Trachoma: Poverty affects eye health
Dear Reader,

it would be hard to find a better example of the link between vision and development than that of trachoma. Simply put, trachoma is a disease of poverty. This infectious eye disease is endemic in many of the poorest communities in the developing world, with more than 300 million people living in 53 different countries at risk. Unsurprisingly, Africa is the continent most affected, with Ethiopia carrying the largest burden.

The infection is often spread from child to child, and from child to carer, leading to women being much more affected than men. This impacts greatly on the overall wellbeing of families and helps to keep them in a vicious cycle of poverty. As part of our commitment to targeting our programmes at those in greatest need, LIGHT FOR THE WORLD has joined the global coalition to eliminate blinding trachoma by the year 2020. We are also directly scaling up our trachoma work in our partner countries of Ethiopia, South Sudan and Mozambique and we are committed to the WHO-endorsed SAFE strategy.

Trachoma must be tackled as a wider poverty-related development issue rather than simply an eye health issue in order to be effective. In endemic areas the prevalence of trachoma can easily serve as an indicator of the success of poverty eradication programmes. Sustainable trachoma interventions must also tackle the root causes of extreme poverty and its immediate effects on the socio-economic wellbeing of communities. As the article on Water, Sanitation and Hygiene (WASH) in this issue rightly points out, inclusive, community-driven approaches are essential to removing the environmental, attitudinal and institutional barriers that prevent community members from exercising their right to health and other basic human rights.

In this way, the work on trachoma aligns very well with LIGHT FOR THE WORLD’s strategic aim of an inclusive society, where all persons can participate equally in their social, political, economic and cultural environment.

We ask for your support in working towards this vision,
End In Sight for Blinding Trachoma

Global Coalition commits to Strategic Plan for Action

Dr Danny Haddad, Director of the International Trachoma Initiative

Those of us involved in the fight against trachoma are hopeful. Blinding trachoma, one of the oldest known infectious eye diseases, is facing its end game. With the global community using the new strategic plan to focus time, attention and funding, trachoma doesn’t stand a chance.

Trachoma blinds one person every 15 minutes and makes one person experience severe sight loss every four minutes. An estimated 325 million people live in areas where they can be exposed to this Neglected Tropical Disease (NTD). Repeated infections of the conjunctivae with ocular strains of Chlamydia trachomatis can ultimately lead to trichiasis and corneal opacity. Yet as a result of development and targeted interventions trachoma is now limited to an estimated 53 countries, often affecting the poorest populations.

A Global Strategic Plan for Action

In 2011, the International Trachoma Initiative worked with fellow partners in the International Coalition of Trachoma Control (ICTC) to create the first global strategic plan to end this disease. We called the plan 2020 INSight because it took a hard look at where we were, where we needed to go over the next nine years, how we could get there, and the cost and impact of finally eliminating blinding trachoma by the year 2020.

Global Mapping Underway

One of the major barriers to reaching this ambitious goal is the urgent need for data to understand the full extent of trachoma prevalence and the need for scale up of proven interventions. This can only be done with country leadership, international coordination, logistical and planning support, and adequate funding. We are pleased to report in 2013 that significant progress on our plan is underway. 2020 INSight helped define global mapping as a priority (see article on page 8) and led the UK government to fund the mapping of blinding trachoma in more than 30 countries.

A mobile phone app was developed to record and immediately share mapping data. Open access to updated disease maps is available on the Trachoma Atlas.

SAFE Strategy:

- Surgery
- Antibiotics
- Facial Cleanliness
- Environmental change

To implement SAFE, national governments and non-governmental organizations around the world are uniting like never before. Trachoma was included in the 2012 London Declaration on Neglected Tropical Diseases, an historic pledge by a diverse group of partners to work together to control or eliminate 10 NTDs that affect more than 1 billion people.

With support from donors, including significant funding from the UK government, SAFE implementation is underway in 400 districts with 950 districts needing to be added once the global mapping is complete. ITI was asked to create a model Trachoma Action Plan (TAP) and country stakeholders are using TAPs to coordinate elimination efforts. The ICTC is also developing a tool kit that will provide guidance surrounding Mass Drug Administration (MDA) and hygiene education for dissemination to partners and national trachoma programmes. Using these tools, countries will be able to increase their capacity to implement the SAFE strategy at all levels.

Open access to updated disease maps is available on the Trachoma Atlas.
Immediate Action Needed in 14 Countries

We also have the good news that nine countries with trachoma have already reported achieving their elimination targets. However, more than 80 percent of the burden of active trachoma is now concentrated in 14 countries, where immediate action is needed.

Scaling up the public health interventions described in the SAFE strategy, including antibiotic treatment with Zithromax® donated by Pfizer Inc, and improved access to water and sanitation, are the most crucial elements in the fight to stem transmission.

Trachoma control programmes must be underway by 2015 in affected countries to be sure that there is enough time to eliminate the disease by 2020. 2020 Insight lays out five guiding principles that provide a framework for ensuring progress on this path to elimination: urgency for action and scale-up; accountable ownership by countries so they can integrate actions into the national health services; integration so that trachoma focused efforts are aligned with activities for other NTDs, eye care and development strategies; efficient, coordinated partnerships with all stakeholders; and tailored interventions to meet local needs and context.

Benefits at the Human and Economic Level

Delayed action will be costly. There is the human cost that occurs with vision loss or worse, blindness – stigmatization and reclusion from society. There is the enormous economic burden of trachoma on the lives of individuals, families and communities. Even conservative estimates suggest an annual loss of productivity due to trachoma of between $3 billion and $6 billion. Eliminating blinding trachoma will clearly bring benefits at the human and economic levels.

What will it cost to achieve that elimination goal? 2020 Insight calculated that an estimated $748 million in funding is needed to fully implement the SAFE strategy to prevent and treat blinding trachoma. Eliminating the disease in Africa alone would boost the continent’s GDP 20-30 percentage points based on conservative annual productivity loss estimates. A dollar spent on trachoma control is not only well spent but yields personal and economic benefits to individuals, communities and countries. As 2020 Insight states, “The total cost is relatively small, the potential for impact enormous.”

Poverty Will Not Let Trachoma go

Communities living in extreme poverty may not take up trachoma programmes

Johannes Trimmel,
Director International Programme Support and Policies,
LIGHT FOR THE WORLD

Can you imagine a situation where blinding trachoma is eliminated as a public health problem and the communities previously affected have stayed at the same levels of poverty? I cannot.

Living in absolute poverty has several consequences at individual, family and community level. The absence of (good) services in health, education and livelihood combine with lack of awareness, and negative psychosocial effects on individuals such as loss of dignity, trust, self-esteem, meaning in life, safety and hope. This is even more evident in situations where exclusion, discrimination and socio-cultural barriers have held families and communities in absolute poverty for generations.

Offering services in such situations make a difference, but it is surely well intended, but are not necessarily the resources accessed, especially by the poorest and other socially excluded groups in communities. Research suggests that development initiatives often do not reach the poorest as their individual situation combined with socio-cultural barriers bar them from knowing of and taking up such initiatives. The comeback of (inclusive) growth and the belief in ‘value for money’ as the main drivers in international development initiatives for successful economic and social uplift are likely to increase the exclusion of the poorest people, consequently exacerbating inequity levels.

This is potentially bad news for efforts to eliminate blinding trachoma. International funds provided following such logic will hardly translate into a pro-poor, accessible and inclusive community development approach. The successful treatment of symptoms easily overrules the addressing of root causes. Concerns need to be voiced not only because of a possible exclusive focus on Mass Drug Administration, which is known not to work in isolation. It is yet unclear which approach will be taken for F and E components in SAFE comprehensive trachoma programmes. Constructing additional clean water spots and latrines does not automatically lead to a healthier environment, and a higher well-being, especially of the poorest.

The underlying “Theory of Change” to eliminate blinding trachoma might not be completely right. The question remains, whether in a situation of extreme poverty blinding trachoma can be eradicated if poverty levels have not first been changed.

Poverty has to be understood multi-dimensionally – going far beyond the economic situation to include other interlinked individual and socio-cultural factors. This poses yet an additional challenge to the “trachoma world”: to move beyond forming coalitions with organisations and initiatives in the area of water and sanitation, and join hands with those challenging the logic of the current development work on international and national levels. Changing the life of the poorest is a challenge. But it’s worth going for it – and it is a precondition to eliminate blinding trachoma.

LIGHT FOR THE WORLD INSIGHT: ETHIOPIA, SOUTH SUDAN AND MOZAMBIQUE

Ethiopia, South Sudan and Mozambique are three sub-Saharan focus countries for LIGHT FOR THE WORLD, which are also on the priority list for the 2020 INSIGHT plan of the International Coalition for Trachoma Control, of which LIGHT FOR THE WORLD is a member.

Having been engaged in Trachoma work in Ethiopia for the last 15 years, it is a logical step for LIGHT FOR THE WORLD to scale up its work and invest substantially in the efforts to eliminate blinding trachoma in Tigray and Somali regions, two provinces where comprehensive eye health has also been supported for a long time. As a first step, LIGHT FOR THE WORLD led the mapping exercise, which provided the baseline data for a longer-term intervention plan for eliminating blinding trachoma. At present, programmatic partnerships and financial resourcing are being sought to address successfully the causes and consequences of trachoma and to support communities to improve their socioeconomic status in these two provinces.

In South Sudan where the challenge might be even bigger given the recent history and the absence of comprehensive health systems, LIGHT FOR THE WORLD has agreed to act as a co-ordinating agency for the Global Trachoma Mapping Project. In its Country Strategy, launched by the Vice-President of South Sudan on 9 April 2013, LIGHT FOR THE WORLD envisages joining with the government and other NGOs to fight blinding trachoma within the framework of comprehensively managing neglected tropical diseases. LIGHT FOR THE WORLD has also committed to undertaking the trachoma mapping in two provinces of Central Mozambique and stands ready to support the regional health bureaus in Central and Northern Mozambique to eliminate blinding trachoma by the year 2020.

Development Initiatives do often not reach the poorest: a challenge for trachoma work.

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Trachoma is the most common infectious cause of blindness. It is found in poor rural communities in developing countries where access to water and sanitation is inadequate.

Repeated conjunctival infection with particular strains of the bacterium Chlamydia trachomatis produces scarring of the tarsus, which leads in some individuals to trichiasis and corneal opacity. 325 million people worldwide are estimated to live in areas where trachoma is prevalent and are at risk of going blind.

Following a World Health Assembly Resolution in 1998, there is international commitment to eliminate trachoma as a public health problem by 2020. Mapping is a critical first stage to elimination because programmes determine the need for interventions based on population-level prevalence of disease, and the geographical burden of trachoma has only been partially assessed. As of July 2012, 1,238 suspected endemic districts remained unmapped; more than half the 53 countries worldwide believed to have endemic trachoma were yet to complete baseline mapping of disease distribution.

Supported by the UK government, which has provided £10.6 million in funding, the Global Trachoma Mapping Project (GTMP) is one of the first concrete steps to implement the 2020 INSight action plan. It aims to map all the remaining suspected endemic districts by April 2015, examining a sample of up to 4 million people across more than 30 countries in the process. Led by the NGO Sightsavers, the London School of Hygiene & Tropical Medicine, and the International Trachoma Initiative, and supported by several dozen experts on trachoma, information technology, geographical information systems, and water and sanitation, the GTMP is rolling out house-to-house surveys based on World Health Organization supported principles, with a scalable approach. Collection of data on household-level water and sanitation variables is integrated with collection of data on clinical trachoma.

Data are collected using an Android smartphone app and then transferred to a cloud-based storage system, enabling rapid data cleaning and analysis. The main results – population-based prevalence data on the WHO simplified trachoma grading scheme signs “trachomatous inflammation-follicular” and “trachomatous trichiasis” – are made available via the Trachoma Atlas (www.trachomaatlas.org). These tools are enabling Ministries of Health to quickly and cost-effectively scale-up their trachoma mapping plans while maintaining very high data quality.

This ambitious project has already begun in Ethiopia and Nigeria, with mapping about to commence in Malawi, the Solomon Islands and Yemen. The completion of baseline mapping globally will be a pivotal moment in the fight against trachoma. Once these data are available and it is clear exactly where trachoma is endemic, the resources can be mobilised to enable us to eliminate it worldwide.
WASHing Away Blinding Trachoma

Health promotion should engage all community members

Helen Hamilton, Sightsavers and Yael Velleman, WaterAid

Globally, 1.2 billion people live in trachoma-endemic areas, primarily in the poorest communities in the developing world that lack access to basic services and infrastructure, and it is estimated that 41 million people, mostly women and children, have active trachoma infection and need treatment, with pre-school age children being the most at risk of infection.

Trachoma is a cause and a symptom of poverty. Improved access to safe water and adequate sanitation, and the implementation of good hygiene practices (WASH), are essential for trachoma prevention and control.

The SAFE strategy for trachoma control

We have the tools to prevent transmission of trachoma and eliminate blinding trachoma by 2020. The WHO-endorsed SAFE strategy for the control and treatment of trachoma seeks to end the infection cycle through both preventing new instances of infection and treating existing cases of trachoma and trichiasis. The SAFE strategy is comprised of four components that combine prevention and treatment efforts: Surgery, Antibiotics, Facial Cleaning and Environmental Improvements. All four elements of the SAFE strategy must be present for trachoma programmes to be successful. It is vital that the F and E components underpin treatment in order to ensure that the underlying causes as well as the symptoms of the disease are addressed to break transmission cycles and avoid the persistence of trachoma infections.

Inclusive design and service provision must be ensured to reach all community members.

Environmental improvements, in particular, are necessary across communities as lack of adequate sanitation facilities and practices such as open defecation affect not only specific households who lack facilities but the community as a whole.

The issues of trachoma, access to WASH and poverty are not only mutually reinforcing, but offer an important opportunity for a holistic approach to development that tackles the underlying causes of poverty and ill-health and targets the poorest and most marginalized populations. With the increasing pressure on government and aid resources, it is crucial that integrated approaches are implemented to deliver better value-for-money, but more crucially sustainable, long-term impact.

A healthy environment for EVERYONE

The success of both preventive and curative elements of the SAFE strategy requires that they are inclusive of and accessible to all community members including people with disabilities. Lack of access to water and sanitation can also exacerbate impairments and poverty. This is reinforced by Human Rights Council Resolution 15/L.14 on human rights and access to safe drinking water and sanitation of 24 September 2010, which calls upon States to “contribute to the provision of a regular supply of safe, acceptable, accessible and affordable drinking water and sanitation services of good quality and sufficient quantity”. In practice, this means that community WASH decision making should be inclusive of people with disabilities and health promotion activities including hygiene and sanitation promotion should engage all community members. Community-driven approaches such as Community Led Total Sanitation (CLTS) need to include discussions around the environmental, attitudinal and institutional barriers that people with disabilities face, to raise awareness for the differing needs and access requirements of people with disabilities. This can be done by using braille or audio versions of health promotion materials; ensuring health promotion activities are carried out in accessible locations; and encouraging disabled members of the community to participate in health promotion activities. Inclusive WASH may also require modification to WASH infrastructure such as latrines and wells: often this means only very minor changes such as handrails, elevated and accessible wells, or wider doorways to latrines. Inclusive WASH services benefit all community members including children, pregnant women and older people. Research has shown that the additional cost of making facilities (such as a school latrine) assessible can be less than 3% of the overall costs of the latrine.

Stepping up action

To ensure that communities at risk of trachoma receive the effective and sustainable support they need, international agencies, donors and government partners must go beyond paying lip-service to collaboration and maintain their support for the elimination of blinding trachoma by 2020 through comprehensive and collaborative implementation of the SAFE strategy. WASH aspects must be part of trachoma-control programme design, and disease-control objectives should be worked into WASH programming. All programmes must be targeted towards the poorest and most marginalized communities, and ensure inclusive design and service delivery for people with disabilities. The way in which programmes are funded should reinforce integrated approaches.

Recent disease-control successes have shown what can be achieved through collaboration; however, the gains that have been made are fragile. While risk factors such as contaminated environments, poor hygiene practices and poverty remain, trachoma can return to communities that have become disease-free through medical interventions. The fact that trachoma elimination was achieved in European countries without the use of antibiotics serves as a reminder for the need for comprehensive approaches to disease control.
Chronic keratoconjunctivitis and/or cornea and conjunctiva (trichiasis). The eyelids and lashes that rub the conjunctival scarring and inversion of lid margin, which eventually causes conjunctivitis and keratitis. Although antibiotics are effective in treating active cases of the illness, they do not prevent re-infection. Children build up a human reservoir for the spread of C. trachomatis and are the main cause for reinfection in adults, predominantly the female caregivers.

References:

In trachoma endemic countries there are huge numbers of people with Trachomatous Trichiasis (TT), which represents the painful late complications of repeated TT surgeries. The Laura Bassi Centre for Ocular Inflammation and Infection – OCUVAC – at the Medical University of Vienna has joined hands with GTM to comprehensively implement the SAFE strategy in the community.

In the Ethiopian village of Danguri farming is the main economic activity. Villagers find it hard to produce enough crops to feed their families as usually the plots of land belonging to one family are very small.
Klaas Aikes, Programme Coordinator LIGHT FOR THE WORLD Netherlands

Afghanistan is a country recovering from decades of war and instability. Even without war, Afghanistan’s geography, climate and infrastructure constitute major challenges to providing adequate care to rural communities.

Health indicators are amongst the worst in the world. WHO and the International Association for the Prevention of Blindness (IAPB), estimated the prevalence of blindness at 1.5–2.0%. Since 1966, implemented by International Assistance Mission’s – an international NGO – the IAM NOOR has successfully provided eye care in Afghanistan. IAM NOOR has always promoted some form of cost-recovery through the charging of user fees. To ensure access to eye health for poor people, a fee waiver is provided for persons who are unable to pay for surgery. Even during times of war and instability, IAM NOOR managed to run several eye hospitals throughout the country. In 2008, two eye hospitals could be handed back to the government. However, IAM NOOR maintains a contractual partnership with the government, which makes it possible for these facilities to continue to charge user fees unlike other government facilities.

Methodology

In May 2012, an evaluation of the IAM NOOR eye care program was done with support of Light for the World to determine the sustainability of the different services. An independent consultant visited four hospitals, including the two that were handed back to the government and additionally collected data from two other IAM NOOR facilities. The methodology used for the evaluation was the adjusted “financial sustainability-planning tool” as developed by David Green.

Results and discussion

From the evaluation we learn that one of the IAM NOOR run eye care facilities, and both government run facilities have nearly reached full cost recovery. Other facilities still have substantial dependence on donor funding. The cost-recovery for these clinics varies between 47 and 62%, partly due to the fact that some of these clinics are only recently operational. Increasing patient numbers and achieving higher efficiency, in terms of a more adequate “eye surgeon to paramedic ratio”, are expected to increase the cost recovery. The evaluation further showed that not only a high volume of patients does result in a high percentage of cost-recovery, but lower expenses also do. This shows in the government run hospitals: these provided substantially lower salaries and implemented other cost-cutting measures including lower expenses on maintenance. Through these measures both government run hospitals managed to recover costs despite relatively low efficiency. This shows, that full cost-recovery does not necessarily imply that the facility is running at maximum capacity, and that it is delivering high quality care to all patients. This however is essential to make eye care programs sustainable in the long run, and moreover to tackle the still-increasing problem of avoidable blindness in Afghanistan.

High cost recovery rates do not depend only on high volume of patients and quality.

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**Evaluation of the Cost Recovery System**

IAM NOOR Eye Care Program in Afghanistan

Yellox™ reaches Garango in rural Burkina Faso

**CROMA and Bausch + Lomb support us with highly effective eye drops**

Garango is a district headquarters town in the west-African country Burkina Faso, in the East of its capital Ouagadougou. The town of more than 70.000 inhabitants is surrounded by many small villages, typical for rural Burkina Faso.

Dené Aboulaye has been living in one of these villages for all his life. Owning a small plot of land, he and his wife were able to produce sufficient food to raise their seven children, and stock seeds for the follow year’s cultivation period even in difficult years.

His life routine changed when his eyes developed Cataract and he eventually lost his eye sight. Fortunately, the villages in Garango area are covered by a community based rehabilitation programme, implemented by the Catholic Church with support of LIGHT FOR THE WORLD. Field workers in the programme visit the villages regularly to support persons with disabilities and their families to accessing health, education and livelihood, and promote their empowerment and inclusion in community life. It was a field worker who identified Dené Aboulaye and informed him about the option to get his eyes operated during a surgical outreach in Garango.

Mid-march the ophthalmologist Dr. Jerome Sanou and his team from the LIGHT FOR THE WORLD-supported eye clinic in Zorgho set up an operation theatre in Garango as part of their regular outreach activities. He will have operated more than 50 patients in just two days. Dené Aboulaye was one of the first patients to show up, having been accompanied by his daughter on the 18 km journey from his village to Garango. The following day brings reassurance: The surgery went well. Dené Aboulaye sees again. It is yet another life-changing experience, and his first thoughts are on an immediate duty he wants to take up: repairing the thatched roof of his house before the start of the rainy season.

His operation however also marks another important moment. It is the first time Dr. Sanou and his team apply Yellow™ (Bromfenac Sodium-sesquihydrate) after the surgery. Yellow™ is the first non-steroidal anti-inflammatory drug used twice a day only and only half of the time compared to other post-cataract-surgery drugs. It does not sting or burn in the eye. Yellox™ reached Garango thanks to a donation of the two companies CROMA and Bausch + Lomb, who agreed to provide 50.000 units of the drug, which will be used by LIGHT FOR THE WORLD partners in programmes across Africa and in Papua New Guinea.

Dr. Sanou is highly appreciative of being able to apply Yellow™: “Patients react very positively. Especially the fact, that Yellow™ does not sting, helps to avoid negative reactions and increases the compliance of patients significantly.”
LIGHT FOR THE WORLD is a European confederation of national development NGOs committed to saving eyesight, improving the quality of life and advocating for the rights of persons with disabilities in underprivileged regions of our world.

Our priority countries are Burkina Faso, Ethiopia, Mozambique, South Sudan, North East India, Pakistan and Bolivia. In addition, we are active in 9 partner countries in Africa, Asia, the Pacific, Latin America and Europe. LIGHT FOR THE WORLD has been actively involved in Blindness Prevention Programmes in developing countries for 30 years. We strive to achieve the goals of VISION 2020 in aligning our work to national prevention of blindness strategies. We support comprehensive eye care programmes, trachoma and onchocerciasis control, and human resource development for eye care professionals. Our focus is on removing barriers and creating fully accessible eye health services for local communities, especially for those who are poor or excluded.

In 2012 our programmes reached 1,143,939 people and more than 46,000 cataract surgeries were performed.