REPORT OF THE 19TH MEETING OF THE WHO ALLIANCE FOR THE GLOBAL ELIMINATION OF

TRACHOMA BY 2020

HAMMAMET, TUNISIA, 27–29 APRIL 2015

World Health Organization

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The Alliance thanks Anna Last and Lionel Nizigama for their work as meeting rapporteurs, and Karen Ciceri-Reynolds, Chad MacArthur, Anthony Solomon and Patrick Tissot for drafting and finalizing this report.

Abbreviations and acronyms

DFID	United Kingdom Department for International Development
GET2020	Global Elimination of Trachoma by 2020
GTMP	Global Trachoma Mapping Project
ICTC	International Coalition for Trachoma Control
ITI	International Trachoma Initiative
MDA	mass drug administration
NGO	nongovernmental organization
NTD	neglected tropical disease
SAFE	Surgery, Antibiotics, Facial cleanliness, Environmental improvement
TF	trachomatous inflammation – follicular
TT	trachomatous trichiasis
USAID	United States Agency for International Development
WASH	water, sanitation and hygiene

Introduction

The purpose of the annual meeting of the WHO Alliance for the Global Elimination of Trachoma by 2020 (GET2020) is to assess progress towards the elimination of trachoma, exchange information and experiences, distil learning, explore partnership opportunities and establish priority actions in order for all countries to meet the 2020 target.

The 19th meeting of the Alliance was held at the Russelior Hotel, Hammamet, Tunisia, from 27 to 29 April 2015.

The agenda is included as *Annex 1* and the list of participants as *Annex 2*.

SESSION 1

WELCOME AND PROGRESS REPORTS

Welcome

Dr Anthony Solomon, World Health Organization

Dr Solomon welcomed participants to the meeting in his capacity as Secretary of the WHO Alliance for GET2020 and on behalf of Dr Dirk Engels, Director, Department of Control of Neglected Tropical Diseases, World Health Organization (WHO). The chairs of the meeting were elected by acclamation as follows: Day 1 – Professor Abou Amza and Professor Sheila West; Day 2 – Dr Wondu Alemayehu and Dr Georges Yaya; and Day 3 – Dr Rosa Castalia and Professor Serge Resnikoff. Mr Chad MacArthur was elected rapporteur.

The purpose of the 19th meeting was to monitor progress towards the global elimination of trachoma, exchange information and experiences, review opportunities and identify hindrances to the achievement of the GET2020 goal. The meeting would provide specific opportunities to discuss (i) the progress of the Global Trachoma Mapping Project (GTMP) and plans for how the trachoma community would address population-based prevalence surveys after the GTMP concludes; (ii) the global status of implementation of the SAFE strategy; (iii) the progress made in mobilizing resources to support the elimination goal; (iv) the outcomes of recent technical and scientific meetings; (v) the relevant global activities of WHO and nongovernmental organizations (NGOs); (vi) coordination with other neglected tropical diseases (NTDs); and (vii) cooperation with the water, sanitation and hygiene (WASH) sector.

The desired outcomes of the meeting were: (i) global monitoring of progress towards elimination; (ii) exchange of information on implementation of the SAFE strategy; (iii) input from Alliance members on coordination with alliances against NTDs other than trachoma; (iv) input from Alliance members on recent and proposed new developments; and (v) an enhanced sense of shared mission

within the Alliance. The meeting report would capture these outcomes and the progress made towards achieving resolution WHA 51.11[1], and be shared with endemic countries and current and future partners.

The importance of this meeting and its objectives was highlighted by the fact that only 68 months remain until the end of December 2020.

[1] Resolution WHA51.11. Global elimination of blinding trachoma. In: Fifty-first World Health Assembly, Geneva, 16 May 1998. Resolutions and decisions, annexes. Geneva: World Health Organization; 1998 (http://www.who.int/blindness/causes/WHA51.11/en/, accessed December 2016).

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WHO REPORT

Dr Anthony Solomon (Medical Officer, Trachoma, WHO/NTD Geneva)

Dr Solomon summarized progress made since the 18th meeting of the Alliance (Addis Ababa, 28–29 April 2014), namely:

- Continued progress in mapping;
- Revision of the standard operating procedures for surveillance;[1]
- Revision of the standard operating procedures for impact surveys;[1]
- Preparation of a generic framework on NTDs containing standard operating procedures for certification of eradication, verification of elimination of transmission and validation of elimination as a public health problem[2]; the document was ratified by the WHO Strategic and Technical Advisory Group for Neglected Tropical Diseases at its meeting in 2016;
- Planning of a GTMP-like platform for impact and surveillance surveys; [3]
- Launch of several significant programmes for funding of SAFE strategy interventions;
- Launch of the Ethiopian initiative to clear the trachomatous trichiasis (TT) backlog;[4]
- Launch of HEAD START – a tool for training TT surgeons;[5]
- Approval by the Trachoma Expert Committee of the International Trachoma Initiative (ITI) for donation of 113 million doses of azithromycin for distribution in 2015;
- Preparation of a global strategy on WASH and NTDs; [6,7]
- Initiation of a network of WHO collaborating centres for trachoma;[8]
- Preparation of an action plan for trachoma in the Pacific Islands;
- Design of a new WHO trachoma website;[9] and
- Agreement between WHO and ITI on data sharing.

Of the 58 countries where trachoma is or was endemic, 56 had received the Trachoma Elimination Monitoring Form, of which 50 had completed and returned the forms to WHO in time for the data to be included for the meeting. The new format had been positively received, and several good suggestions had been made to refine the template.

Good progress has been made in implementing the SAFE strategy globally. A total of 138 533 trichiasis surgeries were performed in 2014, compared with 233 976 in 2013 and 169 121 in 2012 (*Fig. 1*); the apparent decrease in surgical output from 2013 to 2014 reflects, in part, collection of more accurate data.

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[1] Technical consultation on trachoma surveillance, 11–12 September 2014, Task Force for Global Health, Decatur, USA. Geneva: World Health Organization; 2015 (WHO/HTM/NTD/2015.02).

[2] Generic framework for control, elimination and eradication of neglected tropical diseases. Geneva: World Health Organization; 2016 ((WHO/HTM/NTD/2016.6).

[3] Hooper PJ, Millar T, Rotondo LA, Solomon AW. Tropical Data: a new service for generating high quality epidemiological data. Community Eye Health Journal. 2016;29:38.

[4] Mengitsu B, Shafi O, Kebede B, Worku DT, Hereo M, French M et al. Ethiopia and its steps to mobilize resources to achieve 2020 elimination and control goals for neglected tropical diseases: spider webs joined can tie a lion. International Health. 2016;8Suppl1:i34–i52.

[5] Gower EW, Kello AB, Kollmann KHM. Training trichiasis surgeons: ensuring quality. Community Eye Health Journal. 2014;27:58.

[6] Water sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases: a global strategy 2015–2020. Geneva: World Health Organization; 2015.

[7] Boisson S, Engels D, Gordon BA, Medlicott KO, Neira MP, Montresor A et al. Water, sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases: a new Global Strategy 2015–20. International Health. 2016;8Suppl1:i19–i21.

[8] Network of WHO Collaborating Centres for Trachoma: inception meeting report. Decatur, GA, USA, 19–20 February 2015. Geneva: World Health Organization; 2015 (WHO/HTM/NTD/2016.3).

[9] http://www.who.int/trachoma/en/

In 2014, 52 million doses of antibiotics were distributed for trachoma elimination purposes, compared with 54.9 million in 2013 (*Fig. 2*). Antibiotic distribution will need to be increased considerably over the next few years in order to achieve the minimum acceptable coverage of 80% in each district in which the TF prevalence is currently over the elimination threshold.

Work remains to be done to make reporting on implementation of the F and E components of SAFE more straightforward, more meaningful and more complete.

Dr Solomon reviewed the recommendations of the 18th meeting of the Alliance, and updated participants on actions taken in response. Most of the recommendations have been addressed or are being addressed.

Openness with data should be fundamental to working as a community from now until the global programme's goal is reached. Making this practical will require careful thought and discussion to ensure that national interests, individual intellectual property, and ethical standards to protect patients are all appropriately safeguarded.

Priorities for the next 12 months are to:

1. Publish the annual article on trachoma in the Weekly Epidemiological Record;
2. Recalculate the backlog of TT cases and the current population at risk;
3. Build increased capacity in endemic countries;
4. Prepare a second edition of the programme managers' manual;
5. Further align ITI/WHO and trachoma/NTDs;
6. Validate several countries as having eliminated trachoma as a public health problem; and
7. Seek additional human resource capacity for trachoma at WHO headquarters.

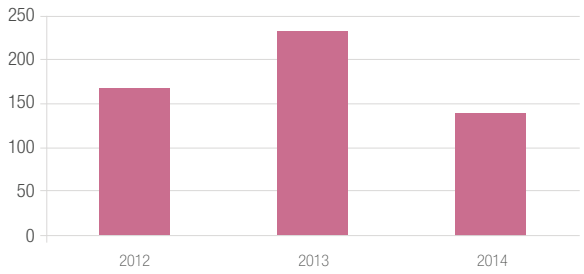

Fig. 1 Number of people receiving operations for trachomatous trichiasis, worldwide, 2012–2014 (in thousands)

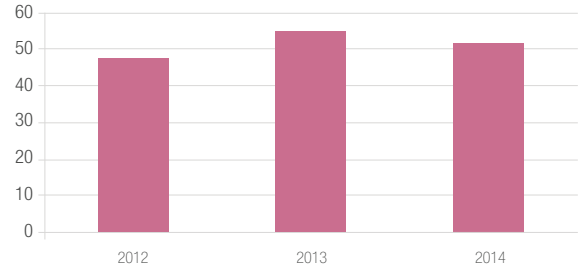

Fig. 2 Number of people receiving antibiotics for trachoma elimination purposes, worldwide, 2012–2014 (in millions)

Global Trachoma Mapping Project update

Mr Tom Millar, Sightsavers

Mr Millar described the GTMP and its outputs to date. The project started in 2012, with a target of mapping the (then-estimated) remaining 1238 districts in which trachoma was suspected to be endemic but for which prevalence data had yet to be collected. While working with national programmes to define more precisely where to map, several hundred more suspected-endemic districts have been identified. It has now collaborated in the mapping of 1487 districts, which represents 94% of districts that are currently secure and accessible; the remaining 87 districts are targeted for mapping in 2015. Currently, an estimated 289 districts are suspected to be endemic but, for various reasons, are inaccessible for mapping.

In response to the concerns of those countries in which districts were considered "inaccessible" or "insecure" and where mapping is needed before funding ends in 2015, Mr Millar gave reassurance that GTMP's core funders – the United Kingdom's Department for International Development (DFID), and the United States Agency for International Development (USAID) – had confirmed their support for and endorsement of the GTMP systems and methodologies as a platform that will allow baseline mapping to be completed in full worldwide, irrespective of timescale. Although the DFID funding expires at the end of 2015, other sources of support will be available to complete the global baseline map. Expertise and proven tools have been built that will allow countries to leverage funding from other donors with the support of partner organizations.

Mr Millar requested national and international partners to use these data to initiate treatment, particularly in evaluation units found to have prevalences of trachomatous inflammation—follicular (TF) ≥ 30% in children aged 1–9 years, where the remaining five years before 2020 will be needed to complete the first phase of recommended interventions before impact surveys are done. The available data should be used in a concerted manner to advocate for and increase resources for trachoma elimination. As data on F and E are collected within GTMP-supported surveys, an opportunity exists to use them for programmatic decision-making. National governments own the data and are thus responsible for reporting and publishing them, knowing that GTMP and WHO will provide full support. Sightsavers will issue a call to academic institutions interested in working with countries to undertake further analyses.

Finally, Mr Millar said that the successful completion of baseline mapping will demand the full involvement of all endemic countries. Further engagement with countries that have not yet participated in the GTMP or provided data to the Global Atlas of Trachoma is in progress, and it is hoped that there will be opportunities to work with those countries soon.

Regional report: African Region

Dr Simona Minchiotti, WHO Regional Office for Africa

Dr Minchiotti presented a number of highlights from the African Region. Among the indications of progress towards the GET2020 goal are the numbers of surgeries that have been conducted in Ethiopia (65 000) and the similarly encouraging surgical output in Nigeria. Such progress is important because in both countries the prevalence of trachoma is high and populations are large. For the A component, there is good coordination of national and international partners, strengthened data collection at country level and an increased number of endemic districts achieving ≥ 80% antibiotic coverage. In addition, countries are increasing the extent to which the F and E components are embedded in their trachoma programmes, which should predict sustainable elimination efforts.

The African Region still faces a number of challenges, notably the magnitude of the existing surgical backlog. Although some figures may be overestimated (as suggested by GTMP recalculations) it may still be problematic for countries to reach the elimination threshold of a prevalence of TT unknown to the health system of < 0.2% in adults aged ≥ 15 years.[1] This challenge is compounded by the difficulties that countries face in acquiring the necessary surgical equipment and consumables in a timely and

[1] Validation of elimination of trachoma as a public health problem. Geneva: World Health Organization; 2016 (WHO/HTM/NTD/2016.8).

sustainable manner. Dr Minchiotti offered the services of the WHO Regional Office for Africa to help resolve this problem. In addition to addressing the backlog of TT cases, a number of districts in the region are still falling short of the minimum acceptable coverage of 80% for antibiotic mass drug administration (MDA). Other concerns affecting the Region's progress include the outbreak of Ebola virus disease, security issues, lack of human resources, adverse administrative processes and other competing public health priorities.

Regional report: Eastern Mediterranean Region

Dr Ismat Chaudhry, WHO Regional Office for the Eastern Mediterranean

Dr Chaudhry reported that of the 22 countries in the Eastern Mediterranean Region, one (Oman) has been recognized by WHO as having eliminated trachoma as a public health problem, three (Islamic Republic of Iran, Morocco, and Saudi Arabia) are in the pre-validation stage, and seven (Afghanistan, Djibouti, Egypt, Pakistan, Somalia, Sudan, Yemen) report that trachoma remains a public health problem. The other countries of the region claim to be trachoma-free, although there is limited evidence to confirm or refute this.

Mapping in Egypt, Sudan and Yemen is due for completion in 2015 and planning for mapping in Afghanistan and Pakistan is under way. In 2014, Pakistan applied (for the first time) to ITI for an azithromycin donation for its trachoma elimination programme, and Sudan and Yemen submitted requests to continue receiving donated medicine. A number of endemic districts in Sudan are planning impact surveys. Sudan is implementing SAFE in full in most of its endemic districts. In November 2014, Yemen held a trachoma action planning workshop, targeting 2015 in which to begin azithromycin MDA. Yemen has secured funding from the World Bank to support its elimination efforts. In December 2014, facilitators were trained in trachoma action planning in Bahrain.

The Region faces security challenges and complex emergency situations that prevent or interrupt mapping and programme implementation. Weak coordination and lack of partnerships between the trachoma community and the WASH sector are undermining the full implementation of SAFE.

Regional collaboration among endemic countries has increased, making the role of the Regional Office more and more critical. The four countries that are in the pre-validation stage will need assistance from WHO to formally validate and acknowledge national elimination of trachoma as a public health problem.

Regional report: Region of the Americas

Ms Martha Saboyá, WHO Regional Office for the Americas

Trachoma is known to be endemic in Brazil, Colombia, Guatemala and Mexico. These four countries are at different points along the pathway towards elimination. Mexico is near elimination and is conducting surveillance; Guatemala is preparing for impact surveys, although funding for them still needs to be identified; and Brazil and Colombia are still implementing the SAFE strategy, with further mapping needed.

In the Region of the Americas, much of the F component is implemented through both school-based and community-based activities, while the E component is largely delivered through intersectoral collaborations focusing on access to water, and construction and use of latrines. In contrast with other regions (particularly the African Region), TT

surgery is performed by ophthalmologists and oculoplastic surgeons. In all four endemic countries, plans for integrated implementation with other neglected infectious diseases exist for MDA, particularly for the co-administration of azithromycin and albendazole.

In moving ahead, the Regional Office will work with countries to implement SAFE in full where needed and help secure support to extend mapping, especially among remote populations of the Amazon Basin. It will also help countries that claim to have eliminated trachoma to implement surveillance and validation protocols, referring to WHO headquarters for technical guidance. Integration of post-validation surveillance for trachoma with that for other neglected infectious diseases is an emerging issue for the region.

Challenges include securing funding for impact surveys and surveillance surveys, as well as for training and expanded mapping. Some seed funding is available but additional funds are required. Remote areas such as the Amazon basin are expensive and logistically difficult places in which to work. Other challenges include TT case-finding, informatics and laboratory capacity.

In conclusion, Ms Saboyá noted that trachoma, more than being a problem, should be seen as an opportunity to reach the people most in need and to reduce poverty and inequalities.

SESSION 2

OPERATIONALIZATION OF THE DEFINITION OF "TT UNKNOWN TO THE HEALTH SYSTEM"

Prepared by Mr Sailesh Kumar Mishra, Nepal Netra Jyoti Sangh (unable to attend); presented by Professor Sheila West, Johns Hopkins University

With the prevalence of TF in 1–9 year-olds now < 5% in all formerly-endemic districts, the focus of the Nepal programme is on finding TT cases, for which female community health volunteers are being mobilized to assist. Most of the trichiasis that has been identified, however, is non-trachomatous, with no evidence of trachomatous conjunctival scarring; such cases are not recorded as TT. This has reduced the apparent backlog of TT cases by about 85%, which has implications both for planning programme end-points and for surveillance.

A discussion ensued as to whether individuals who refuse surgery or cases of recurrence should be included in the numerator for the TT case burden. Refusal and recurrence need adequate definitions and a plan for clinical management within the health system. Uptake of surgery can be low, and exploring the reasons for this, through qualitative research, is critical to allow programmes to design a functional referral system.

TT IN MAURITANIA

Professor Abdallahi Ould Minnih, Ministère de la Santé, Mauritania

The prevalence of TT in Mauritania is 0.26%. It is considered an old disease because the prevalence has not changed for many years; however, continual surveillance is needed to detect incident TT cases and provide surgical services where and when necessary. Areas endemic for TT predominate in the north of the country, where populations are difficult to access. Challenges include: lack of surgical equipment; insufficient training and personnel; the need for mobile screening and surgery; inadequate organization of services; and complications after surgery. An integrated approach with other ophthalmological services,

such as cataract surgery, is helping to improve some of these shortcomings, although any cost savings that result have yet to be studied.

TF (but not TT) is found along some areas of the Senegalese border. Targeted antibiotic treatment, rather than MDA, has been implemented in these areas. In Mauritania overall, the prevalence of TF remains at approximately 7%.

SUPPORTIVE SUPERVISION IN TT SURGERY

Professor Lamine Traore, Ministère de la Santé et de l'Hygiène Publique, Mali

The national trachoma programme has set 2017 as its target date for elimination. By December 2014, an estimated 20 636 cases of TT needed to be addressed. A particular focus of the programme is on improving the supervision of surgeons, including monitoring of surgical outcomes.

A recent evaluation of surgical referrals and surgeries revealed problematic follow up and inadequate data collection. In Kayes Region, five districts were chosen and 20 people reported to have had surgery in those districts were selected for follow up within 3 months of surgery. Only 70% could be located, of whom only 70% had actually received operations. Among those who had been operated on, post-operative TT was found in 30%. The evaluation also noted that 16% of eyes that had been operated on did not correspond to the eye that was reported to have received surgery. This exercise has helped to identify specific training needs for surgeons, to identify a number of patients for whom re-operation is required and to provide more reliable data. It has also highlighted the need for supervision for quality control purposes.

RE-CALIBRATING THE GLOBAL TRICHIASIS BACKLOG

Ms Rebecca Mann Flueckiger, London School of Hygiene & Tropical Medicine

The most recent (2012) formal estimate of the global backlog of trichiasis, incorporating data collected up to 2011, estimated the backlog at 7.3 million people.[1] Data contributing to this global estimate, however, were not standardized by age and sex. If GTMP methodologies for standardizing data[2] are applied to non-GTMP data, the TT burden in many areas might be far lower than the current estimate would indicate. Efforts are under way, at the request of WHO, to update the global backlog estimate, using a combination of the latest survey data generated as part of the GTMP, standardization of old estimates where original datasets are available, and retention of old estimates where the original data are unavailable. The R code used for the calculations is available to any interested party from Ms Flueckiger or WHO. Ideally, all raw data collected from national programmes would be incorporated in this analysis to further refine national and global burdens. A useful discussion about the methodology for the new estimate followed the presentation.

[1] Global WHO Alliance for the Elimination of Blinding Trachoma by 2020. Wkly Epidemiol Rec. 2012;87:161–8.
[2] Solomon AW, Pavluck A, Courtright P, Aboe A, Adamu L, Alemayehu W et al. The Global Trachoma Mapping Project: methodology of a 34-country population-based study. Ophthalmic Epidemiol. 2015;22:214–25.

THINKING BIG: CLEARING THE TT BACKLOG IN ETHIOPIA

Mr Oumer Shafi, Federal Ministry of Health, Ethiopia

Ethiopia has a large TT backlog. At the Alliance's 18th meeting in 2014, the Federal Minister of Health announced a government commitment to clear the backlog within 18 months, with significant government financial backing.[1] The strategies used to achieve this objective will be a combination of static site services, outreach to high prevalence areas and mobile teams. Considerable quantities of equipment and a large number of trained and certified[2] TT surgeons will be required to implement the plan, which is expected to begin in September 2015. The Ministry's own funds will be complemented by contributions from the robust partnership of NGOs currently active against trachoma in Ethiopia.

BREAKOUT SESSION A1. HOW SHOULD WE IMPROVE GTMP SYSTEMS FOR FUTURE WORK?

Rapporteur: Rebecca Mann Flueckiger

The group discussed the advantages of the GTMP system, including the speed at which results were made available to programmes; the quality assurance and quality control components built into the system; the ability to leverage data for implementation; the use of standardized approaches; and the process of data approval.

Governments must be involved at the outset of the project planning phase, through formal agreements. GTMP systems should be discussed in detail with health ministry personnel to alleviate any concerns about data being processed with the help of partners. The criteria for including districts in baseline mapping work should be clearly outlined.

In terms of logistics, vehicles for fieldwork could be purchased rather than rented. Training could be enhanced through use of a web-based training tool, extra data recorders could be trained to serve as alternates, and a supervision plan that specifies the role of the supervisor could be included in the training manual.

The group considered the following actions: include trachomatous conjunctival scarring (TS) in the survey; incorporate a mechanism to correct data entry errors in the field; provide health ministries with live visibility of cluster-level data while surveys are in progress to improve the ability of programmes to review results; maintain a record of data in-country through an automated connection; and generate maps of prevalence as an automated output of the system.

The group unanimously agreed that it would support the use of the GTMP system for impact and pre-validation surveillance surveys, and requested that WHO lead the process of setting up a mechanism to facilitate this.

[1] Mengitsu B, Shafi O, Kebede B, Kebede F, Worku DT, Herero M et al. Ethiopia and its steps to mobilize resources to achieve 2020 elimination and control goals for neglected tropical diseases: spider webs joined can tie a lion. International Health. 2016;8Suppl1:i34–i52.

[2] Merbs S, Resnikoff S, Kello AB, Mariotti S, Greene G, West SK. Trichiasis surgery for trachoma, 2nd edition. Geneva: World Health Organization; 2015.

BREAKOUT SESSION A2. THE NEW STANDARD OPERATING PROCEDURES FOR TRACHOMA SURVEILLANCE

Rapporteur: Professor John Kempen

The discussion began by recalling the elimination thresholds, which are:

- a prevalence of TT unknown to the health system of < 0.2% in adults aged ≥ 15 years; and
- a prevalence of TF in children aged 1–9 years of < 5.0%.

The group discussed whether other process objectives, which have sometimes been used by programmes, are part of the definition of elimination of trachoma as a public health problem. Such objectives include, for example, the proportions of communities in which health education has been provided, the proportions of households with a functional latrine or other safe methods of disposing of human faeces; and the proportions of households within a defined distance of a water point. Achieving these objectives is not necessarily required for validation of trachoma elimination, which is defined using disease prevalence thresholds alone.[1]

The goal of surveillance for trachoma is to provide a level of assurance that the elimination goal has been achieved and sustained, or to detect the re-emergence of disease. The group endorsed the new standard operating procedures for surveillance defined by WHO.[2] It welcomed the removal of the previous requirement to estimate prevalence at sub-district level and the recommendation that after demonstration of a TF prevalence in 1–9 year-olds at impact survey of < 5%, no interventions or active surveillance are needed until a formal pre-validation surveillance survey is undertaken two years later. Documenting TT cases that are known to the system, i.e. people with TT who have been offered management, was recognized as important but challenging, as was documenting whether trichiasis is trachomatous, to avoid misclassification.

Having defined the indicators and the goal of surveillance, the question arose as to whether the current survey designs were adequate. The group noted that sample size calculation methods had been used, and that the desired precision of prevalence estimates could be achieved with an appropriate sample size. However, in estimating the prevalence of TT (desired detectable proportion of 0.2% in adults) the sample sizes would have to be much greater than those for TF (desired detectable proportion < 5.0% in adults). Information from adjacent districts (perhaps discounting statistical information relative to the direct information from a sample from the district in question) may be required to estimate TT prevalence more precisely. Bayesian approaches might also be considered if they reduced the required sample size. Potentially, programmes could incorporate information on the numbers of surgeries with assumptions about success rates, although this would need further consideration.

The group noted the importance of refresher training for field teams before every series of surveys, particularly when a long interval had occurred between series.

[1] Validation of elimination of trachoma as a public health problem. Geneva: World Health Organization; 2016 (WHO/HTM/NTD/2016.8).

[2] Technical consultation on trachoma surveillance. 11–12 September 2014, Task Force for Global Health, Decatur, USA. Geneva: World Health Organization; 2015 (WHO/HTM/NTD/2015.02).

It is important also to avoid implying that trachoma is no longer a public health problem when only the TF elimination targets have been met, because reducing the prevalence of TT below the threshold is critical.

Studies to evaluate the use of indices other than the prevalence of TF are under investigation as possible adjuncts or alternative methods to using TF alone for assessing the future risk of trachoma-related blindness in a population.

BREAKOUT SESSION A3. VALIDATION OF ELIMINATION OF TRACHOMA AS A PUBLIC HEALTH PROBLEM

Rapporteur: Dr Santiago Nicholls

The technical criteria for validation of elimination of trachoma as a public health problem have been noted above. With these criteria in mind, the minimum content of the dossier should include: (a) the results of baseline surveys; (b) a description of the interventions implemented against trachoma; (c) the results of impact surveys; (d) the results of pre-validation surveillance surveys; (e) a description of ongoing implementation of TT surgery services; (f) a proposal for post-validation monitoring and surveillance; and (g) historical information about areas where trachoma is not a public health problem, where available.

It is not recommended to carry out population-based prevalence surveys to demonstrate that no trachoma is found in areas in which it is known that trachoma does not exist. The group endorsed the proposal of a 2014 technical consultation[1] that the same methodologies now employed as standard for baseline surveys should be used for impact surveys and pre-validation surveillance surveys.

In the two-year interval between an impact survey and the pre-validation surveillance survey, work to detect incident TT cases and promote F and E activities should be maintained.

BREAKOUT SESSION A4. UPDATE ON HEAD START

Rapporteur: Dr Emily Gower

The HEAD START mannequin-based TT surgery training system has now been implemented in 10 countries. Feedback on the system has been exceptionally positive. Efforts are under way to expand the pool of master trainers, who teach in-country surgeons how to use HEAD START as part of their initial or in-service training. Individuals interested in helping to identify potential master trainers should contact Emily Gower (egower@email.unc.edu). Supplies for the HEAD START system can be purchased through her, or via the website of the International Agency for the Prevention of Blindness (http://www.iapb.org/).

[1] Technical consultation on trachoma surveillance, 11–12 September 2014, Task Force for Global Health, Decatur, USA. Geneva: World Health Organization; 2015 (WHO/HTM/NTD/2015.02).

SESSION 3

CO-ADMINISTRATION OF AZITHROMYCIN AND ALBENDAZOLE

Prepared by Dr Julián Trujillo Trujillo, Ministerio de Salud y Protección Social, Colombia (unable to attend); presented by Ms Martha Saboyá, WHO Regional Office for the Americas

Colombia co-administers azithromycin and albendazole for three reasons: (i) epidemiologically, trachoma and soil-transmitted helminth infections are co-endemic; (ii) operationally, access to the co-endemic areas is difficult, and administering treatment to some of the semi-nomadic indigenous populations during two community visits is logistically challenging; and (iii) funding is limited. No contraindication to co-administration could be found in the literature. So far, the two medicines have been co-administered during three MDA rounds with no excessive incidence of adverse events.

INTEGRATION OF TREATMENT CAMPAIGNS FOR MULTIPLE NTDS

Dr Rosa Castália, Ministerio da Saude, Brazil

Brazil conducts integrated programmes for leprosy, soil-transmitted helminth infections and trachoma. The areas of convergence identified for these diseases are as follows: trachoma and leprosy both lead to physical impairment and require active case-finding, often within people's homes; soil-transmitted helminth infections and trachoma both require WASH as a critical part of the strategy for control and elimination; and all three diseases are poverty related, indicate poor living conditions and are often co-endemic, particularly in the north of Brazil where the heaviest burdens of disease are found.

The integrated methodologies include the use of a "self-image" form (mirror method) to identify potential suspected cases of leprosy, a clinical examination, treatment for confirmed leprosy cases, and household surveillance. Soil-transmitted helminth infections are treated

with albendazole (400 mg single dose). For trachoma, the programme identifies cases and co-administers treatment with azithromycin to affected persons and their household contacts. No severe adverse events have been reported as a result of this approach.

In summary, there seems to be no problem with co-administration of azithromycin and albendazole in this setting, although it was acknowledged that this finding is based on limited data. WHO guidance is needed on the safety of co-administration of medicines against neglected tropical diseases, particularly since Brazil is planning to co-administer ivermectin and azithromycin against scabies and trachoma.

DOES TF ALWAYS NEED TO BE TREATED?

Dr Luisa Cikamatana Rauto, Ministry of Health & Medical Services, Fiji

MDA of azithromycin is recommended on the basis of the prevalence of TF in 1–9-year-olds, as determined in a population-based prevalence survey. A series of surveys conducted in Fiji in 2012 indicated that the prevalence of TF was > 10% in each of its four divisions; the mean prevalence was 15%.[1] Another study in Fiji, however, suggested that the prevalence of conjunctival Chlamydia trachomatis infection (as determined by PCR) was very low.[2] As a result, the Ministry of Health and Medical Services had to decide whether to conduct azithromycin MDA in areas with moderately high TF prevalence, in areas with no TT and very low prevalence of C. trachomatis infection.

The Ministry decided to conduct a single round of azithromycin MDA and to evaluate its impact through an impact survey incorporating both examination for and PCR of C. trachomatis infection. Further research is ongoing.

MDA IN THE NEWEST COUNTRY IN THE WORLD

Dr Wani Mena, Juba Teaching Hospital, South Sudan

Almost 50% of the population of South Sudan is estimated to live in communities where trachoma is a public health problem. Surveys in several counties show the prevalence of TF in children aged 1–9 years of ≥ 30%; in some it is ≥ 80%. Population-based prevalence surveys are needed in additional counties that the GTMP has been unable to access due to civil unrest.

For the same reason, MDA of azithromycin is limited and in some areas of high prevalence has resulted in interruption of treatment after multiple rounds of MDA. Impact surveys are probably indicated in such areas, rather than simply resuming MDA, and will hopefully be conducted soon, so that further trachoma elimination activities can be planned.

THE CONTRIBUTION OF ANTIBIOTICS TO TRACHOMA'S ELIMINATION AS A PUBLIC HEALTH PROBLEM IN MOROCCO

Dr Jaouad Hammou, Ministère de la Santé, Morocco

Morocco was the first country to use azithromycin for trachoma elimination purposes. From 1999 to 2005, trained health workers administered 700 000 doses

[1] Trachoma mapping in the Pacific: Fiji, Solomon Islands and Kiribati. Melbourne: International Agency for the Prevention of Blindness Western Pacific Regional Office; 2013.

[2] Macleod CK, Butcher R, Mudaliar U, Natutusau K, Pavluck AL, Willis R et al. Low prevalence of ocular Chlamydia trachomatis infection and active trachoma in the Western Division of Fiji. PLoS Negl Trop Dis. 2016;10:e0004798.

of azithromycin each year, leading to the elimination of trachoma as a public health problem. The success of the programme was attributed not only to the profound effect of azithromycin but also to the strong political commitment of different government sectors, strong partnerships with a shared focus on trachoma elimination and the guidance of a strategic trachoma action plan.

Morocco is now in the stage of post-elimination surveillance, using a sentinel site system with case-finding, treatment and epidemiological follow-up involving contact tracing.

ITI REPORT

Dr Paul Emerson, ITI

In 2015, ITI expects the largest ever global scale-up of Zithromax MDA, with applications having been approved for 771 endemic districts, up from 596 in 2014. ITI's challenge is its ability to meet those scale-up needs. For 2015, 113 million treatments are required, 20 million of which are already available in countries from previous years. Pfizer can provide 70 million doses, leaving a situation in which demand exceeds supply by 23 million doses for the year.

As interim measures to address this shortfall for 2015, ITI's Trachoma Expert Committee has recommended that:

1. ITI strictly adheres to its "Green Light" checklist, ensuring that the mechanisms for delivery of Zithromax within countries are in place before shipments leave Brussels.
2. ITI makes multiple shipments of smaller quantities, rather than large shipments in advance of future requirements.
3. ITI ships 95% of the doses needed to treat the entire estimated eligible population, rather than 100%, to minimize residual stock in the country after MDA.
4. ITI works with partners to postpone MDAs to late 2015 or early 2016 in areas where funding is still unconfirmed, and in Western Amhara.

Dr Emerson noted that the transfer of donated Zithromax between countries had been attempted in the past but it had been challenging. Uganda was the only country expected to have excess stock, and the quantity expected to be in excess there was very small. Such transfers are therefore not likely to help the current shortfall. Transfers between districts within a country may be undertaken at the national programme's discretion, with communication of plans to do so to ITI.

In terms of substituting Zithromax with other antibiotics such as tetracycline eye ointment, Dr Emerson noted that the remit of ITI is to support the SAFE strategy with donated Zithromax; the use of other antibiotics would be the responsibility of individual programmes.

The Alliance was assured that normal manufacture of Zithromax would resume by the end of 2015; no further production problems were expected.

Where there is demand for scale up, a simultaneous downscaling is occurring in some places: 128 districts, with a resident population of 12.6 million people, have met the elimination prevalence thresholds and further MDA of azithromycin is no longer necessary.

Dr Emerson also addressed the issue of disposal of empty Zithromax containers, for which there is no ITI policy. The containers could not, however, be recycled for the use of

Zithromax but could be recycled for alternate use in communities; before doing so, the labels should be defaced.

ITI is working with WHO and the International Coalition for Trachoma Control (ICTC) to harmonize the collection and management of data on SAFE implementation, and coordinating with the GTMP and other partners to streamline the process of undertaking impact surveys.

ICTC REPORT

Professor Martin Kollmann, CBM and ICTC

ICTC provides an innovative forum for shared learning and joint programming. At the global level it is a large, diverse coalition of likeminded partners focusing on resource mobilization and coordination, while at national level it comprises dedicated, knowledgeable members supporting national programmes, who are in turn supported by ICTC's global resources such as the preferred practices documents and various working groups.

Professor Kollmann noted the significant recent progress in trachoma elimination, attributing this success to (i) strong global partnership, (ii) leadership programmes, (iii) adherence to the SAFE strategy; (iv) the Pfizer donation of Zithromax, (v) increased donor interest, funding and coordination, and (most recently) (vi) the strategic partnership within the WASH sector to strengthen implementation of the F and E components of SAFE.

A number of ICTC technical resources are or will be available shortly in English, French and Portuguese, including *Organizing trichiasis surgical outreach;*[1] *Training of trainers for trichiasis surgeons,*[2] *an updated guide to Trachoma action planning,*[3] *a Trichiasis counselling guide,*[4] *a Training curriculum for trichiasis case identifiers,*[5] *Micro-planning for effective Zithromax® mass drug administration* [6] *and a Practical guide to partnering and planning for F&E*[7].

Notwithstanding the funding currently available for trachoma, estimates suggest that the resources on offer represent only one-third of that needed to achieve the GET2020 goal. ICTC considers advocacy to fill this funding gap as a priority.

ICTC is consulting with WHO to identify training gaps and secure funding for capacity building in endemic countries. It is also tracking progress towards elimination, with support from the Fred Hollows Foundation and PricewaterhouseCoopers to design a Global SAFE Implementation Calculator that will provide more realistic estimates of funding needs and guide future strategic directions for funding.

[1] Organizing trichiasis surgical outreach: a preferred practice for program managers. London: International Coalition for Trachoma Control; 2015.
[2] Training of trainers for trichiasis surgeons. London: International Coalition for Trachoma Control; 2014.
[3] Trachoma action planning. London: International Coalition for Trachoma Control; 2015.
[4] Trichiasis counselling guide. London: International Coalition for Trachoma Control; 2016.
[5] Training curriculum for trichiasis case identifiers. London: International Coalition for Trachoma Control; 2015.
[6] Micro-planning for effective Zithromax® mass drug administration. London: International Coalition for Trachoma Control; 2015.
[7] All you need to know for F&E: a practical guide to partnering and planning. London: International Coalition for Trachoma Control; 2015.

DONOR PANEL

Mr Joseph Belisle, Pfizer; Mr Philip Albano, Lions Club International Foundation; Dr Andrew Cooper, the Queen Elizabeth Diamond Jubilee Trust; Mr Iain Jones, DFID; Mr Warren Lancaster, the END Fund

Pfizer is scaling up production of Zithromax to meet increased demand. It remains committed to the global trachoma elimination programme.

The **Lions Club International Foundation** prioritizes trachoma projects that adopt the SAFE strategy in full. It provides US$ 2–3 million each year in project funding and has a new stream of funding for operational research. Eye care capacity-building is a major focus of Sight First within an overall vision of integrated eye care services.

The **Queen Elizabeth Diamond Jubilee Trust** focuses on Commonwealth countries. Funding will be available for five years only. It focuses on two programme areas: a youth leaders programme, entitled The Queen's Young Leaders; and the Global Blindness Programme, which includes diabetic retinopathy, retinopathy of prematurity, trachoma and strengthening of eye care systems. Trachoma elimination is being funded in multiple countries in Africa and the South Pacific. The Trust is interested in further research on the F&E components of SAFE, and in sustainable surveillance systems.

The **End Fund**, which focuses on NTDs, has a small tranche of funds dedicated to trachoma and particularly to azithromycin MDA. Mr Lancaster encouraged applications from NGOs or country programmes for funding and noted that matched funding was available.

DFID provides funding for the GTMP, the implementation of SAFE in a number of countries in Africa and integrated NTD programmes. It has aligned its trachoma funding with that of the Trust and Sightsavers. It also supports integrated eye care programmes. DFID focuses on delivering results and value for money in high impact, cost–effective programmes that can be scaled up. It is interested in operational research that will further foster the above, and seeks an increased, consolidated donor base from both international and in-country sources while recognizing the current shortfall of funding.

In response to questions posed by meeting participants, the following points were made:

In terms of support for regional initiatives, the Lions Club International Foundation is one possible funder; another is the World Bank. Donors agreed that having a clear, detailed budget increases the likelihood of funding.

In response to a question concerning possible donor fatigue as the prevalence of trachoma reduces, it was indicated that resources for surveillance and elimination processes would continue to be made available provided that clear planning was evident and that impact and cost–effectiveness were demonstrated. Donors emphasized the importance of partners at country level, and requested the assistance of ICTC and its members to help bridge the gap between health ministries and donors' head offices.

SESSION 4

BREAKOUT SESSION B1. WHAT MORE CAN I DO FOR MY DONORS?

Rapporteur: Dr Karim Bengraine

A number of points were discussed in tackling this question. First, trachoma elimination programmes need to be as efficient and effective as possible and specify what needs to be measured for reporting back to donors. In making promises to donors, the realities of the field and any anticipated constraints must be reflected in what programmes promise. Targets must be feasible; when they are not met, the reasons why must be clearly outlined.

Secondly, recipients of donor funding must better understand donors' needs, so that those needs can be met and parties can advocate for further funding.

Finally, donors should be assisted in understanding the technical aspects of trachoma elimination programmes. All partners should contribute to more completely quantifying and communicating the contributions of endemic countries – including infrastructure, human resources, logistics and finances – and be recognized when analysing funding gaps.

BREAKOUT SESSION B2. INTEGRATION WITH OTHER NTD OR PREVENTION OF BLINDNESS PROGRAMMES

Rapporteur: Ms Martha Saboyá

The definition of integration should be clear, taking into account the specific situation in question. What do we mean by trachoma + NTDs; or trachoma + blindness programmes; or trachoma + WASH? Integration should also be understood in the framework of strengthening health systems, including local health systems.

The group suggested various characteristics that are key to successful integration: flexibility, based on needs; opportunism; context-specific, i.e. tailored to the local epidemiological and geopolitical situation; phase-specific, recognizing that considerations differ if a programme is scaling-up, scaling-down or in the post-elimination phase. It was agreed that some level of verticality can be maintained within integration.

The drivers for integration should be: cost–effectiveness; sustainability; and the need for a holistic approach, as communities tend to be affected by several problems, not only by trachoma.

The advantages of integration are many and include the fact that integration looks not at diseases but at communities and their needs; integration makes advocacy more effective; integration works to strengthen overall health systems at each level; integration promotes sustainability; integration increases efficiencies and effectiveness and raises the visibility of the programme; and integration increases coverage for all the various elements of the integrated programme.
Possible disadvantages of integration include: loss of focus within a programme that tries to do too many things; overburdening of health workers and community volunteers; duplication of efforts and/or lack of timely implementation if planning is inadequate; and various operational issues that may arise by having too many moving parts.

The general recommendation of the group was that integration should be based on an analysis of the local situation, the capacity of the system and its various players, the needs of the programmes for which integration is being considered, and the potential added value that integration might bring.

BREAKOUT SESSION B3. HOW CAN WE MAXIMIZE ANTIBIOTIC COVERAGE?

Rapporteur: Dr Simona Minchiotti

A number of ideas and suggestions were made. In terms of micro-planning, there is a need to have adequate per diems or other incentives for drug distributors. This might require advocacy at the central level to harmonize incentives for people involved in all phases of the distribution including planning. Social mobilization is a critical element and to strengthen efforts, involving the correct stakeholders at community level before starting the distribution is essential. This might be further strengthened if programmes mobilize and encourage the involvement of women who have demonstrated a high level of commitment to these types of activities. Furthermore, influential people, such as village chiefs, should be engaged as effective advocates at all levels who can help also to circumvent politics becoming a factor.

Improved supervision was seen as a necessity and changes in current systems should be evaluated to measure impact. Spot checks as a method of random supervision were recommended. It was also proposed that data collection tools should be simplified to be more easily used by drug distributors, recognizing that many distributors are volunteers from the community in whom literacy levels are often low.

Coverage may also be enhanced by opportunistically integrating with other programmes such as immunization campaigns. There is also a need to distribute using multiple approaches: some programmes start a campaign using static sites but after a number of days begin house-to-house distribution, in order to find those who did not initially present themselves.

BREAKOUT SESSION B4. THE NEW COMBINED ITI/WHO DATA REPORTING AND ZITHROMAX® REQUEST FORM

Rapporteur: Mr Alex Pavluck

The new combined ITI/WHO form was recognized to be a significant advance, reducing the number of forms that countries and partners need to complete; however, a number of challenges were cited. The rating scale questions for implementation of F and E are new and somewhat confusing; the forms would ideally be contextualized to the maturity of the programme; and improved instructions are needed. An additional suggestion was that

the form includes a facility to allow required quantities of tetracycline eye ointment to be calculated..

TRACHOMA SCIENTIFIC INFORMAL WORKSHOP REPORT

Professor Sheila West, Johns Hopkins University

Diverse topics were presented during this year's Trachoma Scientific Informal Workshop, focusing on a wide range of areas, although it was noted that there was an absence of reports addressing facial cleanliness and environmental improvement. Notable findings and conclusions from the Workshop included:

1. People with trichiasis are more likely to be poor and to report lower quality of life than their peers without trichiasis living in the same village. This is an important message for advocacy purposes.
2. Training of TT surgeons should include ensuring that the incision extends across the width of the eyelid, and that peripheral lashes are correctly rotated. Use of an appropriately-sized surgical clamp is important.
3. We should not assume that all trichiasis is due to trachoma, and we should not assume that all epilation is motivated by trichiasis. The WHO simplified trachoma grading scheme definition of trichiasis is: at least one eyelash rubs on the eyeball, or evidence of recent removal of in-turned eyelashes.[1] However, eyelashes sometimes touch the eyeball for reasons other than trachoma, and evidence is emerging that some people in Fiji epilate eyelashes that are not in-turned. Such cases should not be counted as cases of TT.
4. Data from Nepal and the United Republic of Tanzania showed that districts in which impact surveys estimated TF to be < 5%, and in which MDA was stopped, had estimated TF prevalences at the pre-validation surveillance survey stage that remained < 5%.

[1] Thylefors B, Dawson CR, Jones BR, West SK, Taylor HR. A simple system for the assessment of trachoma and its complications. Bull World Health Org. 1987;65:477–83.

SESSION 5

AN INTEGRATED HAND AND FACIAL CLEANLINESS CAMPAIGN IN TURKANA REGION

Dr Michael Gichangi, Ministry of Health, Kenya

Turkana is one of the poorest regions in Kenya. The baseline TF prevalence was 42% and the proportion of children with clean faces was 46% at the time of the survey. The aim of this pilot project was to determine if it was feasible and acceptable to integrate face-washing into school-based hand-washing campaigns. In 10 schools, messages were delivered indicating the five critical times to wash hands and face with soap and water: (i) before breakfast, (ii) before lunch, (iii) before dinner, (iv) while bathing, and (v) after toilet use. Messages were imparted by teacher trainers; children passed on the messages as "agents of change", recruiting their peers at household level.

After 21 days, the following behavioural changes in schools and households were detected: (i) improved uptake of face-washing in schools; and (ii) marginal improvement (limited data) at households. These preliminary data allowed investigators to conclude that the concept is acceptable, but needs to be customized.

ENLISTING HELP (AND DATA) FROM OTHER SECTORS FOR TRACHOMA ELIMINATION

Dr Patrick Turyaguma, Ministry of Health, Uganda

In Uganda, baseline surveys revealed a prevalence of TF in children aged 1–9 years exceeding intervention thresholds in 36 districts. Impact surveys carried out in 22 districts show that considerable progress has been made. Of the 22 districts, 12 had TF prevalences < 5%; eight districts had TF prevalences between 5% and 9.9%; while two districts had TF prevalences that were still ≥ 10%. Recognizing the need to sustain these achievements, considerable focus is being put on the F and E components of the SAFE strategy. In Uganda, this requires coordination and collaboration with a number of sectors, specifically: (i) Environmental Health Division, Ministry of Health; (ii) Ministry of Water and Environment; (iii) Ministry of Education and Sports; (iv) National Water and Sanitation Working Group; and (v) the Uganda Water and Sanitation NGO Network. These various governmental and non-governmental groups not only bring collaborative potential to the table but also have invaluable data to help the

country determine its needs in the context of trachoma.

In developing this concerted effort, the national trachoma programme hosted a national F&E planning meeting to strengthen coordination and collaboration with WASH partners and to prepare an F&E strategy for the Trachoma Elimination Programme. The key activities of this strategy are: (i) integration of F&E messages in the National Sanitation Guidelines; (ii) integration of F&E messages in School Sanitation Guidelines; (iii) WASH partners to integrate trachoma SAFE messages in existing activities and leverage water points in trachoma endemic areas; (iv) development and broadcast of radio and video messages; (v) District Education Dialogues on WASH and trachoma; (vi) Ministry of Health NTD Programme to become a member of the National Sanitation Working Group; and (vii) identification of WASH partners to join the NTD Technical Committee.

THE F AND E CONTRIBUTION TO TRACHOMA ELIMINATION IN MEXICO

Dr Nadia Angelica Fernandez Santos, Centro Nacional de Programas Preventivos y Control de Enfermedades, Mexico

In the State of Chiapas, Mexico, 267 localities and six municipalities are endemic for trachoma. The population at risk is 363 537. Mexico has made great progress, having reduced TF below elimination thresholds. However, work continues to promote F and E, particularly in schools. Having formed trachoma brigades, the State currently has 25 people working exclusively on elimination including promoting hand and face washing to children. In 2014, 233 schools were targeted with educational activities for prevention of trachoma, through activities related to personal hygiene. In a 2014 survey of facial cleanliness in the five endemic municipalities of Chiapas, only 312 of 44 371 children examined had dirty faces or visible nasal or ocular secretions.

One of the keys to Chiapas's success has been the commitment of the State in providing an additional five health centres since 2012, raising the number from 41 to 46. Also, local investment has provided 10 125 people with improved access to water; and the proportion of schools with a water supply has increased from 50% to 64%.

The next steps for the trachoma elimination programme are to: (i) implement a surveillance survey in non-known endemic municipalities of the State of Chiapas to compile the evidence to support the request for validation of elimination to WHO; (ii) strengthen the committees created at national and sub-national levels for the validation of elimination of trachoma as a public health problem in Mexico; (iii) use the capacity developed for trachoma to tackle other NTDs at the local level, including integrated visual health activities; (iv) strengthen activities in schools, and (v) operate on all incident TT cases.

THE F AND E CONTRIBUTION TO TRACHOMA ELIMINATION IN GHANA

Dr Oscar Debrah, Ministry of Health, Ghana

At baseline, trachoma-endemic districts in Ghana had prevalences of TF ranging from 3% to 16% and prevalences of facial cleanliness among children of 67%. Only 2% of households had latrines; access to water was similarly poor. One difficulty was that the provision of water and adequate sanitation was not the remit of the Ministry of Health, requiring intersectoral collaboration. This issue was offset by the fact that many stakeholders from health, education and WASH were involved in initial planning of and budgeting for SAFE

implementation. There has been a strong collaboration between the Ministry of Health and other ministries, especially those of Education, Women and Children's Affairs; and Local Government and Rural Development, together with both international and national NGOs working in health and WASH. Working together, radio messages have been produced and disseminated; community durbars have taken up the issue; school health activities for trachoma have been integrated into the basic school curriculum; information, education and communication materials have been produced; and local chiefs and community leaders have become engaged.

All of these strategies have been met with success showing significant increases in both the proportion of households with latrines and access to potable water.

WASH AND NTDS FROM THE WHO WASH PERSPECTIVE

Dr Bruce Gordon, WHO

WHO is strongly committed to WASH and NTDs. A number of points were highlighted: (i) WASH is a broad public health intervention with many disease-related and non-disease-related outcomes; (ii) WASH is often implemented outside the health sector, and actors may have little knowledge of NTDs; (iii) WASH is not competing with NTDs for funding; (iv) infrastructure is a small part of WASH; (v) equity and reaching the most vulnerable is critical; and (vi) WASH has the necessary capacity to tackle F&E. The objectives of WASH and NTDs differ but their shared goals include equity, poverty reduction, shared prosperity and sustainability.

To achieve these goals, an NTD and WASH strategy will be essential; one whose aim is mutual reference and embedding of WASH and NTD aspects in sector plans and programmes, with full integration of programmes where appropriate. The vision is accelerated and sustained achievement of the targets of WHO's roadmap on NTDs, particularly among the poorest and most vulnerable populations, through better-targeted WASH and NTDs efforts. To assure success, the strategic objectives are: (i) to improve awareness of the benefits of joint action by sharing experience; (ii) to enhance joint monitoring to highlight inequalities and target investment; (iii) to increase the evidence base on how to deliver effective WASH for NTD control; and (iv) to plan, deliver and evaluate WASH and NTDs programmes.

The following actions should be prioritized: (i) co-mapping WASH and trachoma (link to Sustainable Development Goals on equity, sanitation and hygiene); (ii) engaging in WASH sector planning (national Joint Sector Reviews, UNICEF Bottleneck Analysis Tools); (iii) networking with WASH stakeholders and actors; (iv) engaging with WASH in schools; and (v) providing support for regional/national WASH/NTD action plans.

WHO is committed to opening doors and influencing WASH stakeholders on behalf of the trachoma community.

LEADERSHIP AND CHANGE MANAGEMENT IN F AND E

Dr Amir Bedri, Light for the World, Ethiopia

Significant programmatic scale up is required to eliminate trachoma by 2020. To do so, greater leadership at country level will be needed. Many health ministries are under-resourced, but delegation of management tasks to others is necessary to allow time for national coordinators to provide actual leadership. A recent course in leadership conducted

by the Kilimanjaro Center for Community Ophthalmology has been addressing this challenge by providing national coordinators with the skills necessary to assume more leadership even within the constraints of the health ministry environment. One of these critical skills is in change management, as any disruption of the status quo in an organization must be managed to ensure that work continues and that the changes result in better overall organizational performance.

This is particularly true for the F and E components of SAFE, as they necessitate working with sectors and individuals outside of the health ministry. Getting different stakeholders aligned and building and maintaining partnerships are critical, and require strong leadership and change management skills.

BREAKOUT SESSION C1. NETWORK OF WHO COLLABORATING CENTRES FOR TRACHOMA

Rapporteur: Dr Anthony Solomon

WHO often requires expert advice as well as scientific and technical cooperation. WHO Collaborating Centres are institutions that have been solid allies for years in helping WHO to implement its mandated work and that are prepared to continue contributing towards the achievement of WHO's goals. [1] Through collaboration, WHO gains access to leading institutions worldwide and the institutional capacity to support its efforts. Designation as a WHO Collaborating Centre provides institutions with enhanced visibility and recognition by national authorities, calling public attention to the health issues on which they work. It opens up improved opportunities to exchange information and develop technical cooperation with other institutions, particularly at the international level, and to mobilize additional resources from funding partners. In this way, the designation is a win–win–win relationship between WHO, its Collaborating Centres, and the countries and communities that they support.

In order to be eligible for designation as a WHO Collaborating Centre, proposed institutions must demonstrate at least two years of successful previous collaboration with WHO in carrying out jointly planned activities. In all cases, it is WHO that initiates the proposal for a designation.

In order to expand WHO's capacity to help countries eliminate trachoma as a public health problem, in February 2015, the WHO Department of Control of Neglected Tropical Diseases convened a number of academic institutions at the Task Force for Global Health (Decatur, GA, USA). An analysis was undertaken of current needs in terms of research, training, and management of information and materials. The group resolved to work together to designate a number of institutions as WHO Collaborating Centres for Trachoma, and to form a Network. That Network, and its meetings, will not be exclusive to institutions designated as WHO Collaborating Centres, but be open to other interested stakeholders.

[1] Guide for WHO collaborating centres. Geneva: World Health Organization; 2016 (WHO/SPI/WHOCC/2016.1).

BREAKOUT SESSION C2. WHAT DOES THE WASH COMMUNITY NEED FROM TRACHOMA?

Rapporteur: Ms Maddy Gupta-Wright

The group began by discussing what the trachoma community can offer WASH when it reaches out for collaboration. The offer of robust sub-national-level data generated within the GTMP would be a great incentive for the WASH sector to collaborate. WHO experts in WASH highlighted some potential common concerns between those working in WASH and trachoma. These were equity; the needs of the most vulnerable in society; poverty reduction; and human rights to the basic services represented by WASH and health care.

It was noted that the language used in the WASH and NTD sectors differs. For example, in discussing health care facilities, the WASH sector talks about "WASH" and the health sector about "infection control" or "safety". We need to be aware of such differences in terminology when working together. Other challenges, in the area of hygiene promotion and behavioural change, include that each sector may have different requirements for the evidence base to guide such approaches; and that relationship-building across sectors requires proactivity and humility, recognizing each other's strengths and limitations.

Some of the strengths of working together with WASH include: complementary expertise and knowledge; existing funding streams that may be available; greater value for money; sustainability; fostering economic development; increased access to different institutions (private sector and industry) and groups of people within countries; assistance with targeting health/WASH messages; more powerful advocacy; and access to different national forums for awareness-raising.

BREAKOUT SESSION C3. FEEDBACK ON THE NEW TRACHOMA ELIMINATION MONITORING FORM

Rapporteur: Ms Yael Velleman

Guidance must be clearer on how the F and E implementation sections of the new Trachoma Elimination Monitoring Form should be completed. For each of the components, providing data at district level would strengthen their usefulness for programmes and partners, although it was recognized that this may not always be possible. WHO regional advisers are available to provide feedback on completed forms before they are submitted for global compilation.

BREAKOUT SESSION C4. WHAT DATA SYSTEMS DO WE NEED FOR GET2020?

Rapporteur: Mr Alex Pavluck

The group looked at two major points: the ability to make data accessible and the concerns surrounding the quality of the data. In making data accessible, the group recommended a system that forges a closer collaboration with the WASH sector and shares information on common indicators – useful not only for programme planning but also as an advocacy tool for demonstrating collaboration to donors. Another important need is to provide a link between those who collect data and those who take action on the data. In addition the group would like to see a feedback mechanism for reporting back from WHO. Also valuable would be reports showing progress and statistics on correlation between the different indicators. To enhance all of this there is a demand for the ability to visualize the data with maps and charts. As such, trachoma atlas maps are more valuable

than tables of prevalence data. Rather than share the data of individual countries, regional data would also be welcome. The group also suggested looking at a mechanism for follow-up (especially with TT cases) to translate TT prevalence into absolutes numbers of people with TT. Finally, a mechanism is needed to allow partners of programmes access to data when permission is granted by the country.

Concerning the quality of data, there is a need to ensure their quality and precision while keeping in mind that just because the data are electronic does not mean that they are reliable. Robust quality assurance and quality control are essential. To help with this a best practice plan for data collection, storage, reporting should be developed. Data collection should be considered a health operation as it is the basis of medical decisions and so data collectors should be highly trained. To augment the country's capacity to use data effectively, training is needed for data management services providing an archive for security multiple backups within countries to allow them to always access their information. Systems must be flexible and customized to the needs of individual countries.

In conclusion, the group recommended that a system for data collection (impact surveys, pre-validation surveillance surveys) be developed along the lines of the GTMP.

SESSION 6

BREAKOUT SESSION D1. PLAN OF ACTION, COUNTRY REPRESENTATIVES AND WHO

Rapporteur: Dr Jaouad Hammou

The group noted the considerable progress that has been made in global implementation of the SAFE strategy. That progress is also a reminder of the need to scale up mapping where it has not yet been completed, so that countries can scale up implementation in all endemic areas to reach the GET2020 goal. In order to reach the elimination goal, health ministries of all countries of the Alliance should appoint a dedicated trachoma focal point to lead national efforts. Such a person could target increased involvement with the WASH sector to benefit the F and E components of SAFE. Organizing meetings that include WASH and participating in local and regional meetings will help further progress in implementation. In those countries where such groups or committees do not exist, countries should reach out to the WHO Country Office. For such trachoma managers, there needs to be capacity building including training in leadership and the use of the new HEAD START surgical training tool.

The group made recommendations to WHO about how it could assist, such as asking decision-makers to increase their commitment to trachoma elimination by making it a priority health issue; and promoting and strengthening collaboration among all endemic countries to share experiences, address cross-border issues and to learn from each other. Finally, WHO must define and assist with the process of validation of elimination.

Estimates of TT prevalence should be included as an integral part of all trachoma prevalence surveys to maximize understanding of the burden of disease and assist with planning of strategies to reduce the backlog of TT cases.

BREAKOUT SESSION D2. PLAN OF ACTION, NONGOVERNMENTAL ORGANIZATIONS

Rapporteur: Ms Lisa Rotondo

Both additional funds and new sources of funding are required. This may need to be coordinated with other sectors of the Alliance, with mobilization of new funding being facilitated by existing donors. The call for

additional funds will need to be strengthened through external communications that include an analysis of costs and gaps, stress the quality and productivity of programmes, demonstrate evidence of cost–effectiveness, and provide examples of the excellent use and stewardship of current donor funding.

On the programmatic side, continued mapping, high-quality surgery and mobilizing WASH stakeholders are critical elements. This will require an increased focus on capacity-building and training, identifying what is needed, where and for whom. Leadership development was discussed as well as the potential use of Mass Open Online Courses as delivery platforms. It was recognized that multilingual resources are needed and that the community must continue to document and disseminate preferred practices. Closely allied with training and capacity building are knowledge and learning and the importance of sharing information, outcomes, evaluation results, and assisting with the translation of knowledge for programme adaptation and advocacy.

BREAKOUT SESSION D3. PLAN OF ACTION, DONORS

Rapporteur: Dr Andrew Cooper

The donor group focused primarily on how it could add value beyond just the azithromycin donation and financial support they provide to the elimination effort. The broad categories identified were convening, transparency, advocacy and supporting the rest of the Alliance. One role donors could play is in convening other sectors such as education and WASH and leveraging their influence and contacts to meet with key people at global and national levels. The discussion of evaluation and learning touched on how accountability frameworks could be improved through better measurement and indicators while recognizing the need for flexibility. Donors could also be a source of information to promote learning and adapt knowledge to specific local contexts. To accomplish this, data sharing and transparency will be needed, incorporating such aspects as cost–effectiveness and unit cost analyses of the different components of SAFE.

Members of the donor community could collaborate also with each other, for example on reporting and joint evaluation, towards achieving a consensus on what is being measured. The key point of this discussion was to lead by example in collaboration.

The group discussed surveillance and validation and the need to support WHO and ICTC to ensure clarity on what is needed and to identify end-points. Scale down is crucial, as is finishing the job and demonstrating impact. A simpler score card to track progress made would be helpful. It would also illustrate what has worked, what we have learnt through partnerships among donors and inform the community about which other donors should be approached. Finally, credit needs to be given to country leadership: successes should be celebrated.

Future Alliance meetings should be held in countries with wealthy donors. Another consideration is to start planning for what happens with the name "GET2020" as 2020 gets closer.

With regards to funds that donors make available, donor representatives spoke of the need to discuss with governments of endemic countries the role of trachoma programming in health system strengthening and the need to mobilize more resources for elimination efforts.

Finally, more work with ICTC is needed to help set a target for how much it is going to cost to finish the job and assist with developing an ICTC fund-raising strategy. The donors could support a workshop for this, to tailor specific messages for specific donors. These

messages could include: no more MDA, poverty reduction, value for money, eye health, etc. This would be strengthened by the development of case studies that would complement a simplified score card.

BREAKOUT SESSION D4. PLAN OF ACTION, ACADEMIC AND TRAINING INSTITUTIONS

Rapporteur: Professor Paul Courtright

The group discussed two main topics: research activities, and training and capacity building activities.

The Trachoma Information Service was created to gather and disseminate new developments about trachoma. It was delivered by the Kilimanjaro Centre for Community Ophthalmology, but has gone into abeyance. The opinion of the group was that the service was valuable; the Kilimanjaro Centre for Community Ophthalmology agreed to restart it. With regards to operational research, the group recommended that national programme personnel be contacted to elicit their input on operational research questions they think should be addressed in their countries. It was further recommended that all operational research projects should include, from the time of the development of the research project, a plan for knowledge translation. This will help to ensure that findings are applied. As a recommendation for Alliance meetings, the group requested that presenters at the Trachoma Scientific Informal Workshop identify one or two key messages from their work for possible relay to the broader Alliance.

Assessments of training and capacity building should be undertaken in all trachoma-endemic countries to determine capacity-building needs. Such country level assessments or requests for information from the national programmes regarding their needs might be more effectively accomplished if they came from WHO. Wherever and whenever possible, capacity should be built through collaboration between endemic countries. National level adaptation and adoption of preferred practice manuals is strongly recommended. The group discussed the usefulness of compiling all training and educational materials for trachoma in a way that those interested could easily access them. The final recommendation concerning training and capacity building was that the WHO Programme Managers Guide should be revised and its application tested using the Massive Open Online Course format.

The group endorsed the vision, aim and objectives of the Network of WHO Collaborating Centres for Trachoma[1].

[1] Network of WHO Collaborating Centres for Trachoma: inception meeting report. Decatur, GA, USA, 19–20 February 2015. Geneva: World Health Organization; 2015 (WHO/HTM/NTD/2016.3).

Annexes

ANNEX1: AGENDA

Monday, 27 April 2015

Session 1

Time	Topic	Speakers (bold type) / Facilitators
08:00 –08:30	Registration	
08:30 –09:15	Welcome	Anthony Solomon (WHO)
	Nomination of officers	Anthony Solomon (WHO)
	Purpose, outcome and outputs of meeting	Chair
	Adoption of agenda	Chair
	Administrative matters	Anthony Solomon (WHO)
	Self-introduction	All
09:15 –10:00	World Health Organization report	Anthony Solomon (WHO)
10:00 –10:30	Global Trachoma Mapping Project update	Tom Millar (Sightsavers)
11:00 –12:15	Regional reports	Oumer Shafi (Ethiopia)
		Simona Minchiotti (AFRO)
		Ismatulla Chaudhry (EMRO)
		Martha Saboya (PAHO)
		TBC (SEARO)
		Andreas Mueller (WPRO)

Session 2

Time	Topic	Speakers (bold type) / Facilitators
14:00 – 15:30	Issues for the "S" component	
	1) Operationalizing the definition of trichiasis "unknown to the health system" at country level	Sailesh Mishra (Nepal)
	2) Implementing the new trachoma surveillance standard operating procedures	Abdellahi Mennih (Mauritania)
	3) The importance of supportive supervision in trichiasis surgery	Lamine Traoré (Mali)
	4) Integrated morbidity management: planning for "TT-plus"	Dézoumbé Djore (Chad)
	5) The Vicryl suture donation programme	Emily Gower/Danny Haddad (WF/ Emory)
	6) Re-calibrating the global trichiasis backlog	Rebecca Flueckiger (LSHTM)
	7) Thinking big	Oumer Shafi (Ethiopia)
	Discussion	All
15:30 – 15:45	Coffee break	
15:45 – 17:00	Breakout A	
	1) What was wrong with the GTMP? What should we do better for impact assessments?	Berhan Guadie (Amhara RHB)
	2) The new trachoma surveillance standard operating procedures: is there any way that they can work?	Khumbo Kalua (Malawi)
	3) Validation of elimination of trachoma as a public health problem	Oliver Sokana (Solomon Islands)
	4) Update on the HEAD START project	Onyebuchi Uwaez (Nigeria)
17:00 – 18:00	Report back from breakout groups	Breakout group representatives
	Discussion	All

Tuesday, 28 April 2015

Session 3

Time	Topic	Speakers (bold type) / Facilitators
08:30 – 10:30	Issues for the "A" component	
	1) Co-administration of azithromycin and albendazole	Julián Trujillo Trujillo (Colombia)
	2) Integration of treatment campaigns for multiple NTDs in Brazil	Rosa Castália (Brazil)
	3) Does "TF" always need to be treated?	Luisa Cikamatana Rauto (Fiji)
	4) Mass drug administration in the newest country in the world	Wani Mena (South Sudan)
	5) The contribution of antibiotics to trachoma's elimination as a public health problem in Morocco	Jaouad Hammou (Morocco)
	6) International Trachoma Initiative report	Paul Emerson (ITI)
	Discussion	All
11:00–11:45	International Coalition for Trachoma Control report	Martin Kollmann (ICTC/CBM)
11:45–12:15	Donor panel	Iain Jones

Session 4

Time	Topic	Speakers (bold type) / Facilitators
14:00–15:30	Breakout B	
	1) What more can I do for my donors?	Agatha Aboe & Iain Jones
	2) Is there any sense in trying to integrate with other NTD or prevention of blindness programmes?	Tawfik Al-Khatib & Martha Saboya
	3) How can we maximize antibiotic coverage? Should we be trying to be creative?	Khumbo Kalua & Simona Minchiotti
	4) Can we trust ITI and WHO with our data? What is this ridiculous new combined data reporting and azithromycin request form?	Nicholas Olobio & Serge Resnikoff
16:00 – 17:00	Report back from breakout groups	Breakout group representatives
	Discussion	All
17:00–18:00	Trachoma Scientific Informal Workshop report	Sheila West (Johns Hopkins University)

Wednesday 29 April 2015

Session 5

Time	Topic	Speakers (bold type) / Facilitators
08:30 – 10:30	Issues for the 'F' and 'E' components	
	1) An integrated hand and facial cleanliness campaign in Turkana Region	Michael Gichangi (Kenya)
	2) Enlisting help (and data) from other sectors for trachoma elimination	Patrick Turyaguma (Uganda)
	3) The F&E contribution to trachoma elimination in Mexico	Nadia Angélica Fernandez Santos (Mexico)
	4) The F&E contribution to trachoma elimination in Ghana	Oscar Debrah (Ghana)
	5) WASH and NTDs from the WHO WASH perspective	Bruce Gordon (WHO)
	6) Leadership and change management in F&E	Amir Bedri (LFTW)
	Discussion	All
11:00–12:15	Breakout C	Martin Kollmann (ICTC/CBM)
	1) Network of WHO Collaborating Centres for Trachoma: what's that all about?	Anthony Solomon & Martha Saboya
	2) What do the WASH community need from trachoma?	Bruce Gordon & Danny Haddad
	3) Are the indicators requested in this year's TEMF form useful or useless?	Yael Velleman & Jean Ndjemba
	4) What data systems do we need for GET2020?	Alex Pavluck & Georges Yaya

Session 6

Time	Topic	Speakers (bold type) / Facilitators
14:00 – 15:00	Report back from breakout groups	Breakout group representatives
	Discussion	All
15:00–15:30	Breakout D: Plans of action	Breakout group representatives
	1) Country representatives and WHO regions	Asad Khan & Lucienne Bella
	2) NGOs	Emily Toubali & Lisa Rotondo
	3) Donors	Iain Jones & Andrew Cooper
	4) Academic and training institutions	Paul Courtright & Hugh Taylor
16:00–16:30	Breakout D: Plans of Action, continued	
16:30–17:30	Report back from breakout groups	Breakout group representatives
	Discussion	All
17:30–18:00	Meeting feedback and meeting close	Chair

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