
REPORT OF THE 20TH MEETING
OF THE WHO ALLIANCE FOR
THE GLOBAL ELIMINATION OF

TRACHOMA BY 2020

SYDNEY, AUSTRALIA, 26–28 APRIL 2016



World Health
Organization



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Acknowledgements

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The Alliance thanks Emily Gower and Sharone Backers for their work as meeting rapporteurs; Divya Jha for drafting this report; and Karen Ciceri-Reynolds, Andreas Müller, Anthony W. Solomon and Patrick Tissot for editing and design.

Abbreviations and acronyms

GET2020	Global Elimination of Trachoma by 2020
MDA	mass drug administration
NTD	neglected tropical disease
SAFE	Surgery, Antibiotics, Facial cleanliness, Environmental improvement
TF	trachomatous inflammation – follicular
TT	trachomatous trichiasis
TS	trachomatous
WASH	water, sanitation and hygiene
WHO	World Health Organization

Introduction and opening ceremony

The 20th meeting of the World Health Organization (WHO) Alliance for the Global Elimination of Trachoma by 2020 (GET2020) was held at the Four Seasons Hotel in Sydney, Australia, from 26 to 28 April 2016.

The objective of this annual meeting was to assess progress on the elimination of trachoma, distil learning and establish priorities to guide countries in meeting the trachoma elimination targets.

A “welcome to country” was offered by Uncle Charles (Chicka) Madden, a Gadigal Elder who had lived in and around the Redfern area of Sydney for most of his life, serving the Aboriginal community as Director of the Aboriginal Medical Service, Secretary of the Metropolitan Local Aboriginal Land Council and Director of Aboriginal Hostels New South Wales.

Participants were further welcomed by a live performance from Descendance, an Australian Aboriginal dance company that won first prize in the dance category at the first-ever international cultural Olympics.

The meeting was conducted in six sessions over 3 days. Dr Anthony Solomon, Medical Officer for Trachoma, WHO, proposed the following chairs: Dr Ana Cama and Dr Georges Yaya (day 1); Ms Jaki Adams-Barton and Dr Amir Bedri Kello (day 2); and Dr Jaouad Hammou and Dr Babar Qureshi (day 3). These nominations were approved by the Alliance by acclamation.

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

SESSION 1

Towards GET2020

Keynote speech: a call to arms

Dr Caroline Harper (Sightsavers, UK)

Dr Harper gave a stirring speech to mark the 20th meeting of the Alliance.

Trachoma has a historical and continuing importance as a leading cause of blindness (1), with an inherently unfair impact on the poorest individuals in the poorest communities (2). The relatively recent rise in awareness among some national governments of the disease as a high-priority public health problem could be partly due to increased financial support from several major donors and the related, highly successful, Global Trachoma Mapping Project (3).

Dr Harper commented that the trachoma community had built a culture of support and a unique partnership that was fostering success, which had encouraged donors to become involved in and then to increase their commitment (4).

The Global Trachoma Mapping Project was one of the most outstanding achievements of the trachoma community to date, with more

than 60 partner organizations (5) collaborating at high speed and in a standardized way. While several countries face challenges in mapping the disease, global mapping is almost completed, and, as a result, trachoma has been brought to the attention of health economists.

Expansion of antibiotic mass drug administration (MDA) is another laudable achievement, largely thanks to the support of Pfizer. However, mapping data have revealed the full scale of the problem, and global antibiotic coverage is only 22%. The global trachoma community must therefore continue to expand coverage to reach the elimination target.

A focus on antibiotic MDA should not make us forget the other components of the SAFE strategy. Provision of surgery to individuals with trichiasis is critical. Facial cleanliness, environmental improvement and the associated behavioural changes may be fundamental to trachoma elimination but do not receive enough attention.

Despite successes, there remains a huge funding gap for trachoma. The danger of complacency has arisen because of successes, and donors are already beginning to justify truncations to further support due to perceived momentum. This situation needs to be changed.

To succeed in the long term, the trachoma community must become better at selling its progress and potential, including by emphasizing the cost effectiveness of trachoma elimination. Ensuring that we contribute to the work of the broader neglected tropical

disease (NTD) community, and undertaking deeper engagement with the water, sanitation and hygiene (WASH) sector are needed, too. These things will help us edge ever-closer to achieving the trachoma elimination targets, which are now undoubtedly within reach.



Trachoma in Australia

Ms Paula Wines (Northern Territory Department of Health, Australia) and Professor John Kaldor (Kirby Institute, Australia)

In Australia, the risk of blindness from trachoma is essentially confined to indigenous groups. Remote communities have long been recognized to be the most affected (6). Of a national population of 24 million people, < 1% live in remote communities. Although most Aboriginal Australians do not live in remote communities, those who do are at highest risk of disease.

The three jurisdictions of Australia in which the greatest numbers of people at risk of trachomatous blindness live are the Northern Territory, South Australia and Western Australia (Fig. 1). All affected populations are thinly spread over vast areas.

The national trachoma programme in Australia was initiated in the 2000s, with funding from the federal government. Despite the central funding source and national guidelines produced in 2006 and 2014, states and territories vary in their approaches to implementation. Monitoring and evaluation are centralized. Management approaches, though based on the SAFE strategy, diverge from standard WHO recommendations (7), being targeted at the level of the community rather than at districts of 100 000–250 000 people. The main focus is on school-aged children. In communities in which the trachomatous inflammation—follicular (TF) prevalence in 5–9-year-olds is $\geq 20\%$, antibiotic treatment is given every 6 months. Programmes to promote facial cleanliness are in place. A strong link to primary care is crucial, including surveillance as part of routine delivery.

Prevalence rates are decreasing overall (Fig. 2). Multiple partners contribute to the programme. Community-level partners are critical to success.

The programme faces a number of challenges. Most communities are very mobile, including between states and territories, which makes implementation more difficult. Other barriers include language and health literacy, distance and access, inadequate housing and overcrowding. Another area of concern is the absence of systematic screening of children aged < 5 years, though children in this age group are offered antibiotics for trachoma elimination. Also, information on the prevalence of trachomatous trichiasis (TT) is limited.

The federal government and state and territory governments are, however, committed to eliminating trachoma. These commitments were achieved partly by aligning the trachoma elimination agenda with initiatives to improve health more broadly in trachoma-affected communities. The national goal is a zero prevalence of trachoma. The programme is doing everything it can to try to realize this goal.

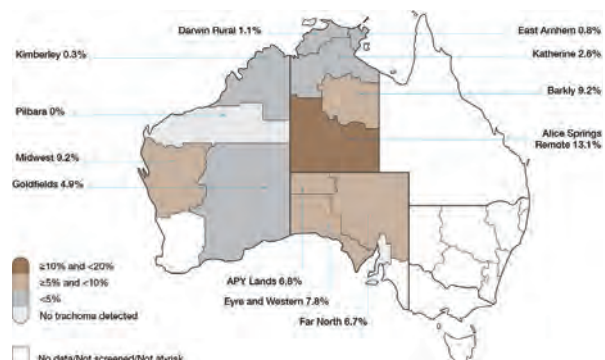


Fig. 1 Trachoma prevalence among 5–9-year-olds in at-risk communities, Australia, 2015

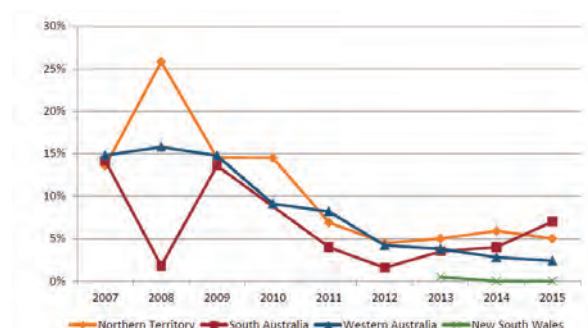


Fig. 2 Prevalence of trachomatous inflammation—follicular in 5–9-year-olds in at-risk communities, Australia, 2007–2015

The contributions of GET2020 to the Sustainable Development Goals

Dr Anthony Solomon (WHO/NTD Geneva)

Work to eliminate trachoma as a public health problem also contributes significantly to the Sustainable Development Goals. Goal 3 (Good Health and Well-Being for People) addresses NTDs in target 3.3, which calls for the end of the epidemics of NTDs and other communicable diseases. The NTD component of target 3.3 is measured by indicator 3.3.5: the number of people requiring interventions against NTDs. In 2014, 1.7 billion people across 185 countries required mass treatment for five NTDs, including trachoma. Some of these people required treatment for multiple NTDs.

More generally, target 3.8 addresses universal health coverage, including protection against financial risk, access to high-quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. Both TT surgery and antibiotic MDA contribute to this target.

The population requiring these interventions is disproportionately concentrated in low-income countries. Australia is the exception to this. The 54 311 individuals requiring the A, F and E interventions for trachoma elimination in Australia represent more than half the total interventions needed against NTDs in all high-income countries combined.

Target 3.8 envisions universal health coverage, including protection against financial risk, access to high-quality essential health-care services, and access to safe, effective, quality-assured and affordable essential medicines and vaccines for all. The corresponding indicator is the coverage of essential health services, based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases, and service capacity and access. To

meet target 3.8 from a trachoma elimination perspective, surgery for TT and MDA with azithromycin must remain available to people who require them.

Elimination of trachoma is also directly related to Goal 6 (Clean Water and Sanitation). Target 6.1 is to achieve universal and equitable access to safe and affordable drinking-water by 2030, while target 6.2 is to achieve access to adequate and equitable sanitation for all and end open defecation, with special attention to the needs of women and girls. The indicators for these targets are the percentages of the population using safely managed drinking-water services, and using safely managed sanitation services, respectively.

Eliminating trachoma also contributes to Goal 1 (No Poverty); Goal 2 (Zero Hunger); Goal 4 (Quality Education); Goal 5 (Gender Equality); Goal 8 (Decent Work and Economic Growth); and Goal 10 (Reducing Inequalities) (8). Blindness from trachoma reduces the ability of adults to farm, impoverishing their families and forcing younger family members to forgo schooling to take care of them. Women have an up to four times greater risk of trachomatous blindness than men (9, 10).

In addition, the collaborations necessary to achieve sustained trachoma elimination contribute to Goal 17 (Partnerships for the Goals) (8).

As a community, we need to continue to advocate our work as the vanguard of the drive towards the Sustainable Development Goals, and has been since the SAFE strategy was adopted in 1993 (11).

The economic case for GET2020

Mr Christopher Fitzpatrick (Health Economist, WHO/NTD Geneva)

Global elimination of trachoma as a public health problem plays a major role in the

attainment of the Sustainable Development Goals. The WHO Alliance for GET2020 goes about its work in an affordable, pro-poor and pro-income way. GET2020 stakeholders are providers of antibiotic MDA with high levels of coverage. This can be used as a tracer for equity in progress towards universal health coverage. Ethiopia, for example, aims to progressively realize universal health coverage in its health sector plan, which has been greatly influenced by domestic interventions for trachoma.

GET2020 is affordable. It is estimated that US \$1 billion will be needed to eliminate trachoma as a public health problem globally, of which 60% is needed for delivery of the S and A components of SAFE. This is < 0.003% of the global expenditure on health to alleviate 0.01% of the global burden of disease. Trachoma elimination programmes leverage hundreds of millions of dollars' worth of pharmaceutical donations and investments in water, sanitation and hygiene. The net return on investment is estimated to be > US\$ 6 per dollar invested, generating an annualized compounded rate of return of > 13%.

Elimination of trachoma greatly influences indices of well-being. Research shows that patients with TT in Ethiopia are more likely to belong to poorer households and also to have a lower overall quality of life than controls (2). TT surgery significantly improves quality of life (12). Elimination of trachoma would restore 4 million years of healthy life (13), at a cost of US\$ 22–83 per disability-adjusted life year averted (14). Without the restoration of these disability-adjusted life years, people with trichiasis are less likely to participate in social activities or work for income. The global lost productivity from trachoma is estimated at US\$ 4–5 billion (15). These are losses that can be averted, making the GET2020 targets decidedly pro-income.

Investment in interventions against NTDs is a fair and efficient investment in social justice, in that the benefit to affected individuals – the

poorest and most marginalized (16) – greatly exceeds the cost to funders of providing it. This benefit is in terms of out-of-pocket health expenditure and productivity losses averted. It thereby supports two additional targets of the Sustainable Development Goals: universal health coverage and social protection. Universal health coverage means, among other things, protection against financial risk from out-of-pocket health expenditure. Social protection includes benefits for people of working age in case of disability. As countries struggle with how to finance universal health coverage and social protection, prioritizing interventions to end NTDs can guide countries' first decisive steps on the long path towards those goals.

Endemic country commitment to GET2020: Mali

Professor Lamine Traore (Ophtalmologiste, Institut d'Ophtalmologie Tropicale de l'Afrique, Mali)

Mali has made impressive progress in reducing TF prevalence. In 1997, the TF prevalence in 0–9-year-olds was > 30% in each of the seven regions, except for Ségou where it was 23.1%. The regional level prevalence of TT in women aged ≥ 15 years ranged from 0.7% to 3.9%, being lowest in the east (17). By 2015, most regions had registered major falls in TF prevalence; in only two regions were TF prevalences 10–29.9% (Fig. 3). The prevalence of TT fell similarly (Fig. 4).

The establishment in 1994 and subsequent work of the National Eye Health Program undoubtedly hastened progress against trachoma in this 18-year interval. The programme implemented the SAFE strategy from 2001 and has, since its inception, administered 30 540 510 doses of antibiotics and constructed 137 096 latrines.

The main issue facing Mali today is the backlog of TT surgeries. More than 83 000 surgeries

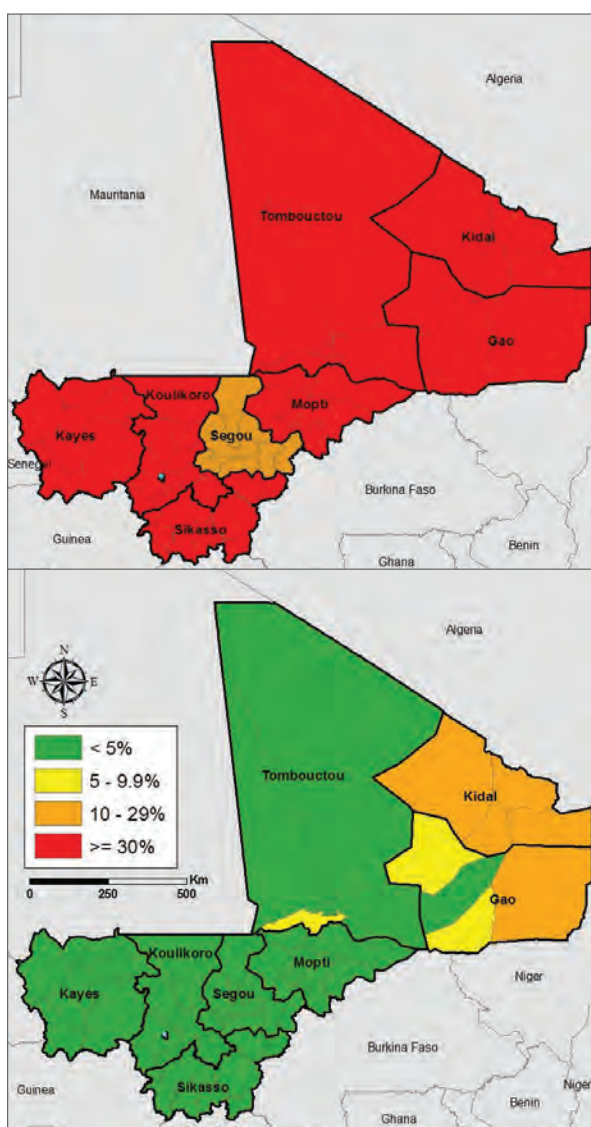


Fig. 3 Prevalence of trachomatous inflammation—follicular in 1–9-year-olds, Mali, 1997 (a) and 2015 (b)

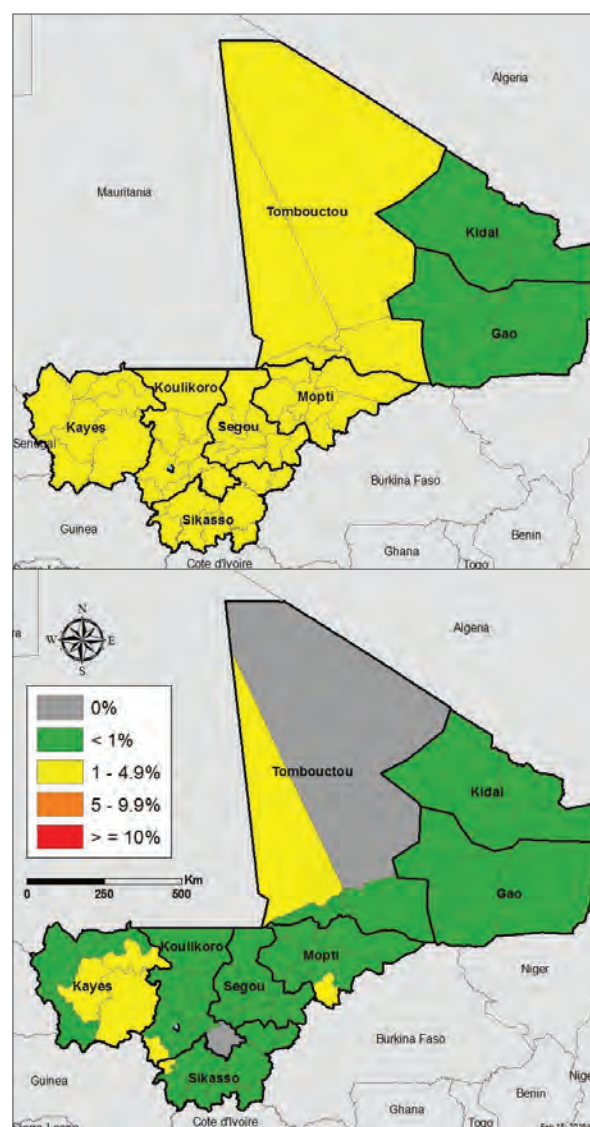


Fig. 4 Prevalence of trachomatous trichiasis in women aged ≥ 15 years, 1997 (a), and women and men aged ≥ 15 years, 2015 (b)

have been performed to date, but there remains an estimated backlog of 14 222 people requiring management of TT. VISION2020 is working with the Government of Mali to reduce this backlog through outreach services and delivery of equipment to health centres.

The Government of Mali is fully committed to eliminating trachoma as a public health problem, and thanks its many partners for their unwavering support.

Endemic country commitment to GET2020: Vanuatu

Ms Fasihah Taleo (Ministry of Health, Port Vila)

Vanuatu's 270 000 residents are scattered over 83 islands, which are divided into six provinces. About 80% of people live remotely, with limited access to clean water. Inter-island travel is often difficult.

The country has one ophthalmologist and nine eye nurses, of whom five are Global Trachoma Mapping Project-certified graders. Baseline mapping was completed in 2013 (18). Having more trained graders is a programme priority. Trachoma data are not yet included in the national health management information system database.

The target for national coverage of antibiotic MDA is 95%. One round of MDA has been undertaken to date.

Vanuatu is fully committed to realizing the GET2020 goal.

GET2020 and the private sector

Mr Darren Back (Pfizer)

The Zithromax donation programme is extremely important to Pfizer. It helps the company achieve its mission of getting essential medications to those who need them most. It is also the company's biggest donation programme. Collaboration within the WHO Alliance is a leading example of what can be achieved when the public and private sectors work together. Pfizer is very proud of its contributions to the trachoma programme. There is a strong commitment to the GET2020 goal from the company and its staff.

Bilateral support to GET2020

Ms Angela Weaver (United States Agency for International Development) and Mr Iain Jones (United Kingdom Department for International Development)

The governments of the US and UK have supported trachoma elimination programmes in 17 countries and 15 countries, respectively, at an estimated monetary value of US\$ 160 million (USA) and US\$ 70 million (UK). The foundation of this substantial commitment is the effective partnership of the people and organizations within the WHO Alliance, and

an approved, implementable and effective strategy. The impact of the global trachoma programme against disease and its pro-poor approach are both recognized.

Both governments anticipate continuing their support in response to the success of the Global Trachoma Mapping Project and the growing number of districts achieving the targets for elimination. There is still a lot of work to do, and a need to remain focused on the overall goal while acknowledging the many competing priorities.

The general discussion recognized that, although we have two committed bilateral donors, US and UK resources of support are limited and more donors are required to provide substantial support to the programme globally.

Participants raised the issue of the leverage that major donors provide to countries in their efforts to close financial gaps. For instance, the United Republic of Tanzania has high levels of domestic financial and political commitment for trachoma elimination, largely as a result of bilateral support and WHO-led initiatives for integration.

International Coalition for Trachoma Control contributions to GET2020

Ms Virginia Sarah (The Fred Hollows Foundation, UK)

In 2016, there is greater knowledge, political will, leadership and coordinated vision for the elimination of trachoma than ever before. Significant strides have been made and partnerships have been solidified, but there remains a need to maintain focus and passion to ensure expansion.

Trachoma is a public health problem in 42 countries, 30 of which are implementing the SAFE strategy. Some 200 million people are at

risk of trachomatous blindness, and the risk is up to four times higher for women than men. Africa bears most of the trachoma burden. Half of the high-risk population is found in three countries: Ethiopia, Nigeria and Malawi (19).

Elimination of trachoma is clearly linked with multiple Sustainable Development Goals, through its effects on poverty, hunger, health, gender, water and sanitation, economic growth, inequality and partnerships. In districts in which the prevalence of active trachoma is high, there is more poverty, hunger, school absenteeism and vulnerability to the environment. Eliminating trachoma by 2020 will facilitate progress on many fronts.

To determine likely future financial needs for implementation of interventions, the International Coalition for Trachoma Control commissioned PricewaterhouseCoopers to create a cost calculator. After data on real expenditure were extrapolated from more than 2200 districts in 43 countries, the cost calculator revealed an estimated price-tag for global elimination of trachoma using the SAFE strategy of US\$ 1 billion.

Recently, GET2020 has attracted around US\$ 200 million for expansion of SAFE

interventions. Further funding is being discussed. Approximately US\$ 700–800 million is therefore still needed to eliminate trachoma worldwide (19).

Delay in acquiring these funds would be costly: at the level of individual health, for national productivity and for the GET2020 goal. To advance the agenda, conversations with finance ministers are urgent. For countries in which elimination targets have already been achieved, dossiers must be completed and submitted to WHO as soon as possible: successful validation refines the current picture of where trachoma elimination is still needed, and provides more and more evidence that elimination is technically feasible. Delayed action could jeopardize our collective goal and adversely affect other efforts against all NTDs.

Ms Sarah then formally presented the white paper on Eliminating trachoma: accelerating towards 2020 (19), a draft of which had been circulated to the Alliance before the meeting. Further feedback was invited. She noted that the “Plans of Action” section of the document would be completed using the input of participants in the current meeting. The Alliance approved the existing content of the document by acclamation.

SESSION 2

Water, Sanitation and Hygiene for GET2020

How much does it cost to implement WASH for 250 000 people? Can the trachoma programme do it alone?

Dr Balgesa Elshafie (Federal Ministry of Health, Sudan)

Approximately 9% of Sudan's 3.6 million people live in localities in which the TF prevalence is at least 5% and are therefore at risk of developing trachomatous blindness. Most of the at-risk population lives in the Darfur states (20).

Much of the population in Sudan has insecure access to water, an absolute lack of potable water and poor sanitation. Varying by locality, respondents at 29–90% of households in Darfur states report that water can be collected within ≤ 30 min return journey from their residences. Outside Darfur, the range is 7–100%.

There remains a dire need to construct latrines and ensure better access to clean water in trachoma-endemic areas. The Sudan Trachoma Control Programme has approached many donors to finance latrine construction without success; however, UNICEF has supported the

construction of latrines and water points in the Darfur states as well as information, education and communication activities in non-Darfur states. The cost of one pit latrine varies between US\$ 200–300 in Sudan. An estimated 166 177 pit latrines are needed in states outside Darfur, whereas states within Darfur require three times as many.

Three solutions have been offered to combat water shortages:

- shallow wells, which can only be dug where water is close to the surface;
- Artesian wells with hand pumps, which can be dug in areas where groundwater is abundant, and cost US\$ 7000–10 000; and
- rainwater storage reservoirs.

WASH Activities in Australia

Professor Hugh Taylor (University of Melbourne, Australia)

In Australia, trachoma is found in remote, predominantly Aboriginal communities. Aboriginal Australian communities in the Northern Territory, South Australia and Western Australia have TF prevalences ranging from 5% to > 20%.

Ethiopia action plan on WASH

Mr Nebiyu Negussu (Federal Ministry of Health, Ethiopia)

Ethiopia has the highest burden of trachoma worldwide (19). In 2016, some 657 of 839 health districts qualified for implementation of the A, F and E interventions to eliminate trachoma as a public health problem.

A survey in 2005–2006 revealed a national-level TF prevalence of 26.2% in children aged 1–9 years, with region-level prevalence estimates ranging from 0.9% in Beneshangul Gumuz to 39.1% in Amhara. The national-level TT prevalence in ≥ 15 -year-olds was 3.1% (21). Six regions in Ethiopia bear a large proportion of the trachoma burden: Amhara, Oromia, Southern Nations, Nationalities and Peoples' Region, Tigray, Somali and Gambella (9, 21–25).

In 2013, Ethiopia launched its One WaSH project, the world's largest sector-wide approach to WASH. One WaSH brings together the ministries of Water Resources, Health, Education, and Finance & Economic Development to manage the WASH sector across 382 districts and 124 small and medium-sized towns in Ethiopia. The programme has four components: (i) rural and pastoral, (ii) urban, (iii) institutional, and (iv) programme management and capacity-building. Rural and pastoral WASH comprises > 60% of total programme costs. About 91% of One WaSH-targeted districts require interventions to eliminate trachoma as a public health problem. However, 46% of districts requiring such interventions are not included in the One WaSH programme.

The overall cost of delivering One WaSH is US\$ 2.41 billion, of which US\$ 0.77 billion is currently unfunded. This funding gap manifests in the slow pace of improvements in household-level access to improved drinking-water and sanitation. According to estimates

of the Federal Ministry of Health, 88% of household sanitation facilities are unimproved, and a further 8% are improved but shared with one or more other households. Some 43% of water sources are unimproved. This situation must change if the health and well-being of the Ethiopian people is to improve. Expansion of One WaSH to all 839 districts, strengthening of coordination at regional level and district-level capacity-building are planned.

Reducing trachoma transmission in a conflict zone

Dr Tawfik Al-Khatib (Ministry of Public Health and Population, Yemen)

In Yemen, the TF prevalence in 1–9-year-olds ranges from 0.1% to 12.6% in 42 evaluation units surveyed to date (26). Although funds for trachoma elimination were available from the World Bank, the outbreak of civil war in March 2015 derailed plans to implement SAFE comprehensively.

Despite the war, workshops on sanitation and hygiene for trachoma elimination have been held. Training on reducing and preventing transmission of *C. trachomatis* has been conducted. Funding from the UK Department for International Development has allowed some training in selection of surgical cases and TT surgery in endemic areas.

WASH in the Western Pacific Region

Dr Rabindra Abeyasinghe (WHO Regional Office for the Western Pacific, Philippines)

International efforts to eliminate trachoma rely on the WHO-endorsed SAFE strategy. Provision of WASH is a critical intervention for the elimination of trachoma and other NTDs. SAFE has been implemented in the Western Pacific Region with the support of communities and primary health-care networks.

Significant progress in trachoma elimination has been made in Viet Nam, where trachoma was known for several decades to be endemic. In North Viet Nam in the 1950s, the TF prevalence exceeded 70% and that of TT exceeded 6%. The Government implemented intensive health care programmes and administered several rounds of antibiotics; by 1986, the TF prevalence was 20% and that of TT was 2%. Trachoma elimination efforts intensified during 1990–1995 and TF prevalence rapidly decreased from 17.5% in 1990 to 7.1% in 1995. In the same period, TT prevalence decreased from 1.8% to 1.2% and that of corneal opacity from 0.8% to 0.2%.

In 2012, it was thought that Viet Nam had reached the elimination goal. Nationwide, the TF prevalence in 1–9-year-olds was < 1%. However, recent surveys indicate that TF is still a problem in small rural pockets of northern Viet Nam, where the prevalence is as high as 17% in children.

The Mekong district has made considerable progress in providing sanitation, based on a programme to distribute cement rings and slabs free of charge to facilitate the construction of pit latrines. Households typically invest between US\$ 100–150 to build super-structures over these pits. Since the National Water Safety Plan was introduced in 2006, “water quality partnerships” have been successful in providing clean drinking-water. Some 20% of people nationally are served by these partnerships at a cost of < US \$0.60 per beneficiary.

To advance progress in trachoma elimination, Viet Nam must coordinate the work of ministries that are responsible for NTDs and WASH. Such continuous engagement is essential to curb transmission of trachoma in the areas of northern Viet Nam in which the disease has been the most difficult to control.

Report on F&E presentations from the Trachoma Scientific Informal Workshop

Ms Virginia Sarah (The Fred Hollows Foundation, UK)

The F&E components require increased focus on research. A general discussion covered the following aspects:

- The need for senior WASH agency staff to attend the next (21st) Alliance meeting in order to increase buy-in from these specialized agencies on F&E implementation.
- The importance of understanding social norms, and to listen, when communicating with communities about trachoma transmission.
- The positive role of school health programmes and the need for close collaboration between education and health departments.
- The advantages of an anthropological approach.

Regional reports

Western Pacific Region

Dr Andreas Müller (Centre for Eye Research Australia)

Data for 2015 show that > 2.6 million people in 125 districts required A, F and E that year: 35% in Papua New Guinea, 35% in Fiji and 20% in the Solomon Islands.

Three countries no longer need A, F and E: Cambodia, China and Lao People’s Democratic Republic. Data are not yet available on Kiribati and Nauru.

Trachoma elimination has garnered much political interest and support in the region. Although accessing and disbursing funds within health ministries has been difficult, the Queen Elizabeth Diamond Jubilee Trust, the UK Department for International Development, the United States Agency for International Development and various nongovernmental organizations (NGOs) have continued to provide funding.

Vertical management of trachoma elimination by the eye care sector is a challenge that can be overcome by integrating funding of trachoma with that for other programmes. Opportunities for such integrated funding of interventions include azithromycin MDA for trachoma and yaws (27). Additionally, WASH requires investment: WASH is as critical as antibiotic MDA to the success of trachoma elimination efforts (28). The deficit of sanitation and hygiene programming in communities is compounded by the costliness of accessing remote communities and the unwillingness of some communities to participate in programmes. Natural disasters and poor weather make such areas even more inaccessible. The WHO Regional Office has an opportunity to advance trachoma elimination by investing funds into WASH interventions, while taking advantage of the attention to this sector driven by climate change considerations.

African Region

Dr Anthony Solomon (WHO/NTD)

Data for 2015 from WHO's African Region show that Ethiopia had the highest number of people for whom A, F and E was warranted in that year. In 256 districts, the most recent TF prevalence estimate exceeded 30%, whereas other countries in the region each had < 15 districts in that category. Ethiopia led the way globally in 2015 in delivering interventions against trachoma, in terms of both the number of TT operations performed and the antibiotic treatments administered: during the calendar

year, approximately 112 000 people were operated on for TT and > 32 million people were treated with antibiotics. Five other countries in the region delivered > 1 million antibiotic treatments in 2015: Guinea, Burkina Faso, Malawi, Mozambique and Senegal.

Of the 26 countries in the African Region, 12 of those submitting data for 2015 were not able to attain $\geq 80\%$ antibiotic coverage in any treated district. Some 22 of the Region's 26 countries conducted at least 100 TT surgeries in 2015: the Central African Republic, Ghana, Mauritania and Togo were the exceptions.

In 2012, the Gambia and Ghana reported to WHO that the prevalence targets for eliminating trachoma as a public health problem had been achieved. In 2015, Ghana did not administer any antibiotic treatments but conducted 51 TT operations. In the Gambia, 429 people in 25 districts were treated with antibiotics, and 307 people were operated on for TT.

Data are unavailable from Algeria.

Data collection and interventions are threatened by poor security in some countries. Limited capacity at country level also jeopardizes further progress but could be partially overcome by continued capacity-building and experience-sharing between nations.

The WHO Regional Office for Africa's Expanded Special Project for the Elimination of NTDs, or ESPEN, launched in May 2016, will provide national NTD programmes with technical and financial support to intensify control of five NTDs amenable to preventive chemotherapy (onchocerciasis, lymphatic filariasis, schistosomiasis, soil-transmitted helminthiasis and trachoma). Coordination of antibiotic MDA for trachoma elimination with preventive chemotherapy for other NTDs, continued data sharing and intra-organizational collaboration should help to consolidate progress towards eliminating trachoma in Africa.

Eastern Mediterranean Region

Dr Ismatullah Chaudhry (WHO Eastern Mediterranean Regional Office, Egypt)

The Eastern Mediterranean Region has several countries in which considerable numbers of people require interventions to eliminate trachoma as a public health problem. Afghanistan, Egypt, Pakistan, Sudan, Somalia and Yemen are all progressing at different rates in terms of mapping and treatment.

In 2015, Egypt completed its first phase of mapping in four marakez and identified areas in which SAFE interventions should be prioritized.

In Pakistan, prevalence surveys have been carried out in 39 of 143 districts. Antibiotic MDA is planned in two districts in 2016.

In Sudan, implementation of the SAFE strategy has progressed considerably since 2003. From 2006 onwards, trachoma prevalence surveys were conducted in 88 evaluation units (EUs) in 12 of the 17 states. Five districts have already undergone impact surveys.

Two phases of baseline mapping have been completed in Yemen. The national trachoma action plan was implemented in 2014 and, in accordance with it, teams of TT surgeons have been trained and started to operate in endemic districts. Yemen has applied for donated azithromycin, but the situation is currently insecure.

Trachoma is not considered to be a public health problem in Bahrain, Djibouti, Jordan, Kuwait, Lebanon, Syrian Arab Republic, Qatar, Tunisia or the United Arab Emirates. This is problematic because evidence to validate this belief is lacking. The possibility that trachoma remains in Djibouti, Lebanon and Tunisia has been discussed periodically. Cases of active trachoma have been reported from several refugee camps in Jordan and the Syrian Arab Republic.

The Ministry of Health of Saudi Arabia is considering whether to undertake prevalence surveys to demonstrate that the targets for elimination of trachoma as a public health problem have been reached.

Region of the Americas

Dr Santiago Nicholls (Pan American Health Organization, United States of America)

Foci of trachoma are known to exist in three countries of the Region of the Americas: Brazil, Colombia and Guatemala. Previously, Mexico was also included on this list, but it has recently requested validation of elimination of trachoma as a public health problem. There are now no districts in Mexico in which the TF prevalence is $\geq 5\%$. Individual treatment of cases and household contacts is ongoing in Mexico. Colombia and Guatemala each have one district in which the TF prevalence in children is known to be 5.0–9.9%. Colombia has four districts with TF prevalence estimates of 10–29.9%; three new endemic districts were identified in 2016.

Brazil bears a large burden of trachoma, with approximately 5 million people at risk of trachomatous blindness and 123 endemic districts. Brazil is the only country in the region to contain districts in which TF prevalence estimates exceed 30%; recent data suggest that five districts have TF prevalences of this magnitude. Some 51 districts in Brazil have TF prevalence estimates of 10–29.9% and 67 districts have TF prevalence estimates of 5–9.9%.

In 2015, some 1478 TT operations were conducted in Brazil, and 238 000 people were treated with antibiotics for trachoma elimination. Much of this treatment was delivered to the indigenous communities in which local investments in WASH have been made. The delivery that year of interventions for trachoma was delayed by the outbreaks of Zika virus and dengue.

Colombia administered antibiotic MDA to 13 000 people in five districts, achieving > 80% coverage. MDA was carried out in schools in conjunction with village health workers promoting facial cleanliness. Various stakeholders have invested in water point construction projects.

Guatemala is in the surveillance phase. Community-led total sanitation drives much of the delivery of F and E.

The region has made major strides with implementing SAFE throughout the major known foci of trachoma. The “trachoma brigades” in Mexico have started transitioning to a “neglected infectious disease brigade” as trachoma recedes. In many countries of the Americas, elimination of trachoma as a public health problem is part of national plans to eliminate neglected infectious diseases. Integrated solutions that encompass work against multiple diseases are being more widely implemented. Brazil has launched a campaign to tackle four neglected infectious diseases. Colombia has begun a similar initiative focused on integration, involving co-administration of azithromycin and albendazole.

There are multiple opportunities to improve existing interventions and implement new integrated mapping plans across multiple diseases of local or regional importance. A new action plan for neglected infectious diseases in the Americas (29) will be implemented during 2016–2022. The plan focuses on inter-country action and includes active case-finding for TT in non-endemic countries. It is not known

whether other countries bordering Brazil’s Amazon area are also endemic for trachoma. Mapping must therefore be expanded to include vulnerable populations, particularly indigenous populations, but the costs are high and the areas in which these populations live are often very difficult to access. Furthermore, it is difficult to train graders in some regions, especially where cases of active trachoma are present but very scattered. For districts in Mexico, post-validation surveillance is lacking. Brazil is reviewing and adjusting epidemiological data: population-based prevalence surveys are under consideration. Guatemala will implement impact surveys in 2016.

A lack of external funding threatens progress towards regional elimination of trachoma as a public health problem.

Partners’ panel

Mr Warren Lancaster (END Fund, The Netherlands)

In order to fill the identified funding gap of around US\$ 700–800 million (19), new donors must be attracted within the 2016–2020 period. The trachoma community should market their successes better than before, including through the use of maps to identify areas in which trachoma used to be a public health problem. Trachoma must also be brought to the attention of donors and the private sector. This is a successful programme, and potential donors, once they know more, will be keen to get involved.

SESSION 3

Status reports and capacity-building

World Health Organization report

Dr Anthony Solomon (WHO/NTD Geneva)

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Dr Solomon reported global highlights since the 19th (2015) meeting of the Alliance, which included:

- completion of the Global Trachoma Mapping Project (30);
- development and field-testing of Tropical Data (31);
- preparation and pilot-testing of a template dossier for validation of elimination of trachoma as a public health problem (32);
- the launch of a global strategy on WASH and NTDs (33);
- the announcement by China that it had achieved elimination prevalence targets; and
- consolidating regional partnerships.

The year 2016 marked the 10th anniversary of involvement by the United States Agency for International Development in programming

for NTDs and the 30th anniversary of the Kongwa Trachoma Project in the United Republic of Tanzania. The Alliance offered warm congratulations and thanks to both organizations for their contributions.

The trachoma elimination monitoring forms for 2015 were distributed to 56 of 58 countries; 52 countries had returned data. The forms allowed information to be supplied to WHO on the delivery of interventions to improve facial cleanliness and environmental improvement, using a visual analogue scale. Based on the data received, however, this approach was not favoured by Member States. Further feedback was invited.

Worldwide, a total of 185 087 people were given TT surgery and 56.1 million people received antibiotics for trachoma elimination in 2015, compared with 138 533 people operated on and 52 million people given antibiotics in 2014.

Of 502 districts in which antibiotic MDA was undertaken, reported coverage was $\geq 80\%$ in 363 (72%).

Significant progress has been made in reducing trachoma prevalence since the previous meeting. Impact surveys conducted in 2015 resulted in 92 districts achieving TF prevalence estimates < 5%, resulting in 16.3 million people being removed from the global total requiring A, F and E.

Dr Solomon noted that the 20th meeting of the Alliance was the 6th Alliance meeting held outside Geneva. He thanked all those who had made it possible, and again welcomed the 141 participants and 43 trachoma-endemic Member States represented in the room. He emphasized the importance of the “Plans of action” breakout session, which would be used to complete the document, *Eliminating trachoma: accelerating towards 2020* (19).

He identified the following priorities for the trachoma programme at WHO during April 2016–April 2017:

- Submit another update on the work of the Alliance to the Weekly Epidemiological Record
- Build capacity at country level
- Continue to lead Tropical Data in its work to support trachoma-endemic Member States
- Maintain support to the trachoma research agenda
- Support the preparation and submission of validation dossiers from several countries
- Prepare the second edition of the programme managers’ manual
- Contribute to fundraising for trachoma elimination programmes
- Harness engagement with the WASH sector
- Continue to align trachoma elimination with work to control, eliminate and eradicate other NTDs

Global Trachoma Mapping Project report

Mr Tom Millar (Sightsavers, United Kingdom)

The Global Trachoma Mapping Project has come to an end. The first district commenced mapping on 17 December 2012. The last district completed fieldwork on 11 January 2016. More than 2500 people across 49 countries were involved in the project. A total of 2.6 million people were examined in 1546 districts by 611 teams. Data generated by the project identified 100 million people requiring treatment with the A, F and E components of the SAFE strategy, and – perhaps just as importantly – 120 million people who did not. Embracing innovation, good supervision, commitment and collaboration were key to the project’s success. Over 60 million items of data were collected using smartphones. These data have been cleaned, analyzed and applied to programmatic use (5).

Partners in the project are ready to use the expertise generated for the next phase of work, which should lead to the global elimination of trachoma.

Introducing: Tropical Data

Dr Anthony Solomon (WHO/NTD Geneva)

Tropical Data (www.tropicaldata.org) is a WHO-led initiative to support countries to collect, analyse and utilize high-quality data on NTDs (31). The design of the platform is similar to that of the Global Trachoma Mapping Project, in terms of both structure and cost effectiveness. It will support national programmes to use trainers, materials and equipment that are already available at global

and national levels to conduct the > 1560 surveys that will be needed during 2015–2020 to conduct impact and surveillance surveys (34) in districts for which an application to the International Trachoma Initiative for donated azithromycin has been made.

Tropical Data will also allow national programmes to focus on planning, supervision and training because it will provide standards for quality control and quality assurance, and the technology, trainers, data processing and scientific oversight to ensure that data are reliable. As for the Global Trachoma Mapping Project, all data will be owned by the relevant national programme and be easily transferrable via electronic connections to the GET2020 Database. Information can then be used to update district-level prevalence categorization on the online Global Atlas of Trachoma (www.trachomaatlas.org).

Tropical Data is expected to save costs, through the use of only one data collection platform, rather than constructing multiple platforms. Implementation costs will be contained by reducing the barriers associated with high-quality prevalence surveys and making credible, current data for decision-making on resource allocation more readily available. Tropical Data will assist the coordinated effort to define and re-define district-level trachoma prevalence, thereby identifying the need for interventions in places where the disease persists and truncating activities where they are no longer needed.

In the future, Tropical Data could facilitate integration of data gathering for trachoma and other NTDs. The existing integrated collection of WASH data will help engagement with WASH partners.

Training-of-trainer sessions will be conducted by Tropical Data in the United Republic of Tanzania (for anglophone countries) in June 2016, and in Senegal (for francophone countries) in July 2016.

Capacity-building needs for trachoma

Dr Teddy Sokesi (Ministry of Health, Zambia) and Ms Girija Sankar (International Trachoma Initiative, United States of America)

As the 2020 deadline for trachoma elimination approaches, there is an ongoing and even increasing need to build capacity within national programmes. Controlling trachoma requires a wide range of skills. National programmes need strengthening.

A number of Alliance partners have collaborated to prepare and present to national programmes an online survey asking respondents to rank their priorities in programme leadership, management and planning; MDA; trichiasis management; programme evaluation; WASH; and cross-cutting issues such as designing and undertaking advocacy.

1. Programme leadership, management and planning
2. WASH
3. Trichiasis management
4. MDA
5. Programme evaluation
6. Cross-cutting issues

Within the Programme leadership, management and planning category, four activities were prioritized by survey respondents: (i) developing leadership skills; (ii) planning for evidence-based programming; (iii) developing and updating programme targets using trachoma action planning; and (iv) developing and managing a budget.

Based on the survey results, there is clearly a need for customized workshops on capacity-building at regional and national levels. Alliance members will work together to hone in on particular needs.

Breakout A

1. How do we fill the capacity-building needs for trachoma?

Capacity building needs differ between countries.

The approach should be country-by-country. Collaboration between endemic countries should be encouraged. Manuals are being prepared by the International Coalition for Trachoma Control, including on training the trainers of TT surgeons (35), supportive supervision of TT surgery programmes (36) and microplanning for effective MDA (37).

2. How do we engage with Tropical Data?

Unlike the Global Trachoma Mapping Project, Tropical Data (www.tropicaldata.org) does not have a central fund to support the costs of survey fieldwork. Like the Global Trachoma Mapping Project, Tropical Data supports the development of survey methodology, project planning and budgeting, set-up of data collection tools, standardized training, field support and trouble-shooting, data cleaning and quality review, automated analysis, health ministry review of data, provision of results, and support for interpretation and presentation.

It is important that data platforms meet national needs and include, for example, additional fields on country-specific data. The architecture of the platform allows for such flexibility while maintaining a high level of standardization for core fields and processes. The Alliance would be happy to make the same technology and processes available for collection and processing of data on other diseases, as requested.

3. How can we take WASH to scale to address the F&E components of the SAFE strategy?

The importance of incorporating WASH programmes into our trachoma elimination work, and vice versa, is recognized. More advice from and engagement with WASH partners is needed.

The question of appropriate and realistic indicators for WASH activities in the context of trachoma elimination was raised but remains open.

Current funding for WASH is limited. More WASH partners should be encouraged to attend future Alliance meetings.

SESSION 4

Antibiotics for GET2020

Mass drug administration of azithromycin in a conflict zone

Dr Georges Yaya (Ministère de la Santé Publique, Central African Republic)

The Central African Republic has been in a civil war since 2012. The national health system has suffered great losses in terms of infrastructure, funds, personnel and service capacity. The Ministry of Health has partnered with United Nations missions and peacekeeping forces in an attempt to protect the health-care system, but challenges abound. Conflict has destroyed the physical environment: muddy uneven roads, fallen trees and debris make transportation of medications, patients and staff difficult. Furthermore, safely receiving, storing and transferring funds is difficult.

The Central African Republic has set a trachoma elimination target date of 2020. Surveys conducted in 2012 showed that the Mbomou, Basse-kotto, Sangha-Mbaéré and Lobaye prefectures were endemic for trachoma. TF prevalence estimates in these prefectures ranged from 28% in Lobaye to 54% in Mbomu.

Despite the challenges identified, antibiotic MDA undertaken in Mbomu in 2015 achieved an estimated coverage of 81%. A total of 26 607 children and 148 625 adults received treatment. The Alliance congratulated the Central African Republic warmly on this success, achieved under extremely difficult circumstances.

Co-administration of azithromycin and ivermectin

Mr Oliver Sokana (Ministry of Health & Medical Services, Solomon Islands)

The integration of different MDA programmes has been recommended in areas wherein multiple NTDs are co-endemic. In a pilot project in Choiseul of the Solomon Islands, azithromycin and ivermectin were co-administered to treat trachoma, yaws and scabies. The baseline TF prevalence in Choiseul was between 5–9.9%.

The integrated campaign cost 19% less than the projected cost of undertaking two separate distribution campaigns. No serious adverse events were reported. As human and transportation resources are limited,

integration may have been the only way to undertake MDA with both drugs. Recipient communities responded to the campaign very positively.

Guidelines on co-administration are currently lacking. As the MDA campaign appeared to be cost effective, safe and popular, the approach will be expanded to other settings in the Solomon Islands.

Achieving high coverage of azithromycin

Professor Abdou Amza (Programme National de Santé Oculaire, Niger)

Investigations in 1988 revealed that trachoma was hyper-endemic in all but one region of Niger. Over the past three decades, the Government of Niger has made progress in controlling trachoma. Multiple NGOs have partnered with the government to implement the SAFE strategy. According to the most recent data, four of 42 districts now have TF prevalence estimates $\geq 30\%$, nine have TF prevalence estimates of 10–29.9%, three have TF prevalence estimates of 5–9.9%, and 25 have TF prevalence estimates $< 5\%$.

Achieving high antibiotic MDA coverage is a top priority in Niger. The number of health districts requiring MDA has decreased from 18 in 2013 to 12 in 2014; however, in seven districts coverage was inadequate in both years. On reflection, the programme has assessed that challenges for maximizing coverage include inadequate supervision, inefficient allocation of resources, and low ownership of the programme by district-level staff and recipient communities, as well as limited working hours.

The solution to these challenges may lie in the integration of MDA across NTD programmes and changes in the number of drug distributors to allow for easier supervision.

Finding and treating nomadic communities

Dr Upendo Mwingira (Ministry of Health and Social Welfare, United Republic of Tanzania)

The United Republic of Tanzania's current main priority is to increase the proportion of people requiring antibiotic MDA who actually receive it. Nomadic communities are a particular challenge. Finding and treating such communities is difficult because of their remote locations, poor transport and communication infrastructure as well as particular cultural norms. In Maasai communities, for example, women and children must get permission from male relatives to participate in mass treatment or vaccination.

Antibiotic MDA for trachoma elimination has taken place for more than a decade, with varying levels of coverage. The prevalence of TF in some areas has been very high, and antibiotic coverage may in some instances have been inadequate given what is presumably very intense transmission of ocular *C. trachomatis*. For example, in 2004, the TF prevalence in Monduli district was 58% (38); antibiotic MDA coverage was 65%.

Non-adherence with advice to take antibiotics in the context of MDA has multiple causative factors. Nomadic communities often rely on traditional treatments and may therefore have inadequate knowledge of NTDs and the treatments for them, which are generally unfamiliar. They may not understand the benefit of taking antibiotics if they do not have symptoms. They fear both known and perceived potential side-effects, and they fear the unknown. They may fear that the personnel distributing the antibiotic treatment have limited training (39). A compounding challenge is the logistical difficulties involved in reaching such communities, which may limit the number of communities visited or the time that is spent in any village.

International Trachoma Initiative report

Dr Paul Emerson (International Trachoma Initiative, USA)

The International Trachoma Initiative manages Pfizer's donation of azithromycin to national programmes. It also harnesses partnerships and plays a significant role in knowledge management, including through work on the GET2020 database and the Global Atlas of Trachoma.

Since 2004, shipments of azithromycin have increased from 20 million doses annually to just over 60 million doses in 2015. In 2016, of the 120 million azithromycin doses slated for shipment, only 32 million have been shipped to date.

The programme is scaling up. A total of 32 countries are expected to receive donated azithromycin in 2016, up from 15 countries in each of 2014 and 2015. In the 2015 programme year, 65.5 million people were targeted for antibiotics; 55.4 million (85%) were treated. At the same time, where appropriate, the programme is scaling down, as impact surveys demonstrate that active trachoma elimination prevalence thresholds have been reached.

The International Trachoma Initiative is ready to support all partners in the Alliance in our collective efforts to eliminate trachoma as a public health problem worldwide.

Report on "A" presentations from the Trachoma Scientific Informal Workshop

Professor Hugh Taylor (University of Melbourne, Australia)

Drugs need to be managed efficiently. Achieving reductions in the prevalence of ocular *C. trachomatis* infection in hypo-endemic populations remains challenging. More work is required in to formulate the appropriate indicators and the timing of surveys. Data from Nepal indicate that surveillance surveys undertaken 2 years after impact surveys show TF prevalence in 1–9-year-olds to be < 5% (34), which is appropriate (40, 41).

Another challenge is our collective ability to measure coverage of antibiotic MDA (42).

Recommendations are still needed about co-administration of drugs for multiple NTDs. Formal studies should be conducted after appropriate ethical approvals are obtained.

Validation of elimination of trachoma as a public health problem

Progress in Nepal

Mr Sailesh Kumar Mishra (Nepal Netra Jyoti Sangh, National Trachoma Program, Nepal)

In 1981, the Nepal Blindness Survey revealed that trachoma was the second most important cause of blindness nationwide. It was a particular problem in the Mid Western and Far Western regions, and predominantly affected women.

In 2002, Nepal's national trachoma elimination programme was created. Baseline surveys revealed 19 districts had TF prevalence estimates in 1–9-year-olds of $\geq 10\%$. A further district had some areas in which TF prevalence was $\geq 10\%$, and was also included in the programme. With the support of the International Trachoma Initiative, the programme implemented the SAFE strategy, with the aim of eliminating trachoma from Nepal by 2017. Impact surveys now reveal that TF prevalence has fallen to $\leq 5\%$ in each of the 20 programme districts.

Nepal has now begun the WHO-recommended surveillance schedule (34) to monitor for re-emergence of disease. Surveillance surveys conducted to date have detected no evidence of trachoma re-emergence; additionally, analysis of dried blood spots reveals much lower prevalence of anti-C. trachomatis antibody positivity than in previous years (41, 43).

Nepal has made considerable progress in its quest to eliminate trachoma, but still has some work to do. In three districts (Dang, Kanchanpur and Surkhet), estimates indicate that TT prevalence exceeds the elimination

threshold. Integration of post-validation trachoma surveillance plans into regular government health surveillance networks has yet to be undertaken. Finally, surveillance surveys are still needed in another eight districts.

Progress in India

Dr Promila Gupta (Ministry of Health & Family Welfare, India)

The National Trachoma Prevalence Survey, commenced in 2014 by the National Programme for Control of Blindness and Visual Impairment, is the first such survey India has carried out in approximately 25 years. The survey includes population-based prevalence surveys conducted in 10 districts, as well as trachoma rapid assessments (44) in 15 districts (45, 46). At the time of the meeting, all the prevalence surveys had been completed; trachoma rapid assessments were still to be completed in five districts.

Data generated during 1959–1963 revealed six states in which the prevalences of active trachoma in children aged < 10 years exceeded 50%: Punjab, Haryana, Rajasthan, Uttar Pradesh, Uttaranchal and Gujarat. Control measures were subsequently implemented. The 1986–1989 WHO-National Programme for the Prevention of Blindness and Visual Impairment survey on blindness demonstrated the efficacy of these measures in India; each of the six states was found to have a trachoma prevalence $< 10\%$.

Trachoma rapid assessments undertaken in the same six states in 2006 revealed that $< 10\%$ of children examined had active trachoma, while the proportion of adults examined who had TT ranged from 0.03% to 0.52%. It was inferred from the survey results that active trachoma had ceased to be a public health

problem, though TF cases were found in all six states. More than 10% of children examined in both Bikaner and Pauri districts had active trachoma.

A trachoma rapid assessment on Car Nicobar Island in 2010 indicated that 51% of children examined had active trachoma. In response, the Government of the Andaman & Nicobar Islands rapidly initiated the SAFE strategy. Following azithromycin MDA with > 80% population coverage over 3 years, a population-based survey in 2013 estimated a TF prevalence of 6.8% (47).

India continues to make progress towards elimination of trachoma. In the future, India aims to complete the data analysis from the National Trachoma Prevalence Survey, further serve remote tribal areas, make azithromycin freely available at district level, and train programme managers at state and district levels so that trachoma rapid assessments can be conducted nationwide.

Progress in China

Ms Rui Zhang (National Health and Family Planning Commission, China)

In the 1940s and 1950s, the prevalence of trachoma was ~30% in urban areas and 80–90% in remote rural areas. At the time of the inception of the Peoples' Republic of China, the principal causes of blindness were infectious eye diseases, mainly trachoma. The new State considered the treatment and prevention of trachoma to be a public health priority, and initiated interventions at national and provincial levels. During the 1960s, the prevalence of trachoma significantly declined; however, programmes to prevent all causes

of blindness were discontinued during the Cultural Revolution. By the time programmes were reinitiated in the 1980s, trachoma was the third leading cause of blindness, accounting for 10% of all blindness in the country.

Following the adoption of World Health Assembly resolution 51.11 in 1998 (48), WHO organized a national workshop on trachoma control in China in 1999. Across 12 provinces, reported active trachoma prevalence estimates ranged from 2% to 20%, while reported TT prevalence estimates ranged from 0.4% to 16%. Based on operational data from medical services between 1999 and 2012, the burden of trachoma continued to decline. It was realized that a renewed set of tailored investigations was needed to assess the true extent of the trachoma problem in China.

In 2012, the National Assessment on Trachoma Endemic Status commenced. Some 97 districts in 16 provinces were designated as being suspected-endemic, based on historical data, local medical records and socioeconomic conditions.

A total of 128 primary schools serving the least-developed villages were visited. At each school, a minimum of 50 students aged 7 years were examined. In villages surrounding the selected schools, residents aged ≥ 15 years were examined for TT and corneal opacity. In total, 8259 children were examined in primary schools and 16 cases of TF were identified. No school had more than four children with TF. All cases were clinically confirmed and treated. Of 87 879 355 adults aged ≥ 15 examined in 55 679 villages, 1334 individuals with TT and 161 individuals with corneal opacity were identified. The data indicated that population-based surveys were not indicated in any of the 16 provinces.

China has reported the results of the National Assessment to WHO. Monitoring for disease will continue in formerly-endemic counties, as will health education and training of health personnel in the detection and management of TT.

Progress in Mexico

Dr Gustavo Sanchez Tejeda (Centro Nacional de Programas Preventivos y Control de Enfermedades, Mexico)

At the 13th Alliance meeting in 2009, Mexico reported that it had reached the goal of eliminating trachoma as a public health problem (49). Mexico has since compiled a dossier of historic and recent information on prevalence and programmatic activity. In 2016, Mexico formally submitted this dossier to the Pan-American Health Organization and WHO, requesting validation of elimination of trachoma as a public health problem.

Chiapas, one of Mexico's poorest states, has been the focus of trachoma elimination efforts since 1985. During 2010–2015, some 3868 cases of trachoma were recorded nationwide. 99.4% of these were in Chiapas. Trachoma is concentrated in five municipalities of the state: Chanal, Huixtán, Oxchuc, San Juan Cancuc and Tenejapa.

In preparing for validation of elimination, in August 2015, epidemiological reports from 2010 to 2015 were reviewed and a cross-sectional trachoma prevalence study was conducted in rural communities of Chiapas State outside the known endemic area. Global Trachoma Mapping Project-certified graders (30) examined 2045 children aged 1–9 years and adults aged ≥ 40 years living with children who had active trachoma, and took

conjunctival swabs from children with TF. Nine children with TF (0.44%) were identified. In each case, conjunctival swabs were negative for *C. trachomatis* DNA. No cases of TT were found.

In April 2016, a trachoma rapid assessment (44) was completed in states other than Chiapas. Nine communities with low socioeconomic status and poor access to water, sanitation health services and education were identified. Of 450 children aged 1–9 years examined in these communities, none had TF.

These investigations show that trachoma is under control in Mexico. Surveillance for new cases in known endemic municipalities will continue. Bi-annual monitoring of individuals with trachomatous scarring has been implemented to provide timely management where needed. TT surgery is offered to those who need it, and post-operative patients are monitored closely. The SAFE strategy will continue to be implemented wherever required.

Design of the template dossier

Dr Anthony Solomon (WHO/NTD Geneva)

A dossier template has been developed and was circulated to a small group of stakeholders as a working draft. WHO requires that all diseases whose target is elimination as a public health problem be evaluated in the same way. For the trachoma validation dossier, much thought has been devoted to minimizing the information requested to demonstrate that the elimination criteria have been met.

The dossier has two parts: a narrative section to indicate what was done and why, and an Excel spreadsheet to report year-by-year data. For programmes that have been sharing data with WHO, the spreadsheet can be pre-populated with reported data.

Preparation of a dossier

Dr Jaouad Hammou (Ministry of Health, Morocco)

In 2001, some 1.5 million Moroccans lived in endemic provinces and were at risk of trachomatous blindness. Morocco was one of the first countries to adopt the SAFE strategy, including MDA with azithromycin. Due to the swift action of the Government of Morocco and its partners, the country was able to decrease the TF prevalence in 1–9-year-olds to < 5% in each of the five endemic provinces in less than 5 years (50).

In 2006, Morocco began to prepare a dossier. The information contained therein has now been reformatted into the WHO template and submitted to WHO; Morocco is currently awaiting the outcome.

The material required for the dossier was relatively straightforward to provide because the programme had maintained detailed records throughout the course of its work. The template first requests some contextual information on the health system and the demographic and socioeconomic background of the country, as well as an overview of the trachoma elimination programme. Secondly, the dossier requests information on the process for delineating areas that required intervention. Thirdly, it asks for information on how the SAFE strategy was implemented. Fourthly, details of impact and pre-validation surveillance surveys are entered. Finally, the country is asked to outline how post-validation surveillance will be undertaken.

Drawing on its own experience, Morocco would be happy to provide advice on dossier preparation to any interested Member State of the Alliance.

Review of the dossier

Dr Santiago Nicholls (Pan American Health Organization, United States of America)

When a country submits a dossier to WHO, an ad-hoc dossier review group reviews it and makes one of two recommendations to WHO: either (i) to validate the claim of elimination as a public health problem; or (ii) to postpone such a decision until more evidence is provided in the dossier to demonstrate that this has occurred. WHO acts as Secretariat, and is responsible for organizing meetings of the dossier review group, providing clear direction with respect to its responsibilities and decision-making processes, liaising with Member State authorities to obtain any additional information, preparing a summary report and obtaining sign-off. The Secretariat may organize a country visit if deemed necessary (32).

When WHO validates elimination of trachoma as a public health problem, the achievement is acknowledged in the annual disease-specific article published in the Weekly Epidemiological Record (51, 52), a letter signed by the WHO Director-General is sent to the health ministry, and the trachoma endemicity status of the Member State in the Global Health Observatory is changed to “validated as having eliminated trachoma as a public health problem” (32).

Discussion

Countries must submit dossiers to WHO. The dossier review group is an ad-hoc independent expert group that makes a recommendation to WHO. It has at least three members, at least one of whom (if possible) will be very knowledgeable about the implementation of SAFE interventions in the Member State under consideration. Individuals who are nationals of the Member State under consideration, work for the National Health Authority of the Member State under consideration, have been involved in implementation of the SAFE strategy in the Member State under consideration, or have supported the preparation of the dossier are not included.

Q: What are the respective roles of the WHO regional office and WHO headquarters?

A: The WHO country office, regional office and headquarters work in collaboration. The dossier is submitted via the country office and shared within WHO. Membership of the dossier review group is agreed by consensus. Formal responsibility for overseeing the process rests with the regional office.

Q: What is the role of the E component of the SAFE strategy in the review?

A: The objective of the trachoma elimination programme is to eliminate trachoma as a public health problem, not to ensure universal access to water and sanitation. If a programme demonstrates that disease has been brought to levels below the agreed prevalence thresholds, they have achieved the disease elimination targets, regardless of whether water or sanitation are widely available.

Q: What is the recurrence rate following surgery in Nepal?

A: In the regions where recurrence was assessed, the incidence was < 10% for operations performed in hospitals.

Q: What was the reason for selecting children of school-age for the assessments undertaken in China?

A: The rationale was that if TF was found in a school then the whole community served by that school would be examined.

Q: Is there any possibility that lessons learnt from dossiers completed and processed so far can be documented so that other countries can learn from the experience?

A: Yes, once countries have finalized dossiers, the intention is to make them available online so that other countries can refer to them.

Q: What is the role of post-validation surveillance in decision-making?

A: The dossier review group can decide how much emphasis to place on this section. WHO's recommendation is that this should not be critical to the actual decision of whether or not trachoma has been eliminated as a public health problem, since the future is difficult to predict. The dossier review group is specifically asked to make recommendations to the country as well as to WHO (32), and suggestions to refine post-validation surveillance plans would logically be included there.

Q: What is a trachoma rapid assessment?

A: The trachoma rapid assessment is a published methodology for identifying areas in which trachoma is most likely to be heavily endemic. Because it is optimally biased to find trachoma if the disease is present, it is often used as a way to exclude the presence of trachoma (44).

Q: Is a series of trachoma rapid assessments an acceptable method to inform whether trachoma elimination has been achieved at national level?

A: In China, it was not considered feasible to carry out large-scale population-based surveys.

Instead, trachoma rapid assessments were performed. Had strongly positive signals been detected by those assessments, population-based surveys would have been undertaken.

Q: What is the appropriate evaluation unit size, particularly in countries in which districts are large?

A: WHO recommends that the prevalence of trachoma should be assessed at district level, defined as the administrative unit for health care management, which for purposes of clarification consists of a population unit of 100 000–250 000 persons. If evidence is presented at a different level, the dossier review group will evaluate it on its merits.

SESSION 5

Surgery for GET2020

The “TT-Plus” approach to delivering trichiasis services at community level

Dr Patrick Turyaguma (Ministry of Health, Uganda)

In 2006, baseline epidemiological mapping was conducted in seven districts in eastern Uganda (two from the Karamoja sub-region and five from the Busoga sub-region). Trachoma was revealed to be hyper-endemic in each of the seven districts. The Government of Uganda started to implement the SAFE strategy in 2007.

The most recent data suggest that 16 districts have TT prevalence estimates of 0.1–0.9%, 20 districts have estimates of 1–4.9%, and four districts have estimates of > 5%. The Queen Elizabeth Diamond Jubilee Trust has funded 19 663 TT surgeries since 2014.

Coordinated with work funded by the Trust, the TT-Plus programme, funded by Sightsavers, has improved access to high-quality eye-care services in Uganda. Ophthalmic Clinical Officers at TT-Plus camps provide screening,

immediate treatment where feasible, referrals, free transportation to treatment and post-operative follow-up. TT-Plus is cost-effective and increases patient mobilization. It is popular with recipients. However, challenges remain regarding the sustainability of the programme, particularly because of the lack of intra-ocular lenses and a shortage of diagnostic tools and post-operative drugs. Camp infrastructure also needs improvement: there is inadequate space at camp sites and therefore a lack of accommodation for patients who cannot be taken home.

How much trichiasis is trachomatous?

Dr Khaled Amer (Ministry of Health, Egypt)

Most population-based trachoma prevalence surveys in the past three decades have used the WHO simplified trachoma grading system (54), which does not require the presence of trachomatous scarring (TS) in the conjunctiva as a diagnostic criterion for TT. The presence of TS could potentially be used to differentiate TT from trichiasis due to other causes. Whether

or not this is appropriate is important, since (i) the goal of trachoma elimination programmes is to eliminate trachoma as a public health problem, not to rid the world of all trichiasis; and (ii) the TT elimination prevalence threshold is low.

Since August 2014, most trachoma prevalence surveys have included assessment for the presence or absence of TS in eyes with trichiasis, as recommended at the Technical Consultation on Trachoma Surveillance (34) and at the 2nd Global Scientific Meeting on Trachomatous Trichiasis (53).

In four recent surveys supported by the Global Trachoma Mapping Project in the Elmenia and Bani Suef governorates of Egypt, of 171 people with trichiasis, 134 (78%) had TS in the same eye (or the grader was unable to evert the eyelid, which was presumed to be due to TS). The age- and gender-adjusted prevalence of all-trichiasis in adults aged ≥ 15 years in these evaluation units ranged from 1.67% to 3.56%.

In the discussion that ensued, Member States requested that WHO work with partners to generate further evidence and provide formal guidance on how TT elimination thresholds should be defined.

Offering epilation for the management of trachomatous trichiasis

Dr Lucienne Bella Assumpta (Ministère de la Santé Publique, Cameroon)

In 2015, some 25 139 individuals were screened for TT in Cameroon, 2705 TT cases were identified and 2693 patients chose to undergo operations. Twelve refused surgery. The most common reasons for refusal were: needing permission from the head of the household, lack of an accompanying supporter (where bilateral surgery was indicated), surgery proposed during the farming season and fear of surgery.

To manage refusals, surgeons try to convince patients of the importance of surgery, to seek support from local opinion-leaders and to organize meetings with patients who have benefitted from the surgery.

Other efforts that have been made to decrease the chances of surgery refusal include ensuring that surgical team members are culturally sensitive and address any of the patients' fears, maximizing the quality of surgeries (through mannequin-based training (55), for example) and ensuring that the waiting area for patients is kept at a reasonable distance from the operating theatre.

Where patients still refuse, epilation of eyelashes (56-58) is offered as an alternative to surgery. Guidelines on who should perform epilation, the tools used, the frequency at which it should be offered and how it should be monitored, have yet to be developed.

An app for surgeons to log and track patients with trachomatous trichiasis in Malawi

Dr Khumbo Kalua (Lions Sightfirst Eye Hospital, Malawi)

Most programmes and most surgeons previously used paper to document TT and TT surgery. The Blantyre Institute for Community Ophthalmology took advantage of the Global Trachoma Mapping Project and other available resources to develop an inexpensive app to be used by surgeons, other programme staff and relevant Ministry of Health personnel. Surgeons and staff are trained to use Android smartphones to capture data in the field, whereupon information is securely uploaded into a Cloud-based server. The data are password-protected and maintained locally and are easily (and permanently) accessible to authorized users.

The system allows users to design tailored questionnaires, with the app rendering the forms for data collection. Information is collected on mobile devices. Aggregate data are located on the server. A demonstration was provided. Considerable interest in the system was expressed by other members of the Alliance.

Use of HEAD START in surgeon training at programmatic level

Dr Nicholas Preowei Olobio (Federal Ministry of Health, Nigeria)

High-quality TT surgery is critical to the elimination of trachoma as a public health problem. The HEAD START system (55) is an operable silicone mannequin for training, self-assessment and evaluation of TT surgeons that aims to improve surgical outcomes. The removable eyelid cartridges on the mannequin allow trainees and certified surgeons (59) to practise and refine their skills without risk to real patients.

HEAD START is being used in Nigeria where TT prevalence is above the elimination threshold in 227 districts of 15 states. HEAD START training follows a 2-week schedule. The first week is purely theoretical; the second week is practical. In the second week, a minimum of 15–20 operations must be performed as part of the certification process. Trainees must then pass a final exam that encompasses theory and practice.

Since its first year of use in Nigeria, more than 80 TT surgeons have been trained and certified using HEAD START. Additionally, 17 surgeons from the Central African Republic, Chad, Ethiopia, the United Republic of Tanzania and Zambia have attended HEAD START training in Addis Ababa.

Report on “S” presentations from the Trachoma Scientific Informal Workshop

Dr Emily Gower (Wake Forest University, USA)

In a randomized controlled trial in Ethiopia, posterior lamellar tarsal rotation was associated with significantly fewer episodes of recurrent trichiasis than bilamellar tarsal rotation, and could be the preferred procedure for routine management. Further work is needed to confirm this finding (60, 61).

In Kongwa District, United Republic of Tanzania, among 167 individuals (mean age of 61 years) with TT, fear, not being able to afford surgery, not knowing where to receive surgery, believing that surgery providers were too far away, not having someone to accompany and help them, and claiming they could manage TT on their own by epilating were significant obstacles to receiving surgery. Many participants suggested that better pre-surgery education would improve surgical uptake (62).

TT surgery significantly increases vision-related and health-related quality of life in people with TT (63).

Recommendations of breakout session B discussions

1) An app for surgeons to log and track patients with TT

- There is a need for secure data platforms to support TT surgeons.
- Monitoring systems for TT surgery differ because funding initiatives, national trachoma elimination programmes and even individual surgeons have created their own monitoring systems,

none of which are ideal to support all stakeholders. Many systems have overlapping geographical footprints.

- WHO recognizes the need to develop a common system that complements existing systems (64). This system would register patients with previously un-managed TT and track them through the patient pathway. Subsets of information collected through the system could be made available to all relevant stakeholders without compromising data confidentiality requirements, meet the data needs that exist at all levels of all programmes, require minimal training, and be offered and supported at no cost to programmes. Security and interoperability with other national databases and reporting systems are critical. A full audit trail showing access to data will be made available without the need for database administrator access. Once set up, the system will be solely maintained by the national programme and supported free of charge. This system will soon be field tested in Malawi.

2) How can yaws eradication and trachoma elimination programmes in the Pacific Island countries work together?

- Countries should aim for 100% coverage during antibiotic MDA.
- Integration of communication materials and reporting is important.
- Ensure donated Zithromax is kept separately from other forms of azithromycin before, during and after MDA: other presentations have different tablet strengths, which could lead to under- or over-dosing if products are confused.
- Assessment of the prevalence of yaws should be included in trachoma impact surveys.
- Countries should consider initiating a Joint Task Force between the WASH sector and programmes for trachoma

and yaws. There is an urgent need to prioritize WASH interventions.

3) How can trachoma elimination programmes be financed?

Background

The 2030 agenda for sustainable development set out in the Sustainable Development Goals includes (within Goal 17 on Partnerships) a specific target on financing. This includes:

- domestic (endemic country) public financing;
- international public financing; and
- private (corporate and individual) financing.

The discussion was framed around these three categories.

Several cross-cutting themes were also raised, and were reflected to some extent in the discussion. These will require further focus in future work, notably on:

- value for money, including efficiency;
- capacity to understand and communicate about financing at different levels; and
- collaboration between endemic countries on financing options and opportunities.

1. Domestic finance

- a. Problem statement: although there has been a focus on generating trachoma action plans at country level, less focus has been paid to financing these plans and sustaining adequate investment in SAFE implementation until (and following) elimination. This has resulted in some countries having to seek financial resources regularly (sometimes annually), with no guarantee of funding for the entire period needed to reach elimination. For this reason, domestic

funding is often viewed as being less reliable than other forms of funding.

- b. There has been an increase in domestic financing, although this does not always include money earmarked for trachoma (e.g. where NTD control and elimination activities can be funded in part through funding for universal health coverage or WASH). In the context of integrated delivery of services, it may be more useful to consider the gap in terms of funding for broader NTD programmes.
- c. We need to shift focus away from acquiring new funding and to initiating priority setting by health ministries. Messaging could include the fact that an increased commitment to universal health coverage should translate into prioritizing cost-effective interventions that reach the poor – such as antibiotic MDA and TT surgery.
- d. We should avoid a fixed focus on funding the full SAFE strategy through a single funding channel, since having a dedicated budget line for trachoma elimination is very challenging. Different SAFE components can be funded through different parts of the health system.
- e. Our messaging around elimination should reflect the reality of the funding needed. An emphasis on 2020 as an end-point risks investment in post-elimination activities. We need to make it clearer that spending will still be needed after elimination targets have been met.
- f. Funding strategies should be individualized at country level, based on funding gap analyses, which include objectives, costs and funding options in the short, medium and long term. A different strategy will be needed for post-elimination activities to ensure that impact is sustained. Strategies should clearly set out the key phases of trachoma programmes, from high prevalence to surveillance to post-elimination, and the financing scenarios appropriate for each

phase.

2. International finance

- a. Some new donors have joined the NTD cause (e.g. Republic of Korea). Overall, there has been a shift away from NTDs, and within NTD-supporting donors, increased focus is being given to funding research rather than implementation. Additionally, the NTDs are now being grouped (in the context of Sustainable Development Goal 3.3) with other infectious diseases of higher visibility, such as HIV/AIDS, tuberculosis and malaria, but there is little motivation within the Global Fund for an expansion of its mandate to include NTDs. We should look beyond the G7 donors for new sources of funding.

- b. Two key ways to position trachoma with international donors emerged:

- i. Trachoma programmes contribute to the attainment of universal health coverage, and strengthen health systems
- ii. Trachoma is a “best-buy” in public health, is highly effective and cost effective, and includes what is currently the biggest public-private partnership donation scheme.

The choice between those would depend on the interests and priorities of the donor in question.

- c. Key steps needed:

- i. Country governments should [be supported to] engage donor offices at country level.
- ii. Funding channel options should be developed to make disbursement simpler (e.g. in Colombia, the Ministry of Health received funding indirectly through a private organization to reduce the administrative bureaucracy involved in receiving official aid).

- iii. Stakeholders should elaborate ways to better position trachoma within new arrangements for universal health coverage.
- iv. WHO's work on tools for integrating NTDs into health systems' costing and budgeting processes should be supported and utilized, while building on the existing Tool for Integrated Planning and Costing, to show levels of domestic investment needed.

3. Private finance

- a. Changing context:
 - i. Corporations are increasingly linking their Corporate Social Responsibility strategies to the Sustainable Development Goals; there are also examples of corporations investing in causes that affect their workforce (e.g. HIV/AIDS investment by mining corporations in South Africa), or their revenue stream (e.g. soap companies investing in hygiene promotion).
 - ii. Even middle-income endemic countries have increasing numbers of high net-worth individuals who are seeking opportunities to invest in social causes.
 - iii. Professional associations can be important collaborators both in terms of developing solidarity with professionals working in other countries and in supporting causes related to their area of work (e.g. in

Colombia, the trachoma programme has forged collaborations with plastic surgeons who donate their time and skills, and with the Society of Ophthalmologists, who donate equipment).

- b. Engagement with the private sector goes beyond finance: skills, contacts and marketing/branding capacities are all advantageous and help foster a more robust partnership. Private sector participants at the breakout session invited endemic country participants to tell them how else they might be able to help.
- c. Existing donors can help engage new donors, by articulating why they invest in trachoma or NTDs.
- d. Countries must be supported to better match the right donor for their programme objectives. In Colombia, integration of trachoma with other disease-control work prompted an existing donor to disengage, and this could be a risk in other countries during the later stages of the programme. Other donors may be more attracted to integration and system strengthening. A potential role for the Alliance could be to match donors with the type of programmes they are interested to support.

SESSION 6

Report back from breakout C discussions: plans of action

Recognizing the need for urgent and coordinated action to advance the GET2020 goals, members of the WHO Alliance for the Global Elimination of Trachoma by 2020 adopted the following commitments by acclamation:

All parties

- Promote trachoma elimination within the context of universal health coverage and as a tracer for poverty alleviation within the Sustainable Development Goals.
- Enhance national ownership of and partnership for elimination efforts.
- Use the latest data to inform elimination plans, promotional materials and funding proposals; and update all relevant information sources.
- Use technology where possible to improve efficiency of elimination efforts and reproducibility of data.
- Share emerging data and experience to inform current practice and realign priorities as needed for elimination.
- Support validation dossier development where requested.

World Health Organization

- Revise the template dossier in light of the Morocco experience, and finalize standard operating procedures for dossier review and validation of elimination.
- Support dossier development with countries claiming to have eliminated trachoma.
- Validate countries as having achieved the elimination of trachoma as a public health problem.
- Lead the NTD financing dialogue and publish the economic case for trachoma elimination.
- Engage WHO country offices to influence relevant ministries of trachoma-endemic Member States.
- Facilitate meetings of the WHO Alliance for GET2020.
- Help to maintain and update the WHO Alliance for GET2020 database.
- Update relevant WHO guidance on trachoma as needed and contribute to the development of implementation tools.

- Formalize the Network of WHO Collaborating Centres for Trachoma and contribute to operational research as appropriate.
- Lead the standardization of impact surveys and surveillance surveys through the WHO-led Tropical Data platform.
- Contribute to ongoing capacity-building efforts.

Governments of endemic countries

- Ensure that political commitment to elimination extends from national decision-makers to communities in need.
- Increase domestic funding for these initiatives, as an investment in a strong and functioning public health system.
- Bring together key decision-makers from health, education, WASH and finance ministries; and with donors and implementing partners to better integrate elimination efforts.
- Apply the WHO global strategy, Water, sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases, to maximize the integration of trachoma and WASH interventions.
- Embed targeted hygiene practices relevant to trachoma elimination in school health curricula and health worker training packages.
- Work with neighbouring countries to address common trachoma elimination challenges, particularly along shared borders.

Public and private donors

- Reaffirm our commitments across implementation, research and drug donations.
- Create a Donor Coordination Group that meets virtually every quarter to: review timelines and activities, discuss long-term priorities, and identify opportunities for greater coordination

in advocacy and funding, informed by input from other constituencies within the Alliance.

- Support the Alliance in forging new partnerships and initiatives to further the goals of GET2020.
- Explore the development of a coordinated, proactive advocacy strategy to help raise visibility of the Alliance, and attract new donors and partners.
- Recognizing the importance of domestic financing, stand ready to support country efforts.

NGOs and other implementing partners

- Help to maintain and update Global SAFE Implementation Cost Estimates.
- Prioritize strategic resource mobilization and SAFE implementation for all areas with a TF prevalence in 1–9-year-olds $\geq 30\%$ that are still not under intervention.
- Support implementation of high-quality TT surgery, through the application of technology to track cases and the adoption of protocols for surgical supervision.
- Work together to focus efforts on underperforming “A, F, E” areas, including through raising awareness of the tools available to support decision-making, strengthening MDA planning for improved coverage, and coordinating expansion by maximizing drug availability and involving WASH partners.
- Stand ready to support countries to prepare and submit their dossiers to WHO for validation of elimination.

Academic and research institutions

- Facilitate the annual Trachoma Scientific Informal Workshop.
- Develop and maintain a forum for discussing strategic directions for trachoma research.

- Work with ministries of health in endemic countries and other stakeholders to undertake, publish, package and disseminate research that will help accelerate achievement of and validate the global elimination of trachoma, with particular focus on including research components in large-scale elimination programmes, as part of multi-centre investigations that address critical questions about the effectiveness of various interventions.
- Build scientific capacity in endemic countries in which research is undertaken.

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Annexes

ANNEX1: AGENDA

Tuesday, 26 April 2016

Session 1

Time	Topic	Speakers / Facilitators
08:00–08:30	Registration	
08:30–08:50	Welcome to country	Uncle Chicka Madden (Gadigal Elder) & Descendance
08:50–09:40	Introduction of participants	All
09:40–10:00	Keynote speech	Caroline Harper (Sightsavers)
10:00–10:30	Trachoma in Australia	Paula Wines (Northern Territory Department of Health) & John Kaldor (Kirby Institute)
10:30–11:00	Coffee break	
11:00–11:10	The contribution of GET2020 to the Sustainable Development Goals	Anthony Solomon (WHO)
11:10–11:20	The economic case for GET2020	Christopher Fitzpatrick (WHO)
11:20–11:30	Endemic country commitment to GET2020	Lamine Traore (Mali) & Kepoue Andrew Natnaur (Vanuatu)
11:30–11:40	GET2020 and the private sector	Darren Back (Pfizer)
11:40–11:50	Bilateral support to GET2020	Angela Weaver (USAID) & Iain Jones (DFID)
11:50–12:10	ICT contributions to GET2020, and launch	Virginia Sarah (ICTC)
12:10–14:00	Group photograph and lunch	

Session 2

Time	Topic	Speakers / Facilitators
14:00 – 15:30	Water, Sanitation and Hygiene for GET2020	
	1) How much does it cost to implement WASH for 250 000 people? Can the trachoma programme do it alone?	Balgesa Elshafie (Sudan)
	2) WASH activities in Australia	Hugh Taylor (University of Melbourne)
	3) Ethiopia action plan on WASH	Nebiyu Negussu (Ethiopia)
	4) Reducing trachoma transmission in a conflict zone	Tawfik Al-Khatib (Yemen)
	5) WASH in the Western Pacific Region	Rabindra Abeyasinghe (WPRO)
	6) Report on F&E presentations from the Trachoma Scientific Informal Workshop	Virginia Sarah (Fred Hollows Foundation)
	Discussion	All
15:30 – 15:45	Coffee break	
15:45 – 17:00	Regional reports	Andreas Müller (WPRO)
		Anthony Solomon (WHO)
		Ismatullah Chaudhry (EMRO)
		Santiago Nicholls (PAHO)
17:00 – 18:00	Partners' panel discussion	Warren Lancaster (END Fund)
18:30 – 20:30	Reception (hosted by WHO), Four Seasons Hotel	

Wednesday, 27 April 2016

Session 3

Time	Topic	Speakers / Facilitators
08:30–09:15	World Health Organization report	Anthony Solomon (WHO)
09:15–09:30	Global Trachoma Mapping Project report	Tom Millar (Sightsavers)
09:30–09:45	Introducing: Tropical Data	Anthony Solomon (WHO)
09:45–10:00	Capacity-building needs for trachoma	Teddy Sokesi (Zambia) & Girija Sankar (ITI)
10:00–10:30	Breakout A	
	1) How do we fill the capacity-building needs for trachoma?	Matthew Burton (LSHTM) & Chad MacArthur (KCCO)
	2) How do we engage with Tropical Data?	Nicholas Olobio (Nigeria) & Siobhain McCullagh (Sightsavers)
	3) How can we take WASH to scale to address the F&E components of the SAFE strategy	Sophie Boisson (WHO) & Yael Velleman (WaterAid)
10:30–11:00	Coffee break	
11:00–11:45	Breakout A, continued	
11:45–12:15	Report back from Breakout A Discussion	Breakout group representatives All
12:15–14:00	Lunch	

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Session 4

Time	Topic	Speakers / Facilitators
14:00–15:30	Antibiotics for GET2020	
	1) Mass distribution of azithromycin in a conflict zone	Georges Yaya (Central African Republic)
	2) Co-administration of azithromycin and ivermectin	Oliver Sokana (Solomon Islands)
	3) Achieving high coverage of azithromycin	Abdou Amza (Niger)
	4) Finding and treating nomadic communities	Upendo Mwingira (UR Tanzania)
	5) International Trachoma Initiative report*	Paul Emerson (ITI)
	6) Report on “A” presentations from the Trachoma Scientific Informal Workshop	Hugh Taylor (University of Melbourne)
	Discussion	All

Time	Topic	Speakers / Facilitators
15:30 – 16:00	Coffee break	
16:00 – 18:00	Validation of elimination of trachoma as a public health problem	
	1) Introduction	Anthony Solomon (WHO)
	2) Progress in Nepal	Sailesh Mishra (Nepal)
	3) Progress in India	Promila Gupta (India)
	4) Progress in China	Rui Zhang (China)
	5) Progress in Mexico	Gustavo Sanchez Tejeda (Mexico)
	6) Design of the dossier	Anthony Solomon (WHO)
	7) Preparation of a dossier	Jaouad Hammou (Morocco)
	8) Review of the dossier	Santiago Nicholls (WHO)
	Discussion	All
18:30 – 20:00	Cocktail reception and photographic exhibition (hosted by Australian Partners in Trachoma Control), the Museum of Contemporary Art, Sculpture Terrace, Level 4, 140 George Street, The Rocks	

Thursday 28 April 2016

Session 5

Time	Topic	Speakers / Facilitators
08:30 – 09:15	The 2nd Global Trichiasis Scientific Meeting	Amir Bedri Kello (Light for the World)
09:15 – 10:15	Surgery for GET2020	
	1) The “TT-plus” approach to delivering trichiasis services at community level	Patrick Turyaguma (Uganda)
	2) How much trichiasis is trachomatous?	Khaled Amer (Egypt)
	3) Offering epilation for the management of trachomatous trichiasis	Lucienne Bella (Cameroon)
	4) An app for surgeons to log and track patients with trachomatous trichiasis	Khumbo Kalua (BICO)
	5) Use of HEAD START in TT surgeon training at programmatic level	Nicholas Olobio(Nigeria)
	6) Report on “S” presentations from the Trachoma Scientific Informal Workshop	Emily Gower (Wake Forest)
	Discussion	All
10:15 – 10:30	Secondary analyses of GTMP data	Academic partners
10:30 – 11:00	Coffee break	

Time	Topic	Speakers / Facilitators
11:00–12:15	Breakout B	
	1) An app for surgeons to log and track patients with trachomatous trichiasis	Alex Pavluck & Khumbo Kalua
	2) How can yaws eradication and trachoma elimination programmes in the Pacific Island countries work together?	Fasihah Taleo & Dave Ross
	3) How can trachoma elimination programmes be financed?	Christopher Fitzpatrick & Julián Trujillo
12:15–14:00	Lunch (GTMP data lunch)	

Session 6

Time	Topic	Speakers / Facilitators
14:00 – 15:00	Report back from Breakout B	Breakout group representatives
	Discussion	All
15:00–15:30	Breakout C: Plans of action	
	1) Country representatives	Nguyen Xuan Hiep & John Kaldor
	2) WHO	Ismat Chaudhry & Sophie Boisson
	3) NGOs	Caroline Harper & Jérôme Bernasconi
	4) Donors	Angela Weaver & Julie Jenson
	5) Academic and training institutions	Caleb Mpyet & Manoj Gambhir
15:30–16:30	Coffee break	
16:00–16:30	Breakout C: Plans of action (continued)	
16:30–17:30	Report back from Breakout C	Breakout group representatives
	Discussion	All
17:30–18:00	Meeting feedback and meeting close	Chair

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