 110 Sangkat wat Phnom Phnom Pehn CAMBODIA Telephone No. : + 01 221 040 873 E-mail: amerk88@hotmail.com

Telephone No. : +223 66 75 90 56 Fax No. : +223 20 23 89 30 Email : smbamani@yahoo.fr

Telephone No. : +23 7199 96 52 86 Email : ngonbidjoe@yahoo.fr

Telephone No. : +00 253 81 94 81 Fax: + 00 253 21 36 08 38 Email : bogoreh@hotmail.com

Telephone No. : + 256 41 25 1930 Email : bubikire@yahoo.com

Telephone No. : + 855 1284 0796 Fax No. : +855 232 11 072 Email : doseiha@gmail.com SAS Quadra 4, Bloco A 7 Ed Ppal Brasilia DF CEP 70.304.000 **Oscar DEBRAH** 

National Coordinator Prevention of Blindness Eye Care Unit Ghana Health service **PMB** Ministries Accra GHANA

**Djore DEZOUMBE Coordonnateur PNLC** Hôpital Général de Reference Dendjamena Bp :130 CHAD

Rosa CASTALIA

2 and ar

BRAZIL

SVS/Ministry of Health

Armando ELIZONDO Director **Onchocerciasis Program and Vector Borne Diseases** Secretary of Health 13 de Septiembre #42 int. 6. Col. Escandón, Del. Miguel Hidalgo Mexico, D.F. C.P. 11800 MEXICO

Berhanu Feyisa TILLA Chief of Staff Office of the Minister of Health Addis Ababa **ETHIOPIA** 

André GOEPOGUI Coordonnateur Programme National de Lutte Contre L'onchocercose et la Cecite et Les Maladies Tropicales Negligees Ministère de la Santé et de L'Hygiene Publique Boîte Postale 585 Conakry **GUINEA** 

Telephone No. : +55 61 3213 8240 Email : rosa.castalia@saude.gov.br

Telephone No. : +233 302 66 6815 Email: oscardebrah2005@yahoo.com

Telephone No. : +235 66 29 59 17 Email: dedjo6@yahoo.fr

Telephone No: 011 (52) 5526146461 Fax: 011 (52) 5526146462 Email : aelizondog@gmail.com

Telephone No.: 251 911 4800 86 Email: berhanuzhrm@yahoo.com

Telephone No. : + (00224) 602 931 59 Email: agoep@yahoo.fr

Jaouad HAMMOU Chef du Service Des Maladies Oculaires Otologiques Ministère de la Santé 71 Avenue Ibn Sina, Agdal Rabat MOROCCO

Fabiola HERNADEZ Coordinator Trachoma Program ISECH Chiapas, MEXICO

Nhu Hon DO Director National Institute of Ophthalmolgy 85 Batrieu St Hai Batrung – Hanoi VIETNAM

Ailian HU National Committee for Prevention of Blindness Eye Department of Beiging TonRen Hospital, Capital Medical University #1 Dong Jiao MinXiang St. Dong cheng District, Beijing 100730 CHINA

Fredrick KAGONDU National Eye Health Coordinator Division of Ophthalmic Services PO BOX 725 Thika 01000 KENYA

Khumbo KALUA Senior Community Ophthalmologist Ministry of Health Lions Sightfirst Eye Hospital P.O Box E180 Blantyre MALAWI Telephone No. : +212 537 67 12 44 Fax No. : +212 537 67 12 98 Email : hjaouad2020@yahoo.fr

Telephone No : +52 961.618.9250 Email : <u>trachoma.chis@hotmail.com</u>

Telephone No. : +84 438 228 958 Fax No. : +84 439 438 004 Email : bvmtw@vnio.vn

Telephone No. : + 86 10 582 68 276 Fax No. : + 86 10 652 64384 Email : halzxf@yahoo.com.cn

Telephone No.: 0122815162 (+254) Email : fkagondu@yahoo.com

Telephone No. : + 265 999958176 Fax No. : + 265 1873103 Email : khumbokalua@yahoo.com Marie Madeleine KOUAKOU Directeur Coordonnateur du Programme PNLCé 25 BP 299 Abidjan 25 COTE D'IVOIRE

Sujaya KRISHNAN Joint Secretary to Government of India Ministry of Health and Family Welfare Rino 151A Nirman Bhawan New Delhi - 110108 A126 Atul Grove Road New Delhi 110001 INDIA

Khin Nyein LIN Program Manager Trachoma Control Department of Health Ministry of Health Nay Pyi Taw MYANMAR

Rafael MIRANDA Epidemiologist Ministry of Health and Social Protection COLOMBIA

Sailesh Kumar MISHRA Program Director National Trachoma Program Tilathi - 3 Saptari, NEPAL

Upendo John MWINGIRA NTD National Coordinator Ministry of Health and Social Welfare P.O BOX 9083 DAR ES-SALAAM TANZANIA Telephone No. : +00225 22 44 3701 Fax : +00225 22 44 3783 Email : magoly\_koua@yahoo.fr

Telephone No.: +011 2306 2426 Fax: +011 2306 2406 Email : sujayakrishnan@yahoo.com

Telephone No.: 95 67 42 1202 Fax No. : 95 67 42 1202 Email : khinnyeinlin@gmail.com

Telephone No: 57 1 330.5000 Email : cne@minproteccionsocial.gov.co

Telephone No. : + 00 977- 984 124 1014 Fax No. : + 00 977 1 4261 166 Email : kath@nnjs.wlink.com.np

Telephone No. 255-78-3276177 Fax No.: 255-22-2121376 Email : umwingira@yahoo.com Kangwa Ichengelo Mulenga MUMA National Eye Health Coordinator Ministry of Health Headquarters Noeke House P.O. Box 30205 Haile Selassie Road Lusaka ZAMBIA

Dawson Bob MBULAMBERI National Coordinator for NTD Health Service (Vector People Disease Control) Ministry of Health P.O. Box 7272 Kampala UGANDA

Nkundwe MWAKYUSA National Eye Coordinator Ministry of Health and Social Welfare P.O Box 9083 Dar es Salaam, UNITED REPUBLIC OF TANZANIA

Onesime NDAYISHIMIYE Directeur du Programme National Integre de Lutte Contre Les Maladies Tropicales Négligées et La Cecite Avenue de Efato – Unis d' Amérique BATIMENTS EX-PSP II Bujumbura BURUNDI

Jean NDJEMBA Chef du bureau des maladies oculaires Direction de Lutte contre La Maladie Ministère de la Santé No 41 Justice GONBE Kinshasa DEM. REP. OF CONGO

Benjamin Chukwuemeka NWOBI National Coordinator National Eye Health Programme Federal Ministry of Health Abuja. FCT NIGERIA Telephone No.: + 00 243 8150 866 55 Email : drndjemba@yahoo.fr

Telephone No.: 256 772 508 919 Fax: 256 414 231 584 Email: mbulamberidawson@yahoo.com

Telephone No. : +255 22 213 0009 Fax: +255 22 213 0009 Email : nkundwemwakyusa@yahoo.com

Telephone No. : + 234 803 705 40 08 Email : emekanwobi@hotmail.com

Telephone No.:+ 257 799 100 36 Email :ndayones@yahoo.fr

Telephone No. : +260 978 731 074 Fax: +260 211 253 344 Email : mkmuma@yahoo.com Abdallahi OULD MINNIH ABDALLAI Coordinateur Programme National de lutte contre la Cécité Ministère de la Santé B.P. 4158 Nouakchott MAURITANIA

Dr Ahmad Shah SALAM National Coordinator Comprehensive Eye Care ahmadshahsalam2003@yahoo.com Ministry of Public Health Public Health Avenue Kabul AFGHANISTAN

Boubacar SARR Coordinateur Programme national contre la Cécité Ministère de la Santé et de la Prévention Médicale 4 Avenue Aimé Césaire BP 4024, Dakar SENEGAL

Oliver SOKANA National Trachoma Coordinator Ministry of Health PO Box 349 Honiara SOLOMON ISLANDS

Khamphoua SOUTHISOMBATH Director Ophthalmology Center Ministry of Health Suphanouvong Rd – Km 8 Ban Thougpong, Sikhottabong District, Vientiane Capital LAOS

Georges YAYA Directeur du Programme national de lutte contre la cécité (maladies cécitantes) Telephone No. : + 222 22 24 37 84 Email : aouldminnih@yahoo.fr

Telephone No. : +93 70 29 85 10 Fax No. : +93 20 23 01 37 Email :

Telephone No. : + 221 77 550 77 73 Fax No. : + 221 33 869 42 06 Email : bouksarr@yahoo.fr

Telephone No. : + 677 20830 / 20160 Fax: + 677 20085 Email : osokana@moh.gov.sb

Telephone No. : + 856 20 556 017 20 Email : southi1961@gmail.com

Telephone No. : 236 75 50 58 85 Fax No. : 236 61 04 35 Email : geya@live.fr BP 556 Bangui, Cite Larue CENTRAL AFRICAN REP.

#### OBSERVERS

Julie JENSON Director Supply Chain Pfizer 235 East 42nd Street New York, NY 10017-5703 USA Telephone No. : +1 212 833 1551 Fax No. : +1 212 733 2980 Email: juliem.jenson@pfizer.com

#### WORLD HEALTH ORGANIZATION - REGIONAL OFFICES

Jon ANDRUS Deputy Director WHO/PAHO

Steven AULT Regional Advisor Neglected Infectious Diseases WHO/PAHO

Luis G. CASTELLANOS Coordinator Prevention & Control of Communicable Diseases WHO/PAHO

Laura CATALA Regional Specialist Neglected Infectious Diseases WHO/PAHO

Abdul Hannan CHOUDHURY Regional Advisor Control & Prevention of Blindness and Deafness WHO/EMRO

Catherine DUARTE

Telephone No.: +1 202 974 31 78 Email.: deputydirector@paho.org

Telephone No.: +1 202 974 38 96 Email : aultstev@paho.org

Telephone No.: 1 202 974 31 91 Email : castellanosl@paho.org

Telephone No. +1 202 974 31 42 Email: catalal@paho.org

Telephone No.: +010 266 09 66 Email : choudhurya@who.int

Telephone No. +1 202 974 34 87

Project Support Specialist Neglected Infectious Diseases WHO/PAHO

Ana Nilce ELKHOURY Regional Advisor Leishmaniasis WHO/PAHO

Enrique GIL International Consultant Communicable Diseases WHO/PAHO Brazil Office

Andreas MUELLER Technical officer Prevention of Blindness and Deafness WHO/WPRO

Ruben Santiago NICHOLLS Regional Advisor for Leprosy & for NID Sub-regional Advisor for Neglected Infectious Diseases, Brazil WHO/PAHO

Martha SABOYA Regional Specialist Neglected Infectious Diseases WHO/PAHO

Boureima H. SAMBO Coordinator, NCDs Programme Area Prevention of Blindness and Deafness P.O. Box 06 Cité du Djoué Brazzowille, Congo WHO/AFRO

Chamaiparn SANTIKARN Regional Advisor Disability & Injury Prevention and Rehabilitation WHO World Health House Ghandi Mang, India, New Delhi WHO/SEARO duarteca@paho.org

Telephone No. 1+ 202 974 90 40 Email: <u>aelkhoury@panaftosa.ops-oms.org</u>

Telephone No. +1 202 974 15 16 Email: gilenriq@bra.ops-oms.org

Telephone No. +632 528 98 85 Email : muellera@wpro.who.int

Telephone No. + 011 55 61 32 51 94 92 Email: nicholls@bra.ops-oms.org

Telephone No. +1 202 974 38 75 Email: saboyama2@paho.org

Telephone No.: +47 241 39372 Email : sambob@afro.who.int

Telephone No.: +91 99 100 660 31 Email: santikarnc@searo.who.int Juan Carlos SILVA Regional Advisor Prevention of Blindness Carrera 7<sup>a</sup> #71-21 Piso 9no, Colombia WHO/PAHO Telephone No.: +571 314 4141 Email: silvajuan@paho.org

#### WORLD HEALTH ORGANIZATION - HEADQUARTERS

Nick BANATVALA Acting Coordinator Prevention of Blindness and Deafness WHO/HQ

Dirk ENGELS Coodinateur Control of Neglected Tropical Diseases WHO/HQ

Silvio Paolo MARIOTTI Secretary GET2020 Prevention of Blindness and Deafness WHO/HQ Telephone No. : +41 22 791 18 82 Email : banatvalan@who.int

Telephone No. : +41 22 791 38 24 Email : engelsd@who.int

Telephone No. : +41 22 791 34 91 Email : mariottis@who.int