

**Report of the Thirteenth Meeting of the
WHO Alliance for the
Global Elimination of Blinding Trachoma**

Geneva, 20–22 July 2009

**GLOBAL ELIMINATION OF BLINDING TRACHOMA
BY THE YEAR 2020**

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1. INTRODUCTION

The Thirteenth Meeting of the WHO Alliance for the Global Elimination of Blinding Trachoma by the Year 2020 (GET 2020) was held at the headquarters of the World Health Organization (WHO), Geneva, Switzerland, from 20 to 22 July 2009. The meeting was attended by 81 participants, of whom 31 were national coordinators for trachoma control programmes (Annex 1).

Dr Michael Mbee Gichangi (Kenya) was elected Chairman, Dr Paul Emerson (the Carter Center) Vice-Chairman, and Dr Abdou Amza (Niger) and Mr B.B. Thapa (Nepal) Rapporteurs. The Agenda was adopted (Annex 2).

Dr Fiona Adshead, Director, Chronic Diseases and Health Promotion, WHO, Geneva, welcomed the participants and said that the significant reductions in the estimated global burden of active trachoma in recent years, from 84 million in 2003, to 60 million in 2005 and to the current level of 40 million, are a testament to the results that can be achieved by working together in partnership through a body such as the Alliance. They represent considerable progress in helping millions of people at risk of blindness and in building stronger national health systems to ensure a better future. The WHO Director-General places great emphasis on the health of vulnerable groups, especially women and children. Trachoma can have a devastating effect on individuals and families and, clearly, the tasks undertaken by women in their daily lives put them at greater risk of contracting the disease. Moreover, women often experience greater stigmatization if they become blind. The WHO-endorsed SAFE strategy is a paradigm for development, bringing together activities in respect of its four components: eyelid surgery (“S”), antibiotic treatment (“A”), facial cleanliness (“F”) and environmental improvement (“E”). She welcomed the progress made in collecting data, since it is important to document activities and to understand what works, and commended the countries that have achieved the ultimate intervention goals. Effective partnerships and intersectoral collaboration are key elements for success. The Thirteenth Meeting of the Alliance is an opportunity for all partners, countries, institutions and international donors, to renew their commitment to the achievement of the 2020 target. WHO remains fully committed to working with the Alliance and to the provision of strong technical and policy support for the implementation of the SAFE strategy.

Dr Lorenzo Savioli, Director, Control of Neglected Tropical Diseases, WHO, Geneva, referring to recent remarks by United States President Barack Obama, said that there is clearly going to be significantly greater financial support from the United States for the control of neglected tropical diseases in the coming years. It is essential to ensure effective use of the funds made available. The United States administration wishes to see the reinforcement of national health systems so that they can meet the needs of the poorest and most vulnerable through an integrated approach. That vision, corresponds to that of WHO, which also includes a respect for specificity and for the different constituencies currently involved in neglected tropical disease control, for example the GET 2020 Alliance, the Global Alliance to Eliminate Lymphatic Filariasis (GELF) and the African Programme for Onchocerciasis Control (APOC). It is important to achieve an appropriate balance between those constituencies in the integration of activities at country level.

2. REVIEW OF TRACHOMA DATA FORMS

Dr Silvio Paolo Mariotti, Medical Officer, GET 2020 Secretary, World Health Organization, Geneva, Switzerland

Trachoma data forms, the tool used to monitor the status of blinding trachoma, were sent by WHO to national coordinators in 45 of the 57 trachoma-endemic countries and were completed by 40 (89%) compared with 38 of 45 (84%) in the previous year, although many were received late. The completed forms, which will be made available on the Alliance web site, showed improvements in the reporting of district-level data and the consistency in the setting of AIOs and UIGs. They also showed increases in the data on coverage for the “S” and “A” components of the SAFE strategy, and in data reported on the basis of surveys rather than estimates (78% compared with 66%). They indicated an increase in the delivery of SAFE in some countries and showed that trachoma control was benefiting from the higher public health profile of neglected tropical diseases. However, many countries are still not using AIOs and UIGs to monitor progress, and in some cases district-level data did not correspond to the national aggregated data. Countries that are not receiving antibiotic donations did not report well and many responses did not provide information on the “F” and “E”

components. Stated political support is not always being translated into concrete actions. There has been some slippage in the target dates for the elimination of blinding trachoma but it is still hoped that many countries will achieve elimination before 2020. Countries sometimes used old forms to submit data; as the forms are updated on the basis of experience, they are urged to use the latest version sent to them and to complete the forms through a collaborative process involving all partners in order to get the most reliable picture possible. There is some concern that the forms are not capturing the entire picture of trachoma control at national level.

Ghana has reported to have achieved its UIG and Mali and Ghana have started work on trachoma surveillance. Ghana, Guinea, Mali, Nepal, Niger and Viet Nam have included provision of information on the prevention of trachoma through hygiene in the primary school curriculum. A meeting on surveillance for post-endemic trachoma areas/countries was held in November 2008 and new partners have become involved in trachoma elimination.

The trachoma data forms are increasingly indicating endemic and non-endemic districts, showing that district-level data are being collected. Surgery coverage was reported by 29 countries: six achieved 100% of their target and 11 \geq 80%, while 15 achieved $<$ 50%. Although a record number of surgeries was performed in the year, the level was still well short of the target. Of the 24 countries reporting antibiotic coverage, five achieved \sim 100% of their fixed target and 10 \sim 80%. Of the 17 countries reporting coverage data on the "F" component more than half achieved $>$ 80% of their fixed target. In relation to the "E" component, 33 countries provided information; 29 reported that a plan was in place for the attainment of Millennium Development Goal 7 (Ensure environmental sustainability).

Discussion

Improvements in reporting. Countries are given feedback on their trachoma data forms by WHO and clarifications are sought. However, this is difficult when forms are received late. Countries are urged to establish a national trachoma task force involving all relevant partners, where this does not yet exist, and to complete the trachoma data form through a meeting of the task force that gives due attention to the intersectoral nature of trachoma control. It might be useful to include on the form a question on whether there is a national task force. Countries should also give greater attention to collecting data at district level, preferably as part of a strong monitoring and reporting

system for all diseases. Trachoma control, eye care and prevention of blindness should be incorporated in country cooperation strategies and primary health care.

Surgery. Participants welcomed the performance of a record number of trachomatous trichiasis (TT) surgeries (>143 500) in 2009, thanks in particular to a great effort in Ethiopia.

3. INTERNATIONAL COALITION FOR TRACHOMA CONTROL

Mr Chad MacArthur, Director, Training and Community Education, Helen Keller International, New York, NY, USA

The International Coalition for Trachoma Control (ICTC) is a coalition of non-governmental organizations working on trachoma control: Christian Blind Mission International, the Eyes of the World Foundation, Helen Keller International, the International Trachoma Initiative (ITI), Lions Clubs International Foundation, Light for the World, Operation Eyesight, ORBIS International, *Organisation pour la Prévention de la Cécité*, Sight Savers International, the Carter Center and World Vision. The Coalition holds an annual meeting following each Alliance annual meeting and encourages participation from other interested parties, for example, the Johns Hopkins University, the Conrad N. Hilton Foundation, Pfizer Inc. and representatives of endemic countries. The Coalition aims to promote the sharing of information on trachoma control and the coordination of the activities of nongovernmental organizations and other partners to achieve GET 2020. It also seeks to engage development partners in order to strengthen activities related to the “F” and “E” components of the SAFE strategy, to mobilize additional resources and to strengthen advocacy to raise awareness about trachoma and GET 2020.

The agenda for the Coalition’s forthcoming meeting will include a discussion on the advantages and disadvantages of joining with other disease-specific coalitions of nongovernmental organizations, in particular the Nongovernmental Development Organization (NGDO) Coordination Group for Onchocerciasis Control and the Lymphatic Filariasis NGDO Network, to create a larger NGDO Working Group for

neglected tropical diseases. It will also provide each member with the opportunity to update the Coalition on its activities since the previous meeting in April 2008 and its plans for the next 12 months. The Coalition will consider technical needs and solicit technical support, where needed, from those nongovernmental organizations with a comparative advantage in particular fields e.g. the Carter Center on latrine construction and Helen Keller International on achieving favourable behaviour change. It will also discuss the development of strategies to help endemic countries make the transition from trachoma control to the elimination of the disease as a cause of blindness. Finally, the Coalition will review its first five years and make recommendations as to how it can be strengthened.

Discussion

Alliance meetings. Participants called on the nongovernmental organizations to ensure that Alliance meetings continue, despite the current economic climate.

WHO support. Consideration should be given as to how best WHO can support countries through the Alliance.

Wells. Further support is needed for well-drilling, one of the more expensive aspects of environmental improvement but one that is necessary for implementation of the full SAFE strategy. Operation Eyesight is constructing wells where no other partner is available (such as World Vision), as for example in the Masai Mara, Kenya, at a cost of up to US\$ 40 000 per well, and in Zambia at US\$ 5000–6000.

4. REPORT OF THE TRACHOMA INFORMAL SCIENTIFIC WORKSHOP 2008

Dr Rajiv Bhalchandra Khandekar, Ophthalmologist, Epidemiologist, Eye & Ear Health Care, Eye Health Care Programme, DAHA, Ministry of Health Muscat, Oman

The 2009 Trachoma Informal Scientific Workshop was held on 17 July 2009 at WHO headquarters, Geneva, Switzerland and was attended by 25 trachoma scientists. The Workshop assessed a number of presentations as follows.

- A one-year follow-up study undertaken in patients after surgery using the bilamellar tarsal rotation procedure in a population in the United Republic of Tanzania showed rates of postoperative granuloma of 6.7%, margin abnormality 23.0% and TT recurrence 14.7%. Workshop participants highlighted the need for consistent training, certification and supervision of TT surgeons and adequate patient tracing to permit surgical audit.
- Field test of a new clamp for use in the bilamellar tarsal rotation procedure is still under way but final evidence of the advantage of its use has not yet been given. There is currently considerable variation in surgical procedures in different countries and the introduction of any new equipment must therefore be accompanied by adequate training and supervision.
- Field-testing of a point-of-care dipstick has not demonstrated the product to be operationally sound, and there is no expectation that a dipstick will be available in the foreseeable future. Evaluation of antibiotic treatment still relies on grading for clinical signs of follicular trachomatous inflammation (TF) and intense trachomatous inflammation (TI).
- A study suggested that high coverage with azithromycin (>90%) led to substantial reductions in the numbers of results that were positive in a test for chlamydial DNA using the polymerase chain reaction (PCR).
- A study showed that frequent and intensive use of azithromycin in trachoma-endemic populations did not decrease the susceptibility of pneumococci in nasal secretions to penicillins.
- A study on the natural history of trachomatous scarring indicated that poor environmental conditions had an effect, but there was no conclusive evidence worth sharing.
- There is renewed interest in investigating the pathogenesis and consequences of trachomatous scarring using confocal microscopy.
- Evidence-based decision-making, strong political commitment and leadership, stability, and effective use of human resources have been important factors in the success of trachoma control in Oman, which is now close to eliminating blinding trachoma.

Discussion

Surgery. Some 8 million people currently need TT surgery, so there is an urgent need to scale up surgery programmes and assure the quality of surgery. Failure, recurrence and complications depend on the quality of the original surgery. In the Tanzanian study, which looked mainly at how procedures might be standardized, there was no follow-up to assess the quality of surgery, a frequent problem in remote areas, and it is difficult to distinguish the true rate of recurrence. However, the procedures being used were far from ideal and efforts are under way to retrain, certify and supervise the TT surgeons. Good training requires skilled trainers – not every good surgeon is necessarily a good trainer – and careful evaluation and follow-up of trainees. Cascade training loses energy, precision and quality, and is not recommended. As for all human resources development, training should focus on performance improvement. TT surgeons may not operate frequently, which does not help their skills when there is no supervision. Recertification may therefore be needed after two to three years. In the field, surgeons can often feel isolated, and unsupervised surgery risks producing more harm than good. TT surgery uptake has been found to increase when TT surgery is offered at cataract camps, rather than at camps just for TT. Performing surgery at the community level rather than referring patients can reduce cost and fear and improve compliance. Patients need to have confidence; the procedure is not always explained adequately and there may be confusion regarding the potential with that for cataract surgery. TT surgery project proposals should therefore include information on surgery training and supervision, and surgical audit including follow-up of patients after one year. Further guidance on surgical techniques, including the use of clamps, is needed. The International Council of Ophthalmology Bahrain Declaration on Trachoma and Trichiasis Surgery,¹ adopted in March 2009, sets out the importance of attention to detail on surgery. A WHO manual entitled “Final assessment of trichiasis surgeons”² is available in English and will soon be available in French. When reporting surgeries on the WHO trachoma data forms, recurrences should be reflected.

Dipstick. Evaluation of the rapid point-of-care test for ocular *Chlamydia trachomatis* in Gambia and Senegal at sites of high prevalence showed low specificity associated with

¹ Available at www.icoph.org/pdf/ICOTrachoma.pdf.

² Available at www.who.int/blindness/publications/INSIDE%20WHO-PBD-GET-05-2-Certification%20Trichiasis%20Surgery%20manual.pdf.

high temperature, low humidity and dust. The current test is therefore not suitable for settings where trachoma is found and requires adaptation. Should such a test become available, its use in surveys would entail additional staff training and the value of the information it would provide over and above clinical signs is of no great benefit.

PCR results. In the study examined, follicles disappeared in 75% of treated subjects after 8 weeks (after 4–8 weeks clinical assessment will generally show 80–90% with <5 follicles), and 73–75% had <50 copies of chlamydial DNA (90% after 1 year in clean children). However, if dead bacteria are present the PCR result will be positive so that a positive result may be obtained for up to 2 months after clinical resolution. Clinical assessment therefore remains an important tool in control programmes.

Pneumococcal susceptibility to penicillin. A study was conducted in Ethiopia and was a planned secondary analysis of a study looking at the feasibility of eliminating ocular *Chlamydia* through the frequent treatment of children. Children in 12 villages were treated with oral azithromycin at 0, 3, 6 and 9 months, with coverage of 88–95%. Nasopharyngeal swabs were taken from 10 children from each of the randomized clusters (120 swabs) at month 12, after four treatments. The intensive use of azithromycin was not associated with any change in susceptibility to penicillins, the drugs used to treat pneumococcal disease. The study did not look at azithromycin susceptibility in *Chlamydia*, which is difficult to culture.

Research topics. The Alliance does not manage a research budget. In previous years the Scientific Workshop has given priority to considering research being undertaken on identifying the causes of TT (confocal microscopy) and best time to provide surgery to reduce the risk of corneal opacity, plus the best methods for managing the various components of the SAFE strategy, especially “F” and “E”. Research is needed: on how best to manage trachoma control programmes in accordance with the SAFE strategy and to obtain the necessary epidemiological information within integrated programmes for the control of neglected tropical disease; to guide programmes at country level, for example on thresholds for stopping antibiotics treatment, and optimal survey interval requirements; on tools for easier diagnosis and decisions about when to treat with antibiotic combinations and acceptable co-administration; and on behaviour-change strategies to improve surgery uptake and personal hygiene.

Impact survey timing. In the absence of reliable data, the guidance of an earlier WHO technical expert group was to treat trachoma when warranted for at least three years and then re-assess the situation. However, circumstances vary very much and provided a

standard recommendation need to be carefully known and understood. Timing depends partly on prevalence: if the baseline prevalence was 12%, mass drug administration for two years may be sufficient before examining treatment with antibiotics at lowest geographical level (from district to village or to families); if it was 60%, administration of antibiotics for five years may need to be planned. Antibiotic coverage, age of treatment and the presence or absence of “F” and “E” interventions are also key factors. Population based epidemiologic assessments are expensive and time-consuming and trachoma rapid assessments can be employed to provide a quick intermediate guide to the progress of trachoma control. Trachoma can be complicated and expensive to map, although the Carter Center has conducted district-level surveys relatively quickly for around US\$ 5000 per survey.

Countries where trachoma control progress is slow. Countries must take advantage of the presence of their representatives at Alliance meetings to make contacts and secure partners willing to help. They must demonstrate political will and follow-up by their ministry of health to convince donors of their commitment, and work to set AIOs and UIGs as soon as possible. WHO and other Alliances partners can provide support through their respective country offices.

5. THE NEW INTERNATIONAL TRACHOMA INITIATIVE

Dr Danny Haddad, Director, International Trachoma Initiative, The Task Force for Child Survival and Development, Decatur, GA, USA

In 2006, the Board of ITI decided that in order to scale up to achieve GET 2020 it needed to evolve a new operating model. A number of different options for restructuring were proposed and, at the end of 2008, it was agreed that ITI would in future be housed within The Task Force for Global Health (previously known as the Task Force for Child Survival and Development), a nongovernmental organization based in Georgia, USA. ITI is the Task Force’s tenth public health programme.

The merger process included an advisory meeting of trachoma experts in February 2009, an informal focus group discussion with participants in the Carter Center review meeting at around the same time, and a stakeholders meeting in March 2009 to discuss the reports of the first two meetings. It was agreed that the most

important roles for ITI were: to coordinate the supply chain for azithromycin (Zithromax) donated by Pfizer Inc.; to be a primary advocate, in collaboration with other partners, at the global, regional and country levels for the elimination of blinding trachoma; and to be a key partner in trachoma knowledge management, ensuring dissemination of information to countries.

ITI opened its office at the Task Force on 1 April 2009, with a new small team comprising Danny Haddad, Director; Lisa Rotondo, Associate Director; P.J. Hooper, Project Manager; Vivian Singletary, Supply Chain Manager; and Edward Nyankson, Accountant. ITI will continue to collaborate with other trachoma partners. It has a strategic advantage in the “A” component but is committed to the SAFE strategy and will seek inclusion of all components in national plans. Work is therefore under way to see how ITI can best facilitate the management and delivery of drug donations.

ITI’s key priority will be to ensure that azithromycin is distributed to countries in a timely manner and in the forecast quantities, and to strengthen the infrastructure for forecasting, the supply chain, distribution and delivery. ITI hopes that its more transparent operating model will result in more effective collaboration with countries and partners. It will continue its membership of ICTC and is committed to providing technical support to countries in evaluating progress towards the elimination of blinding trachoma and in the strengthening of national trachoma task forces, which are a key element in trachoma control partnerships.

The immediate priorities are to ensure timely delivery of the 2009 donations of azithromycin and to refine the new application form for donations from 2010 onwards. To that end, a meeting, facilitated by WHO, was held with national coordinators and international partners on 18 July 2009 at WHO headquarters, Geneva, Switzerland. New applications will be considered by the ITI Trachoma Expert Committee. The Committee, to be composed of experts in trachoma and all the SAFE components, will also play an important role in decision-making and in determining strategic directions for ITI.

Pfizer: renewed commitment to donate azithromycin

In a video message to the Alliance from senior management, Pfizer Inc. renewed its commitment to continue the company's donation of azithromycin, through ITI. Pfizer's partnership with ITI has long been a cornerstone of its corporate responsibility activities, and the company regards it as a privilege to work with so many other partners through the Alliance. Pfizer looks forward to working with existing and new partners in scaling up antibiotic distribution in programmes using the comprehensive SAFE strategy until blinding trachoma is eliminated.

Discussion

The new ITI. Participants welcomed the new ITI team, the clearer structure and the news that ITI will continue to promote the full SAFE strategy implementation. Although ITI has mainly worked at the global and national levels to date, it hopes to engage at the regional level, perhaps through regional or subregional meetings to discuss common and cross-border questions. In support of health infrastructures, ITI will focus on strengthening the drug supply chain, looking at coordination of donations, storage, expiry date management and coordination of donations.

Country-level support. Existing ITI country offices will remain open to the end of 2009. ITI will conduct a review to assess the situation country-by-country and determine the best operating model in each case. In some cases this will be through a country office, in others ITI support may be provided through the ministry of health or another nongovernmental organization, depending on needs. Of 16 countries currently benefiting from azithromycin donation through ITI, five have ITI country offices. In the past four years WHO has allocated 80% of its regular budget to countries through the WHO country offices. There is a country cooperation strategy for each country and ministries of health determine how best to use the funds according to national priorities. WHO can also help with advocacy for trachoma control funding.

Azithromycin donation. Pfizer's renewed commitment was welcomed but concerns were expressed that the necessary quantities of the drug might not be available for all applicants in 2009, especially given recent survey results indicating more trachoma in

areas of Sudan and Ethiopia. ITI is trying to distribute the antibiotic equitably and prepare better forecasts for future years. It is also working with partners, for example through ICTC, to ensure that antibiotic treatment is done together with the other SAFE components – each partner using its comparative advantage.

Azithromycin formulations. In addition to azithromycin for oral administration, azithromycin eye drops are being developed by Laboratoires Théa. Tetracycline ointment has proved difficult to use in hot climate and the need for two doses per day for six weeks makes compliance more difficult.

Integration with neglected tropical disease programmes. One of the challenges is to ensure that the functions of national trachoma task forces are not lost when the task forces are subsumed in integrated task forces.

6. STATUS OF TRACHOMA CONTROL IN SELECTED COUNTRIES

6.1 Morocco: surveillance for blinding trachoma and celebrating attainment of ultimate intervention goals

*Dr Jaouad Hammou, Chief of Services, Ocular and Otological Diseases,
Ministry of Health, Rabat, Morocco*

Morocco implemented the SAFE strategy from 1997 in the five trachoma-endemic provinces (1866 villages). Partners in trachoma control efforts included the Hassan II Foundation for Ophthalmology, the International Agency for the Prevention of Blindness (IAPB), ITI, Helen Keller International, Lions Club International Foundation, Pfizer Inc., WHO, the Ministries of Health and of Education, the National Drinking-Water Office and the local authorities in the five provinces. A 2005 community-level survey indicated attainment of UIGs, and a celebration to mark the occasion was held in November 2006. A further plan of action has been launched for the period 2006–2009. Morocco is currently moving into the certification process and plans to continue specific surveillance beyond certification to ensure that there is no trachoma resurgence.

The plan of action for 2006–2009 aims at consolidation of prevention of blindness activities: evaluation and follow-up; and a national initiative for human development, in collaboration with existing partners, to reduce poverty, vulnerability and social exclusion. It also includes a special system of epidemiological surveillance for active trachoma and TT during the pre-certification phase, developed in collaboration with WHO and ITI. In addition, a Ministry of Health national action plan 2008–2012 envisages the formulation and implementation of specific national programmes for disease prevention and control to reinforce communicable disease control, to combat noncommunicable diseases, and to improve access to and equity in health care.

The surveillance system includes active and passive sentinel epidemiological surveillance for TF, and annual door-to-door case detection for TT. After validation of the protocol and appropriate training, the system was implemented, with evaluation planned one year later. Any trachoma case found (two visits per year) triggers a survey of the family and community, and treatment and additional screening as appropriate. TT cases and surgeries are logged and any refusals are revisited for three times and have to declare refusal before a witness. All findings are recorded and reported and the national technical committee meets periodically to assess the situation. Data are now available for the years 2007–2009 for all five concerned provinces. The TF prevalence rate in children aged 1–9 years is currently <0.5% in four provinces. TT cases are becoming fewer and are mostly found in remote areas. Because of cost and the reduction in cases, TT surveillance coverage has fallen.

Strengths of the trachoma control programme include the successful implementation of the SAFE strategy, good coordination mechanisms, good epidemiological data, availability of adequate human resources, the implementation of the special surveillance system for the later phases and the support of WHO and IAPB Italy. Weaknesses include rising costs in the face of reduced funding, and personnel fatigue leading to staffing instability. The successes are threatened by the fact that the effects of chronic disease can remain hidden at the community level, by the need to sustain the “F” and “E” components to ensure that gains are consolidated, and by the potential withdrawal of interest among decision-makers, professionals and partners. Political will, the national initiative for human development, launched and supported by His Majesty Mohammed VI, King of Morocco, the Ministry of Health 2008–2012

action plan, and participation in Vision 2020 all provide opportunities for further progress.

The surveillance system has been evaluated by an expert committee, which also considered the certification process and the post-certification phase. The data collected in the 2009 epidemiological survey indicate that trachoma is no longer considered to be a public health problem in Morocco. TI is not present in children aged 1–9 years. The data for 2007–2009 provide the necessary information for surveillance of trachoma and Morocco has applied to WHO for certification that it has succeeded in eliminating blinding trachoma.

6.2 Ghana: ultimate intervention goals attained

Dr Oscar Debrah, National Coordinator, Prevention of Blindness Eye Care Unit, Ghana Health Service, PMB Ministries, Accra, Ghana

In 1999, trachoma was considered to be restricted to the 18 districts (now 26 districts following administrative changes) of the Northern and Upper West Regions of the country. Dracunculiasis was also prevalent in those areas. An epidemiological survey was conducted in five districts in 1999–2000 and the SAFE strategy was launched in those districts in 2001. Baseline prevalence surveys were conducted in one additional district in 2002 and in the remaining 12 districts in 2003.

In 2003, the prevalence of TF in children was >10% in four districts, 5–9.9% in five and <5% in the remaining nine (range 2.8–16.1%). Prevalence of TT in adults aged >40 years was 5–10% in one district, 1–4.9% in eight and <1% in nine (range 0.4–8.4%). Facial cleanliness was observed in 67% of children aged 1–9 years. Fewer than 2% of households in endemic areas had latrines.

A five-year strategic plan was launched in 2005, and district-wide antibiotic distribution was started in five districts. The plan set a target date of 2010 for the elimination of blinding trachoma and was to be implemented through an intersectoral approach involving the Ministry of Health, the ministries responsible for education, environmental health and women's and children's affairs, and multilateral and nongovernmental partners. Its objectives were to operate on 12 000 TT patients by 2009, to expand antibiotic distribution to cover communities with a TF prevalence of

5% or more by the end of 2006, and to ensure that at least 80% of children aged 1–9 years in endemic communities had clean faces by 2009. The plan also aimed to provide access to at least one source of safe water in each community and increase coverage with and use of latrines from 1% to 12% by 2009, with intensified advocacy for the provision of 1000 boreholes, five small-town water systems and 25 000 household latrines in endemic communities by 2009. Activities were conducted to raise awareness about TT and availability of surgery and to identify and register people with TT. Ophthalmic and general nurses were trained as TT surgeons, and surgery and follow-up were offered free of charge in communities and health facilities.

The UIG for reduction in TF required the administration of at least three rounds of antibiotics treatment once a year to around one million people. Azithromycin was distributed on a house-to-house basis by trained health workers and volunteers, using lymphatic filariasis control registers where available, with follow up by health workers to monitor for adverse effects. Facial cleanliness was promoted through health education and screening at the community and household levels and in schools.

An impact assessment survey in all 18 districts and a mid-term review of the strategic plan were conducted in 2007–2008. These indicated that 4359 people had received TT surgery, leaving a further 5000 requiring surgery, and 3.5 million doses of azithromycin had been distributed in three to six rounds depending on prevalence of trachoma, with a coverage rate of >80%. The prevalence of TF in children aged 1–9 years had fallen to <5% and mass antibiotic distribution therefore ceased at the end of 2007. Clean faces (No eyes of nose discharges) were observed in 85% (75–97%) of children aged 1–9 years. Environmental improvement had included the construction of more than 2000 safe water sources and 12 000 latrines, the latter through community-based action; 79% (65–96%) of communities had a safe water source within a walking time of 30 minutes. An epidemiological survey conducted in 2007 to check the Upper East Region showed that trachoma was not present in that area.

Ghana is grateful for the support it has received from many national and international partners which accompanied the elimination campaign of the Ministry of Health. However, there are still some years of work ahead prior to certification as free from blinding trachoma, and partners are urged not to stick to their commitment to help until the goal is reached.

Discussion

Follow-up action. Ghana was congratulated on the attainment of UIGs in a relatively short period. Interventions in respect of the “S”, “F” and “E” components are continuing. A new two-year programme is under way to meet the backlog of TT surgeries. As in other trachoma control programmes, around 60% of remaining TT cases will be in women aged >65 years so that group will require specific targeting. Nongovernmental organizations have promoted the construction of water sources and latrines, and district assemblies have promoted household latrine construction. Health education has succeeded in raising awareness of trachoma to a high level, which has stimulated the improvements. A workshop on the future surveillance system required will be held in November 2009, with technical support from WHO/PBD. Surveillance should be continued in order to detect any villages (communities of 1000–3000) where active trachoma is still >5%.

Infrastructure. Ghana’s primary health care and primary eye care services include district hospitals, with an ophthalmic nurse and ophthalmological outreach services, and public health nurses in the community. School attendance is around 70% in the endemic regions. General development has also made progress, with a special focus on the two endemic regions, which are among the five poorest in the country, although most roads remain untarred.

Impact surveys were not undertaken until all districts had conducted at least three rounds of mass antibiotic distribution, which meant that in some areas there were six rounds. It was not felt that antibiotic treatment need could have been reduced if an impact assessment had been held after three rounds in all districts, As all components of SAFE strategy did not make same effect at the same time.

Volunteers included Red Cross volunteers and dracunculiasis control programme volunteers, and to make the effective they were given incentives to ensure compliance with assigned tasks.

6.3 Ethiopia: update

*Dr Rizita Hailu, Pastoralist Health Promotion and Disease Prevention
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Prevalence of active trachoma is high in three of Ethiopia's nine regions – Amhara 61%, Oromiya 41% and Southern Nations, Nationalities and People's Region 39% – with a national average prevalence of 40%. Around 1 million people are blind, the vast majority due to cataract. Prevalence of childhood blindness is 0.1% and vitamin A supplementation is given within the Expanded Programme on Immunization, which has a high coverage.

Ethiopia is committed to prevention of avoidable blindness. Following a national survey on blindness, low vision and trachoma, a national five-year strategic plan was launched for trachoma control (2006–2010), which is part of the strategic plan for eye care for the same period and includes regional health bureau eye care plans. A mid-term evaluation of the strategic plan conducted in 2009 indicated that there is good progress in the development of human resources and infrastructure but that disease control activities require strengthening. Trachoma control is coordinated under the national committee for the prevention of blindness by a national task force, which includes representatives from all relevant ministries and external partners.

Implementation of the SAFE strategy has been expanded to 160 of the 800 districts (*woredas*) in 2009, compared with 124 in 2008 and 55 in 2007. Around 71 000 surgeries were performed in 2008, only 40% of the AIO, but an improvement on previous years. Nearly 15 million people were treated with azithromycin in 2008, 62% of the AIO, but again a considerable improvement on previous years (6 million in 2007). The AIO for 2009 is 19 million. The government has made a commitment to the attainment of the Millennium Development Goals and has set a target of increasing by 50% the proportion of people with sustainable access to safe drinking-water by 2015. Efforts are under way to scale up provision of water supply and sanitation and to provide health education on face-washing, personal hygiene and latrine construction.

The strengths of the current programme include the existence of strategic plans and a strong infrastructure for the coordination of trachoma control and other eye-care activities. This promotes harmonization of the support provided by nongovernmental organizations. The programme is constrained by the lack of trained human and financial

resources, and by shortages of drugs, other consumables, eye-care facilities and equipment. There is no dedicated focal point for prevention of blindness at the regional level. The national survey results, the high number of health extension workers (>30 000) working at the community level, increased community awareness and participation in primary health care, and primary eye care and strong partnerships offer opportunities for further progress in the future.

Discussion

Constraints. Main constraints to the attainment of the AIOs for the “S” and “A” components include inadequate equipment in eye-care units, lack of sustained commitment of human resources for “S”, and few partners, high distribution costs and drug availability for “A”. It is important to set realistic AIOs in discussion with external partners, preferably through a national trachoma control task force and to ensure a clear assignment of duties to existing staff so that responsibilities and priorities for trachoma control are clear.

TT surgery. Progress has been made thanks to the training of 30 000 health extension workers in identifying and referring cases. Although ophthalmologists are mainly based in the capital, they do conduct outreach campaigns organized by the national prevention of blindness committee on a voluntary basis, often bringing their own equipment. Training for TT surgery is incorporated in training for cataract surgery. The recurrence rate appears to be low, so it is hoped that this is a good indicator of the quality of TT surgery; there is no certification of TT surgeons, and this constitutes a major barrier in motivating staff to stay in service as a step in their career. Patients are not educated in surgery outcomes, they confuse with cataract surgery, are discouraged and do not speak well for others to come for Surgery.

Azithromycin supply. It appears that ITI will not be able to meet azithromycin requirements for 2010, although Ethiopia think to be capable of distributing the AIO, 18 million doses. ITI replied that it has 16 countries requesting allocations and is doing its best, but there has been a huge jump in demand and Pfizer cannot scale up production quickly. Countries are requested to work with ITI to produce accurate forecasts for future years.

Indicators. Countries are requested to present district-level rather than global data.

6.4 Eritrea: update

Dr Goitom Mebrahtu, Director of Disease Prevention and Control and National Blindness Prevention and Control Programme Coordinator, Ministry of Health, Asmara, Eritrea

Vital health statistics in Eritrea have improved significantly since independence. Trachoma is being tackled through the prevention of blindness programme launched in 2004 within the partnership of few international organization at the national and regional levels. The government has set a target date of 2015 for the elimination of blinding trachoma, and is working in collaboration with local and international nongovernmental organizations, including the national blindness, women's and youth and student associations ITI.

A national blindness prevention committee was established in 2003 and a situation analysis of existing eye-care services was conducted in 2004. A strategic plan of action for the implementation of comprehensive eye-care services was developed in 2005. A trachoma prevalence survey was conducted in three endemic regions (*zobas*) in 2006 and a SAFE strategic control plan was developed and submitted for funding in 2007. A national rapid assessment of avoidable blindness was conducted in 2008. A unit to produce eye drops locally is currently under development, with support from CBM.

The 2006 survey of 34 districts showed that >70% of households had access to a permanent water source but >50% owned an animal pen in the house; and >70% did not own a toilet. The prevalence of active trachoma in children aged 1–9 years in the 19 districts where the disease was found ranged from 1.8% to 69.0%; TT ranged from 0 to 3.8%.

The specific objectives of the 2007 strategic plan were to reduce the backlog of TT by 80% by 2012 (17 000 surgeries) and increase public awareness of TT surgical services; to reduce the prevalence of TF in children aged 1–9 to <5% in three regions (>1 million treatments with azithromycin) and to survey three further regions and scale up antibiotic distribution; to increase the proportion of children with clean faces to at least 80% by 2011; and to achieve 40% household latrine coverage and usage and public awareness of the SAFE strategy. UIGs and AIOs have been set for all four SAFE components and the needs for capacity-building have been assessed. Targets have also been established for the first and second rounds of mass distribution of azithromycin.

Software has been installed for antibiotic distribution management, although infrastructure support requires strengthening at the local levels. A donation of azithromycin through ITI was requested and planned to start treatment in November 2009. The Eritrean Government has declared donated drugs, equipment and consumables exempt from import duties and will provide free warehouse facilities at national and regional levels and partial funding for internal transport. Support is required from partners for the provision of drugs, equipment and consumables.

The Ministry of Water, Land and Environment developed a rural sanitation policy in 2007 to improve water and sanitation, hand- and face-washing, food hygiene and cleanliness of the home environment. A water, sanitation and hygiene promotion project and specific policies on environmental health, water resources, school health and community sanitation have also been developed.

Challenges and constraints currently include inadequate financial support for the control of trachoma and other neglected tropical diseases, and a lack of TT surgery kits. Eritrea plans to complete prevalence mapping across the country in the near future, with support from the Fred Hollows Foundation, and to expand implementation of all four components of the SAFE strategy.

Discussion

Antibiotic administration. The distribution of the first round will take place in two times, given shipment expectations: November 2009–May 2010 (780 000 treatments) and June–December 2010 (785 000 treatments). Infants under the age of 6 months will be treated with tetracycline ointment. It was noted that, in the USA, azithromycin is registered for treatment of children aged >6 months and that for infants <6 months the Centers for Disease Control and Prevention recommendation is to use azithromycin if indicated, e.g. for pertussis prophylaxis. Moreover, it has had no adverse effects in that age group in the past two years in a treatment programme in Northern Territory, Australia when followed-up at 2 weeks and 2 months. In the USA, the drug is also recommended for treatment of chlamydial infection in pregnant women.

Latrine construction. Latrines should be assessed for susceptibility to seasonal flooding and counting of latrines should take that susceptibility into account.

6.5 United Republic of Tanzania: update

Dr Edward Kirumbi, Acting National Eye Care Coordinator and Senior Medical Officer, National Eye Care & Onchocerciasis Control Programme, Ministry of Health and Social Welfare, Dar-es-Salaam, United Republic of Tanzania

Trachoma is considered endemic in 50 districts (now 54 districts following recent administrative restructuring) and 13.8 million people are at risk of infection. Some 2 million children aged <10 years have active trachoma and 167 000 people aged ≥ 15 years have TT.

Trachoma control efforts using the SAFE strategy have been supported by ITI since 1999, and district-wide mass treatment with azithromycin, began in 2004. A baseline survey in 2004–2006 showed that TF prevalence in children aged 1–9 years was >10% in 43 districts (average 25.4%; range 10–69%); prevalence of TT in people aged ≥ 15 years was 2.7%. Clean faces were found in 60% and latrine use was 47%. In addition to relevant ministries and regional administrations and district councils, many international partners were involved in implementation of the various components of the SAFE strategy.

The national trachoma control programme strategic plan for 2004–2008 has the goal of reducing blindness due to trachoma in all endemic districts through implementation of the SAFE strategy at the community level by 2008. Strategic objectives for 2008 were to reduce the TT backlog by 80% and to achieve 80% coverage of the target population for mass distribution of azithromycin.

Coverages for TT surgery and antibiotic distribution declined from 77.8% and 90% of the AIOs respectively in 2005 to 20% and 36% in 2008. Coverage for face-cleaning was 100% throughout that period, while coverage for environmental targets ranged from 65% to 68% for 2005–2007 but declined to 40% in 2008. The declines in coverage are attributed to difficulties at the district level, in particular in relation to allocation and release of funding for trachoma control activities.

By July 2009, 15 of the 43 treatment districts had completed three rounds of mass antibiotic distribution and were ready for an impact survey. However, six had very low coverage or prolonged distribution intervals and a fourth round is planned in those districts. Two rounds have been completed in a further 14 districts and one round in

eight; six districts have yet to start the first round. The target population for 2009 is 8.5 million in 28 districts.

A baseline survey has now been conducted in all 50 endemic districts and, by the end of 2009, the SAFE strategy should be implemented in all 50. Activities to control trachoma are being integrated with those to control other neglected tropical diseases. Fundraising for organising TT surgery camps is under way and there is a sound public-private partnership. The “E” component is being partly addressed through the community empowerment project for trachoma control, funded by the national Foundation for Civil Societies, and by government and private-sector initiatives for the attainment of the Millennium Development Goals. However, despite intensive advocacy, there has been a shortfall in funding at district level to support mass azithromycin treatment, which has reduced coverage and impeded expansion to all 50 districts. For the six districts yet to start distribution, funding has so far only been confirmed for three. It has also been difficult to mobilize funding for an impact survey in districts that have completed three rounds of antibiotic distribution. Human resources are inadequate at all levels. Although a grant from USAID, through APOC, has been received, budget allocations for the control of neglected tropical diseases are low and do not cover TT surgery outreach services. Funding prospects should improve with the integration of control of neglected tropical diseases together with the availability of basket and council funds in some districts. Political stability and political commitment to trachoma control activities are matched by support from external partners. The AIOs for 2009 are 4000 TT surgeries, distribution of 8.5 million antibiotic treatments, 20.7 million information, education and communication (IEC) activities to promote face-washing, and construction of 60 000 new latrines. The target date of 2020 for the elimination of blinding trachoma from the United Republic of Tanzania is still considered feasible.

Discussion

Antibiotic distribution. The integration of control of neglected tropical diseases includes five diseases for distribution of treatment/prophylaxis: lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminths. The USAID grant of US\$ 700 000 given in March 2009 through APOC and distributed to five regions can only be used for drug distribution, so the “S”, “F” and “E” components are not going to benefit. The Ministry of Health is therefore aiming to strengthen the national trachoma

task force and to seek partners for the other SAFE activities. It is optimistic that the situation will improve in 2010. Despite intense advocacy in earlier years, eye-care, including trachoma, is not being given high priority and funding is declining.

HIV/AIDS, tuberculosis and malaria control are getting the majority of the resources available. There was a fall in antibiotic coverage due to a cut-off of supplies through ITI in 2006–2007 and importation of azithromycin has been subject to delays. If external support and antibiotic distribution decline, however, there is likely to be a resurgence in active trachoma, so it is vital to plan carefully for 2010–2020.

Impact survey. The country has no money for surveys and, in the absence of data, is planning to continue drug distribution. The ITI country office and the prevention of blindness committee are disusing with the Ministry of Health for identifying ways to fundraise.

Partnerships. The programme has a good model of public-private partnership. Partners, including the WHO country office, are involved in two forums, the national prevention of blindness committee and the national trachoma task force, and provide technical expertise and advice on capacity-building and coordination as well as funding. World Vision was also involved in trachoma control in the United Republic of Tanzania from 1999 to 2004, with funding from the Conrad N. Hilton Foundation.

7. INTEGRATED APPROACHES TO THE CONTROL OF NEGLECTED TROPICAL DISEASES: LATEST DEVELOPMENTS

Dr Lorenzo Savioli, Director, Neglected Tropical Diseases, World Health Organization, Geneva, Switzerland

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The Japanese (Hashimoto) initiative on infectious diseases presented at the meeting of G8 countries in Okinawa in 2000 was somewhat ahead of its time and did not received much attention because of the priority being given to the establishment of the Global Fund to fight AIDS, Tuberculosis and Malaria. However, since then, the

profile of neglected tropical diseases has risen significantly. The 2003 Economic Report of the United States President to Congress noted the impact of absences from school, especially as a result of illness such as that due to infestation with parasitic worms, on educational achievement and earning capacity later in life. Eventually in February 2008, the then United States President, George Bush had committed US\$ 350 million for the period 2009–2013 to provide integrated treatment of neglected tropical diseases through USAID. A paper on neglected tropical diseases for discussion at a meeting in May 2008 convened by the United Nations Secretary-General and The Elders and hosted by the Carter Center gave rise to a number of options for action. That was followed later in 2008 by a pledge of £50 million from the United Kingdom Department for International Development, funds that have already started to be disbursed. The G8 meetings in Hokkaido in 2008 and L'Aquila, Italy in 2009 included neglected tropical diseases on their agendas. In 2009, the United Nations Economic and Social Council held a special event that included a panel on raising the profile of neglected tropical diseases, marking a shift from the health to the development arena for attention to these diseases in relation to the Millennium Development Goals. Also in 2009, United States President Obama pledged a further US\$ 63 billion over the period 2009–2014, some of which would be for the elimination of some neglected tropical diseases.

Making a case for fighting the neglected tropical diseases together through an integrated approach should bring the greatest benefits for each constituency. Countries should therefore prepare comprehensive national plans. Among the options for action on control noted by the United Nations Secretary-General is the establishment of a partnership for the procurement of essential medicines in order to achieve 100% coverage in endemic counties by 2012. WHO will make efforts to support that initiative in order to serve Member States better, although it will be a complex process, as the operation of the Global Fund has indicated.

WHO support for the expansion of activities to control neglected tropical diseases includes the convening of global thematic working groups on various aspects of operational and strategic issues: access to essential medicines of assured quality (donated and non-donated) for neglected tropical diseases; monitoring and evaluation of neglected tropical disease control; and anthelmintic drug efficacy monitoring. The last working group, established on the recommendation of the Strategic and Technical Advisory Group, will be extended to include the drugs for the other diseases in due course. WHO is promoting the adaptation of neglected tropical disease control and

elimination strategies to WHO regional contexts, in accordance with the diseases present and the possibilities for co-administration of drugs, and organizing regional planning platforms with donors to enhance the effectiveness of resource mobilization. WHO is also supporting countries in developing multi-year, comprehensive plans of action for neglected tropical disease control and joint programmatic tools (e.g. example joint drug request forms and monitoring tools), and in soliciting and supporting the generation and updating of national epidemiological, logistic and operational data for inclusion in a global database and for use in developing standardized national plans of action in the context of a global control plan. The elements of the standardized plan of action have been established and are available online. They include: specific country information and a map; a situation analysis providing epidemiological information with maps; a description of proposed interventions; estimates of populations to be treated each year and annual drug needs; a budget summary; and future plans, including indicators for monitoring declines in endemicity. A manual entitled “Monitoring drug coverage for preventive chemotherapy” defines the terminology. The aim is to make all the information available electronically – owned by countries but visible to all partners.

Discussion

Integration. The Strategic and Technical Advisory Group has recommended maintenance of a high level of disease-specific expertise in integrated teams. Countries will need to decide how allocations for neglected tropical disease control are split between the different diseases. Collection of good quality data through the trachoma data forms is essential to ensure that trachoma receives appropriate attention and funding.

Terminology. It was noted that neglected tropical diseases have also been called diseases of extreme poverty, diseases of poor and vulnerable women and children, and diseases of neglected populations. It is certainly clear that these diseases are more prevalent in poor populations. It was suggested that the situation in Africa required immediate intervention to reduce the disease burden and that progress towards developmental goals would follow in due course.

8. INTEGRATED CONTROL PROJECTS

8.1 The Carter Center and the malaria-trachoma (MALTRA) integration project

Dr Paul Emerson, Director Trachoma Control and Co-Director Malaria Control, The Carter Center, Atlanta, GA, USA

The malaria-trachoma (MALTRA) integration project was conducted in Amhara Regional State in Ethiopia. Amhara was selected because it is a highly affected state in the country that has the highest burden of blinding trachoma in the world. In 2005–2006 the Carter Center, ITI, CBM and other nongovernmental organizations supported a national blindness, low vision and trachoma survey which showed prevalences of trachoma and TF in children aged 1–9 years of >60% and 39% respectively, and national weighted prevalences were 40% and 26%. In order to reach the 2020 target for the elimination of blinding trachoma, it is essential to tackle the most difficult areas first as these will take the longest to bring under control. However, meaningful data are essential for programme planning and it is never too late to establish a baseline to determine the situation.

The national survey drew attention to trachoma and led to an integrated zonal survey of trachoma and malaria in Amhara. The survey included 16 clusters per zone (eight districts (*woredas*), two clusters per district, 10 zones) and 25 households per cluster. The target was 160 clusters and 4000 households, with an estimated population of 19 000 screened for trachoma and 7 745 finger pricks for malaria blood films. The clusters were scattered across the region. Survey teams interviewed heads of household at home about malaria indicators and trachoma risk factors. Trained and standardized examiners were responsible for assessing clinical signs of trachoma in accordance with the WHO simplified system. The faces of children were assessed for cleanliness, and the presence of insecticide-impregnated bednets and latrines was verified by direct observation.

The prevalence of TF in the 5485 children aged 1–9 years examined in Amhara was 32.7%; zonal prevalences ranged from 12.6% to 60.1%. The prevalence of TT in the 9121 people aged ≥ 15 years examined in the region was 6.2%; zonal 2.4–10.0%. Results for the prevalences of trachoma risk factors were: unclean faces in children,

regional 25.9, zonal 3.2–74.9% (the lowest proportion was found in the zone where TF was lowest); without pit latrine, regional 75.7%, zonal 54.1–94.3%; and water source at a walking distance of ≥ 30 min, regional 25.9%, zonal 3.6–60.3%. The data were used to plan programmes based on needs – calculating what needs to be done and determining whether the resources available are sufficient, what any shortfall might be and how that might be covered.

The survey indicated that an estimated 477 000 people required TT surgery and that nearly 44.5 million treatments with azithromycin and nearly 1 million with tetracycline eye ointment were needed to treat the rural population for at least three years. Health education was required in 3000 neighbourhoods (*kebeles*) and nearly 16 000 primary and alternative schools. Latrines were required for 2.5 million households – the target for Millennium Development Goal 7 is 1.25 million by 2015. Such targets change as more information becomes available, as for example after the May 2007 census. The scale of the programme was huge and required a partnership approach, which included the federal and regional health authorities, ITI, the Carter Center, Lions of Ethiopia, and community volunteers participation. The aim was to implement all components of the SAFE strategy but work on “S”, “F” and “E” was falling behind because so much time was spent on antibiotic distribution.

In January 2008 it was suggested that a massive campaign was needed. In February, advocacy efforts with the Federal President and Minister of Health resulted in the inclusion of malaria and the MALTRA project was born. August 2008 saw the start of training of trainers and an intensive sensitization process at all levels of the health system and federal and state governments from the highest level down to the target population. In October 2008 azithromycin supplies arrived, thanks to a donation of 3 million doses from Pfizer at short notice. The first MALTRA week was held in November 2008 with administration of nearly 5 million doses of azithromycin – this compares with 8 million doses between January and October 2008. The second MALTRA week in April 2009 was combined with World Malaria Day and a further 4.5 million doses were administered.

The project involved several thousand teams of health extension workers with a local administrator and one or two volunteers on foot. Each team targeted around 1000–1500 people over the week. In addition to screening for malaria and trachoma and providing treatment, time was also spent on health education about participation, facial cleanliness and protection against the two diseases. The work of the teams was backed

by campaigns on radio and in schools and events mixing educational films with entertainment. A further MALTRA week is planned in 2010 – subject to availability of azithromycin

To the end of May 2009, the number of TT surgeries performed totalled nearly 142 000. However, there is an urgent need to accelerate surgery and improve quality if the UIG is to be attained on target. Antibiotic distribution has risen to 13 million doses annually and it is hoped to raise this to 15 million. The number of villages with ongoing health education is increasing and some 857 000 household latrines have been constructed. The project has also involved a high proportion of women. The project has shown to the Carter Center that it is essential to focus on clearly defined goals and not to get sidetracked by other causes.

Discussion

Partnerships. The participants commended the project, which shows a good partnership. They agreed on the need to attack difficult areas first. World Vision also undertook work in parts of Amhara prior to this project and succeeded in reducing TF in those areas, and a similar project has had success in Gambia with Sight Savers International, and the national eye care service.

Azithromycin supplies There is a demonstrable need for carefully plan needs of azithromycin and Pfizer is urged to work with countries to assess needs and scale up production as soon as possible..

Malaria is unstable in Ethiopia but follow-up of the project indicates a remarkable increase in bednet ownership and use and a decline in prevalence of parasitaemia from 4% to 1%. However, the latter is consistent with a non-epidemic year and the results should therefore be interpreted with caution. Efforts are under way to strengthen the health management information system and retrain health workers on reporting of malaria.

SAFE components. The project is not successful as, surgery performance remains well below target and there are almost no data on quality of surgery. As this is likely linked to lack of technical ability in handling mass surgical campaigns, India representative reiterated a previous offer to support countries in the training of TT surgeons. Unless the “F” and “E” components are implemented there will be a resurgence of trachoma if mass antibiotic distribution ceases.

8.2 The Schistosomiasis Control Initiative and blinding trachoma elimination

Dr Wendy Harrison, Deputy Director, Schistosomiasis Control Initiative, St Mary's Medical School, London, England

The Schistosomiasis Control Initiative is based at Imperial College, London and is now involved in integrated programmes for the control of schistosomiasis and other neglected tropical diseases, including trachoma, in a number of African countries with support from governments and local nongovernmental organizations and funding from RTI/USAID, the Bill & Melinda Gates Foundation and APOC. The Initiative's primary focus is on mass drug treatment.

In Burkina Faso, the existing programmes on schistosomiasis and soil-transmitted helminths and lymphatic filariasis have been integrated, and trachoma has been mapped across the entire country for an application for azithromycin donation. In Niger, where ITI was already supplying azithromycin, vertical programmes have also been integrated for maximum efficiency. A BBC television documentary on this programme has proved a useful advocacy tool. The Initiative's work in Burundi focused on schistosomiasis, soil-transmitted helminths and onchocerciasis, but informal surveys showed a high prevalence of trachoma so formal mapping is now under way for an application for azithromycin donation. In the United Republic of Tanzania, assistance is being provided for a school-delivery programme for praziquantel and albendazole and efforts are under way to integrate this with vertical programmes for lymphatic filariasis and trachoma, in particular in the five regions of the country that are currently underserved. In Uganda, the Initiative is involved in school-based delivery programmes and child health days to reach those not attending school. Uganda has been selected for fast-track attention from RTI/USAID.

Analysis of the Initiative's activities shows that mass drug administration for trachoma can be increased, as in Niger, by integrating delivery with that for other neglected tropical diseases using the same distributor network. However, there is a risk of overburdening distributors, who also require training in the other SAFE components, and existing capacity requires strengthening to ensure coordinated drug procurement,

quality control, storage and distribution in accordance with the WHO Guidelines on preventive chemotherapy. Target groups for the neglected tropical diseases are not always the same and the timing and frequency of treatments may also differ. There may be adverse reactions to drug combinations, and rumours regarding such effects can reduce community acceptance of treatment.

Strong community support and demand for disease control can be mobilized to raise awareness of integrated control activities through common messages that reinforce behaviour and environmental change. There is as yet little research on community perceptions of integrated activities but a study is under way to investigate compliance. It is important to ensure that advocacy and IEC materials contain common messages, with no discrepancies, and to include trachoma in school health materials on other neglected tropical diseases. Community sensitization should continue between mass drug administration rounds.

The inclusion of trachoma control, with donated azithromycin, should increase the cost-effectiveness of integrated neglected tropical disease control programmes, which should stimulate international donors. However, these donors have different mandates that do not always fit with the comprehensive SAFE strategy. The development of national strategic plans that include trachoma should encourage links to other sectors and aim to attract funding for TT surgery and water and sanitation activities. Lack of priority for neglected tropical diseases, the current economic crisis and donor fatigue could threaten the mobilization of financial resources. It is therefore important to highlight success stories.

Discussion

NTD control integration. While there are benefits to be gained from integration, it is important to recognize the potential difficulties and to take appropriate steps to avoid harming what has been working successfully. In Niger, for example the trachoma endemic areas were not the same as those for the integrated programme and some trachoma control activities were displaced to areas where trachoma prevalence was not so high when the new programme was introduced in 2007. Trachoma surveys were not undertaken in all districts and the new programme concentrates on mass drug administration, to the detriment of the other SAFE components. The trachoma control programme had achieved >80% coverage with antibiotics in the areas in which it was operating. However, multiple drug administration under the new programme led to

distributor fatigue and to a substantial fall in coverage. Coverage levels under the programmes supported by the Schistosomiasis Control Initiative are monitored independently. Countries must collect data and complete the trachoma data forms to provide evidence of trachoma control needs, and the SAFE strategy must be better explained to donors.

Cost-effectiveness of integration. The Schistosomiasis Control Initiative is currently conducting a cost-effectiveness study in Burkina Faso and Niger.

Adverse effects of drug combinations further work is needed to clarify the situation.

8.3 Support for integrated control of neglected tropical diseases from USAID through RTI

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Dr Dieudonné Sankara, Senior NTD Specialist, USAID NTD Control Program, RTI International, Washington DC, USA

Although the neglected tropical diseases are different in nature, they are all amenable to an annual treatment with safe drugs, and the drugs concerned have been made available through donations. This has raised the profile of these diseases and encouraged integration of their control to increase cost-effectiveness. In 2006, the United States Congress allocated US\$ 100 million over five years for neglected tropical disease control. The funding is channelled through USAID to RTI, which is responsible for managing distribution, in collaboration with its partners. The objectives are: national scaling up of control activities; documentation of models that work and do not work, the additional benefits accruing from the initiative and the sustainability of achievements; and advocacy to encourage national governments and other partners to join these efforts. RTI supports national ministries of health through nongovernmental organization partners with the necessary technical expertise for the implementation of programmes. The programme is now helping 12 countries and activities have resulted in the treatment of 38 million people with 133 million administrations of antibiotics and the training of 220 000 staff. The value of donated drugs in year two alone totalled US\$ 590 million.

The successful results from countries helped by the initiative have maintained political interest in this area and, as indicated earlier in the meeting, in 2008 President Bush announced a further allocation of US\$ 350 million for 2009–2013 for integrated control of neglected tropical diseases. Moreover, in 2009, President Obama included priority for neglected tropical disease control in the country's global health priorities, so that further funding will become available.

In addition to facilitating mass drug administration, the USAID programme is compiling evidence of best practices, and is influencing global and national policies, which is helping to mobilize further resources, for example through the G8 countries (from the United Kingdom and Japan), through partnership with the pharmaceutical industry, and in the endemic countries themselves. It is also helping to ensure the sustainability of control efforts. The objectives of the various donors do not always coincide, but USAID is working with ministries of health work to collaborate with the donors in an integrated manner to maximize efficiency of effort and impact, and to ensure transparency in the use of funds, especially as the enhanced funding becomes available.

Of the 12 countries currently being helped by USAID, 10 are endemic for trachoma. The programme has contributed to the collection of evidence-based data on blinding trachoma in Mali (with support from the Carter Center and Helen Keller International), Uganda (Carter Center, Sight Savers International, Niger (Carter Center, Schistosomiasis Control Initiative), Sierra Leone (Helen Keller International, Sight Savers International), Burkina Faso (Carter Center, Schistosomiasis Control Initiative) and Southern Sudan (CBM, Malaria Consortium). Funds have been provided to support the delivery of the "A" component of the SAFE strategy in participating countries endemic for trachoma, including scaling up in Uganda, Burkina Faso, Niger and Mali. The programme has collaborated with the Carter Center, Helen Keller International and the prevention of blindness programmes in Mali and Niger to strengthen country drug management, to improve the uptake and quality of TT surgery and to tailor IEC messages. It is also collaborating with ITI. The programme is encouraging the collection of district-level data and monitoring of progress towards the UIGs. With careful planning, the "A" component can be used as a platform for service delivery for the other SAFE components, including TT detection and referral and integrated IEC, as a basis for cross-sectoral collaboration, and to increase the visibility of trachoma control in neglected tropical disease control activities.

9. REPORT ON THE WHO MEETING ON POST-ENDEMIC SURVEILLANCE FOR BLINDING TRACHOMA

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Countries applying for certification as free from blinding trachoma as a public health problem are required to provide evidence of surveys that: justify the cessation of mass treatment/targeted treatment/treatment campaigns as the UIG is achieved, i.e. when TF falls to <5%; and document sustained prevalence of TF at <5% in children aged <10 years. They must also show that the health system is capable of conducting trachoma surveillance and providing the necessary treatment or surgery and follow-up and that public health surveillance, reporting and case/outbreak management systems are operational.

In response to requests from Member States for further guidance, WHO convened a meeting in November 2008 to consider trachoma surveillance in countries following the achievement of the UIGs. The meeting reviewed the principles of surveillance and the experiences of countries currently conducting surveillance (Morocco and Oman). It also considered the feasibility of establishing surveillance systems in countries with least developed health systems and the formulation of minimum requirements for surveillance.

Public health surveillance comprises the ongoing systematic collection analysis and interpretation of health data essential to the planning implementation and evaluation of public health practice closely integrated with the timely dissemination of the data to the relevant decision-makers for use in ensuring effective disease prevention and control activities, which feed back into the surveillance system. It follows that a surveillance system must have the capacity for data collection, analysis and dissemination linked to public health programmes.

The goal of GET 2020 must be remembered, is elimination of blinding trachoma as a public health problem and not eradication of *Chlamydia trachomatis*, so that a low

level of active trachoma can be tolerated. Trachoma is currently identified by direct clinical recognition. Trachoma surveillance need not be frequent as it does not have the same urgency as surveillance for certain other diseases, poliomyelitis for example, since re-emergence appears to be slow. However, as all public health activities, it must be planned in advance, during active implementation of trachoma control, so that it is in place once the UIG is achieved – preferably being introduced gradually, district by district, as trachoma is eliminated.

The objectives of trachoma surveillance are to monitor TF status to determine whether there is resurgence and to respond as necessary; and to ensure that eye-care services are identifying and operating on cases of new and recurring TT to detect any increase in blinding disease. The meeting agreed that, to meet the minimum requirements for the first objective, two communities of 1000–2000 persons per district should be selected and surveyed each year, with a bias to “difficult areas” i.e. the least developed and suspected formerly most endemic. If the district has a population of >200 000, four communities should be selected. The communities should be rotated yearly. In each community, all children of school-entrance age (i.e. 5–6 years where school attendance is >90% with no gender bias, or a minimum of 50 children of the same age in each community giving a total of at least 100 children; if feasible all children of that age) should be examined for active trachoma. There should be a planned response for any community where the prevalence is >5%: all children aged 1–9 years should be examined and TF cases and families should be treated. If prevalence is >10%, trachoma control measures must be reintroduced: treatment for communities and assessment of the “F” and “E” components, and survey of neighbouring communities. If prevalence is >10% in surrounding areas too, “A”, “F” and “E” activities should be reintroduced for three years and further subdistricts and districts should be assessed as indicated.

To meet the surveillance objective relating to TT, countries should collect and review TT surgical data and incorporate the surveillance into the national health information management system. In the communities assessed for TF, all adults aged ≥ 40 years should be examined for TT and cases should be recorded as new, recurrent, refused surgery or previously unknown to the health system. In response to the finding of new and previously unknown cases, countries should review case-finding procedures in communities, renew activities to enhance surgical coverage and increase the frequency of monitoring.

Countries should provide evidence of the quality of their surveillance. Routine district surveillance reports should be received by a national body in a timely fashion – quarterly initially, less frequently if performance is satisfactory. Outbreaks should have been investigated promptly and follow-up procedures instituted. Data analyses should be conducted at the district level, where action plans are formulated and initiated. The national trachoma committee should assess the validity of reports regularly in the first three years and then annually. Spot checks should be carried out if no cases are reported. If prevalences of >5% are reported but no action has been taken further investigation is needed.

Surveillance should be planned and tested ready for implementation in districts immediately following evidence by survey of the achievement of the UIGs, even if other districts have still active control programmes. The surveillance should be continued for three years, followed by a repeat survey to ensure sustained reduction of TF and sustained TT management. Surveillance activities should be maintained thereafter to provide assurance that active trachoma is not re-emerging undetected and that when it does occur it is being managed, and that TT is being satisfactorily managed. By the tenth year, activities should be incorporated in the national surveillance system.

Discussion

Establishment of surveillance. Participants recognized the importance of starting surveillance early – well before achievement of UIGs. Many existing national surveillance systems do not currently capture trachoma data. Countries will therefore require support to develop surveillance, and national authorities and donors need to be convinced of the necessity for work to continue so that funds do not dry up once the UIG for TF has been attained. The importance of data collection during trachoma control activities was highlighted. It provides baseline figures, records of treatment and “F” and “E” activities, and progress towards the UIGs, which will indicate communities where there have been problems and where resurgence is likely and will therefore guide subsequent surveillance. Strengthening of primary eye care and primary health care services should also help to ensure that there is no resurgence of trachoma.

Surgery. New cases of TT may occur and the surveillance system should find and manage these, but there may also be pockets of cases not previously found. TT surgeries are counted by the number of people receiving surgery not by the number of eyes operated on. The certification requirement for TT is to demonstrate a system capable of

identifying cases, responding to any increase in incidence, and offering surgeries or recording surgery refusal. TT prevalence should be no more than 1 per 1000 population and TT should be reported as a separate line, not simply included in data on eye-disease or eye surgery.

WHO recommendations. WHO and many other partners are already providing technical support on surveillance. A report of the WHO meeting, which will provide further guidance on the establishment of post-UIG trachoma surveillance, is in preparation and will be distributed in the future. The certification framework has been sent for review to the WHO regional offices and country offices; initial comments appear to be favourable.

10. FUTURE GET 2020 MEETINGS

Participation in the Alliance annual meetings has grown considerably since their inception in 1990, and the WHO Secretariat considered it timely to review the format and presentation of these meetings. A questionnaire circulated in advance to participants in the current meeting requested comments and suggestions on their usefulness, frequency and geographical representation. The responses indicated that the meetings were considered useful: 87% considered they should continue to be held annually; 9% of country representatives considered that every two years would be sufficient. As regards representation, 57% considered it should be global, 5% preferred regional representation and 38% considered that alternation between global and regional would be more effective.

The responses indicated that annual meetings are useful because they provide the opportunity: to exchange information and learn from the experiences, good and bad, of others; to generate political support at home; and to provide country feedback to WHO. The meetings offer a global picture of progress towards GET 2020 and facilitate the building of international partnerships. They also offer national coordinators the opportunity to demonstrate to partners the potential and achievements of their programmes, encourage them to report, and empower them to return home and demand more from their national and local health authorities.

Suggestions for improvements touched on the duration of meetings, themed sessions, discussions on financing, preparatory meetings to ensure better reporting to WHO through the trachoma data forms, planning in advance for each biennium, secure funding for the meetings, distribution of reports to the World Health Assembly, compilation and distribution of reports and journal articles on trachoma on CD-ROM, and secure support for the participation of country representatives.

The participants divided into three working groups to consider further the format and content of Alliance meetings, taking into account the mandate and terms of reference for the Alliance approved by the Health Assembly. The working group findings were presented in plenary for further discussion.

Meeting framework

Most participants favoured the retention of an annual global meeting in Geneva. Regional meetings might encourage participation from countries currently lagging behind in trachoma control, but several regional meetings per year would be costly and would dilute technical expertise. Consideration should be given to organizing sessions on specific regions at the global meeting. For example, the meeting could be extended by one day, to allow concurrent regional meetings the day before the annual meeting. Summaries of the regional meetings could then be presented at the global meeting. It is not necessary for every country to report at each meeting. Moreover, too many country presentations can be tedious. However, countries attending for the first time should be encouraged to present. Selected countries should make short presentations on specific themes (e.g. a particular SAFE component, social mobilization, financing) with an agreed format, allowing more time for discussion at end of the session on each theme. Gap analysis should be included as a theme to enable donors to identify needs and consider support where it is most needed. Presentations should aim at sharing best practices. It might be useful to set aside one day for such thematic presentations, perhaps with discussions on different themes running concurrently, and to organize a round-table discussion on a specific topic between countries and partners. To maintain impetus between meetings, the Alliance should consider the establishment of working groups on specific topics that operate by conference call or electronically. International partners should provide information at each meeting on the type of support they can provide; that should include a broader presentation from ICTC.

Trachoma data forms

The annual meeting encourages the submission of the trachoma data forms to WHO. Countries should invest more time in completing the forms to ensure the provision of data of better quality: national trachoma task forces should meet and complete the forms in first quarter of the year (at least two months in advance of submission deadline) to allow more time for feedback and queries from WHO. The presentation on the trachoma data forms at the global meeting should provide a summary indicating how countries are progressing towards the elimination targets.

Meeting outcome

Recommendations arising from Alliance meetings should be sent to ministers of health in endemic countries. National coordinators should also submit a report on each meeting to their Ministers of Health, using this as an opportunity to request specific support. The Alliance should advocate for the inclusion of a session on trachoma at regional meetings of the International Agency for the Prevention of Blindness. A CD-ROM of the presentations and the final report of each meeting should be prepared and distributed.

Future action

The WHO Secretariat will consider the suggestions made and determine how best they can be accommodated. The annual meetings of the Alliance are currently preceded by a meeting of the Trachoma Informal Scientific Workshop, and followed immediately by the International Coalition for Trachoma Control and participants are already absent from their regular duties for some days. It might therefore prove difficult for some of them to attend longer annual meetings. The Secretariat will circulate proposals for consideration before the 2010 annual meeting.

11. RECOMMENDATIONS

The participants in the Thirteenth Meeting of the WHO Alliance for the Global Elimination of Blinding Trachoma by 2020 adopted the following recommendations for WHO GET 2020 secretariat and partners

1. It is essential that all endemic countries submit completed trachoma data forms to WHO by the end of February each year. International partners are urged to support this process through meetings of appropriate national bodies, preferably the national trachoma task force.
2. In order to ensure adequate production and provision of donated azithromycin, countries whose applications to receive the donation through ITI are approved by its trachoma expert committee should submit timely and evidence-based forecasts of annual azithromycin needs, and provide evidence of national distribution capacity in the context of the SAFE strategy.
3. WHO should facilitate further analysis and dissemination of the lessons learnt from the trachoma control programmes in Morocco, Oman and Ghana; and the barriers and obstacles to meeting actual trachoma control needs in Cambodia, Guinea, Nigeria, Pakistan and Viet Nam. The results should be presented at the Fourteenth Meeting of the Alliance in 2010.
4. WHO should convene a technical meeting to review recent developments in programme evaluation and relevant scientific data with a view to providing guidance on the frequency and timing of impact surveys.
5. The report of the WHO Meeting on Trachoma Surveillance should be finalized and disseminated as soon as possible.
6. The Alliance recognizes the opportunity presented by the attention to neglected tropical diseases, which include trachoma. Alliance members (countries and international partners) are recommended to participate proactively and on an equal

basis with other neglected tropical disease partners to ensure that the full SAFE strategy is part of the integration.

7. The Director-General of WHO is requested to ensure that Alliance members are equal partners in the planning and implementation of WHO's integrated neglected tropical disease control activities: presentations to the Alliance to date have not demonstrated that intent.
8. To generate evidence-based information to promote co-administration of chemotherapy for different neglected tropical diseases, studies should be conducted as soon as possible on the simultaneous administration of albendazole, ivermectin, praziquantel and azithromycin under field conditions.
9. The Alliance considers that an annual meeting is essential and recommends that WHO should continue to convene and support annual global meetings in Geneva, to be held in conjunction with meetings of the Trachoma Informal Scientific Workshop and the International Coalition for Trachoma Control. The meeting date and format should be determined by the WHO Secretariat, taking into account the comments made by the Alliance during its Thirteenth Meeting.
10. Alliance members urge the WHO leadership to work with them to ensure the financial stability of the Alliance so that it can achieve the mandate set out in resolution WHA51.11. Funding is required to support the annual meeting, including for the participation of Member States and the Secretariat.
11. The Alliance noted and endorsed the Bahrain Declaration on Trachoma and Trichiasis Surgery prepared and endorsed by the International Council of Ophthalmology and the International Agency for the Prevention of Blindness. It particularly noted the importance of proper training, supervision, certification and follow-up monitoring to ensure high-quality surgical outcomes.

11. DATE AND PLACE OF THE FOURTEENTH MEETING

It was agreed that the fourteenth meeting should take place in April 2010, at WHO headquarters, Geneva.

12. CLOSURE

With the customary exchange of courtesies, the Chairman closed the meeting.

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ANNEX 2. AGENDA FOR THE THIRTEENTH MEETING OF THE WHO ALLIANCE FOR THE GLOBAL ELIMINATION OF BLINDING TRACHOMA, GENEVA, 20–22 JULY 2009

Introduction

Nomination of officers

Adoption of the agenda

Opening speeches

- Dr Fiona Adshead, Director, Chronic Diseases and Health Promotion
- Dr Lorenzo Savioli, Director, Neglected Tropical Diseases

Agenda item 1: Review of trachoma data forms

Agenda item 2. Report on the International Coalition for Trachoma Control

Agenda item 3. Report on the Trachoma Informal Scientific Workshop 2009

Agenda item 4. The new International Trachoma Initiative

Agenda item 5. Trachoma control in selected countries

- Morocco: surveillance for blinding trachoma and celebrating ultimate intervention goal achievement
- Ghana: ultimate intervention goals achieved
- Ethiopia: update
- Eritrea: update
- United Republic of Tanzania: update

Agenda item 6. Neglected tropical diseases: latest developments

Agenda item 7. Integrated disease control projects

- The Carter Center and the malaria-trachoma (MALTRA) integration project
- The Schistosomiasis Control Initiative and blinding trachoma elimination
- Support for integrated control of neglected tropical diseases from USAID through RTI

Agenda item 8. Post-trachoma ultimate intervention goal achievement
surveillance: report on a WHO meeting

Agenda item 9. Working groups on GET 2020 meetings

Conclusions and recommendations

Date and place of the meeting

Closure
