Introduction

The following memo lays out a strategy on how SightFirst can best dedicate its finite resources towards the fight against blinding trachoma. This document is a part of a SightFirst long range planning process that is examining, in light of Campaign SightFirst II, all aspects of the program. The paper was produced by a trachoma technical working group established by the SightFirst Advisory Committee (SAC) that comprised of members of the SAC, representatives from the World Health Organization (WHO) and LCIF staff. The recommendations were reviewed by other technical experts and Lions leaders. The working group’s recommendations can be summarized as follows:

- That trachoma remain a priority of SightFirst;
- Given the many approaches available in the fight against blinding trachoma, SightFirst financial resources should be prioritized towards providing sight-saving trichiasis surgeries as it presents the most cost-effective and Lions-appropriate option;
- That projects approved by SightFirst be conducted within an integrated SAFE strategy, and fit within a country’s blindness prevention plan, and
- Other trachoma programmatic opportunities may be eligible for consideration by the SAC, but in only certain select and special circumstances.

Trachoma: A Primer

Trachoma is the world’s leading cause of preventable blindness, accounting for 3.6% of the global burden of blindness. It is estimated that 540 million people are at risk of contracting trachoma, of which ten million are risk of becoming blind. The disease is primarily found in the poorest and most remote areas of Africa, Asia, South and Central America, the Middle East and Australia, where sub-optimal sanitation and hygienic practices are most common.

Trachoma is caused by Chlamydia trachomatis – a microorganism that spreads through contact with eye discharge from infected persons (hands, towels, etc.) and through transmission by flies attracted to eye discharge. After years of repeated infection, the inside of the eyelid may be scarred so severely that the eyelid turns inward and the lashes rub on the eyeball, scarring the cornea. If untreated, this condition leads to the formation of irreversible corneal opacities and blindness.
Trachoma control can be achieved through implementation of the “SAFE” strategy. The SAFE method comprises four components:

S: Surgery, to reverse trichiasis (the late, blindness-causing stage of the disease when the eyelashes turn inwards and rub on the cornea);

A: Antibiotics (Azithromycin, Zithromax ©), to treat active infection of the disease;

F: Facial cleanliness, to increase personal hygiene and thus reduce the opportunities for disease transmission, and

E: Environmental change, to improve access to water and sanitation.

SightFirst and Trachoma: A Brief History

The SAC recognizes that trachoma is a leading cause of preventable blindness and Lions and SightFirst should properly play a positive role. Applications are evaluated based on how they fit within the SAFE strategy, local and national needs, and a given country’s national blindness prevention plan (as appropriate). It is also noteworthy to point out that grants have covered all components of the SAFE strategy. SightFirst has funded eight trachoma projects in six countries for US$6,373,028, a modest amount when compared to the amount of grants made towards cataract (US$56 million) and onchocerciasis projects (US$36 million). Achievements include: 124,709 trichiasis surgeries performed, 337 trichiasis surgeons trained, 4.6 million Zithromax treatments given, 244,042 latrines constructed and 140 water sources provided.

The SightFirst Trachoma Working Group

The SightFirst Trachoma Working Group is an ad hoc body consisting of Dr. Serge Resnikoff, Dr. R. Pararajasegaram and Dr. G.P. Pokharel of the World Health Organization, SAC member Ed McManus, and Phillip Albano, Holly Becker, Joshua Friedman and Sonia Pelletreau of the LCIF Sight Programs Department. The group met over a two-day period immediately following the August 2006 SAC meeting, followed by a meeting with Dr. Jacob Kumaresen and Dr. Amos Sam-Abbeni of ITI who were invited help the group with its planning mandate.

The work of the group was guided by several principles. The first was that the strategy to be recommended be scientifically sound and in line with currently accepted trachoma control and blindness prevention practices. The second was that strategy to be recommended be such that it could be adopted at a global, national or local level levels and have meaningful impact on the prevalence of trachoma. Finally, and perhaps most importantly, that the strategy adopted be one where local Lions could have the greatest amount of involvement, and opportunities for recognition.
The Way Forward

The technical working group recommends that SightFirst focus its approach to trachoma towards the provision of sight-saving trichiasis surgeries, so long as these projects are a part of an integrated SAFE program, and meet the standards of a country’s national blindness prevention plan. Applications requesting funds for the other components would be considered on a case-by-case basis. Before turning to the reasons for the working group’s recommendation, it might first be helpful to provide additional information about how trichiasis is treated.

The surgical component immediately addresses the needs of people at imminent risk of blindness. Using a simple and cost-effective surgical procedure, trained health workers are able to rotate eyelashes away from the eye and prevent further scarring of the cornea.

What is particularly noteworthy about the surgery is that one need not be an ophthalmologist to perform the operation. Ophthalmic assistants and nurses can be trained in approximately two weeks to perform the procedure using local anesthetic. The surgery itself takes about 15 minutes, and long-term success rates are around 80%. (One of the keys to long-term success is to prevent re-infection of the patient, hence the importance of the A, F, & E components). In communities where trachoma infection is common, the effectiveness of this relatively simple procedure often helps convince people that further trachoma control activities are important and likely to succeed.

Turning back to the working group’s recommendations, the following are the reasons why the SAC may wish to focus future SightFirst trachoma programming on the surgical component of trachoma control.

The Scope of the Problem is Significant: According to a 2003 WHO study, there are over 8 million people in 55 trachoma endemic countries who are visually impaired because of trachoma. Most of the countries listed have local Lions clubs, have local Lions clubs that have participated in SightFirst programming and/or are non-Lions countries that nonetheless have sponsored SightFirst projects.

Finite resources of SightFirst II: Campaign SightFirst is well on its way to reaching its target. Nonetheless, we should also keep in mind that the disease and programmatic areas to be addressed in SightFirst II are much broader than SightFirst I. The competition for SightFirst II financial resources among so many deserving options, in our mind, speaks to the need for clarity and direction in the program’s grant making. Doing so will help ensure that SightFirst resources reach the greatest number of people, are expended in the most cost-effective manner, and have the deepest impact on blinding trachoma.

The “S” Component is Lions-Friendly: The surgical component offers the greatest opportunities for hands-on service. As is common with Lions-supported cataract screening and surgery programs, Lions can play a critical role in ensuring that screening/surgery teams are transported...
to targeted areas; patients with operable trichiasis are brought to the surgery center, as appropriate, and returned home; patients and their caregivers are provided food, water and a place to stay; and that patients receive proper follow-up care. It is also important to note that Lions can play a lead role in publicizing a screening and surgery camp, an opportunity that also offers the Lions a chance to advertise their other service initiatives and positively project the Lions name. Perhaps more importantly, sponsoring trichiasis surgery camps offers local Lions a one-on-one service experience and the ability to play a direct role in helping someone reclaim their sight. Finally, in countries where blinding trachoma and cataract are co-endemic, and Lions are already performing cataract screening and surgery campaigns, there is an opportunity for SightFirst trachoma funding to build upon the existing cataract campaign.

The Key Elements of a Trichiasis Surgery Campaign are Similar to Other SightFirst-Funded Initiatives: The most important components successful trichiasis surgery program already have a tradition of support in SightFirst. Similar to our cataract programming, SightFirst support for trichiasis surgeries would like entail the sponsorship of medical consumables, surgery kits and equipment and the training of appropriate personnel. The costs of supporting these initiatives are reasonable as well. In general, the complete cost of a trichiasis surgery on a per patient basis averages between US$15-20 per person. SightFirst funds typically only cover one-half to two-thirds of the total cost.

Focusing on Trichiasis Surgeries Offers an Opportunity for Global Leadership & Identify: The major international eye care NGOs all support the SAFE strategy, and provide financial resources to component programming, depending upon the country and the interests of the organization. There are also a myriad of major and minor NGOs that play a role in trachoma control by focusing on a single component. The International Trachoma Initiative (ITI), for example, thanks to its relationship with Pfizer, Inc. (the maker of Zithromax ©) focuses exclusively on the “A”, or antibiotic, component. There is currently no one organization that focuses on the “S” component exclusively.

There could be several benefits should SightFirst take the lead in the provision of trichiasis surgeries. These include the opportunity to: effectively brand our programming to Lions worldwide, potential donors and the media; develop and encourage local Lions and international staff expertise, and take the lead in encouraging fellow eye care NGOs and national governments to focus on the problem. It goes without saying that SightFirst will not be in a position to fund every trichiasis surgery for every deserving individual. Program leadership, however, could help ensure that sufficient financial resources are made available from a variety of funding sectors.

How Should SightFirst Address “A,” “F” and “E?”

While the working group agreed that a SightFirst II focus on providing the necessary conditions for trichiasis surgery could make the greatest impact on the disease and speaks most clearly to the mission, capabilities and interest of Lions locally and internationally, it was also fully
realized that a single and exclusionary focus on the “S” component may also not be in the interest of SightFirst or the Lions as well. Here, the working group felt that requests from Lions and others seeking A, F, and E funds whether independently or as part of a trichiasis project, might be best vetted according to the following principles:

a. Applications from SightFirst-established partners with significant experience in providing services focused on the other three components. This also includes partners that have previously received SightFirst funds. The SightFirst partnership with The Carter Center, which includes trachoma programs in Ethiopia and the Sudan with strong “F” and “E” components, would be an example of this;
b. Applications from Lions-owned or administered entities with previous experiences in carrying-out successful trachoma control projects focusing on the three other components, and
c. Applications that are otherwise determined by the SAC to meet the funding philosophy of the SightFirst program and LCIF.

**Tactics**

The committee considered how an “S” focused trachoma program might be implemented in the field. The members agreed that each country has different manifestations of the problem and different challenges to be overcome in the fight against blinding trachoma. These realities will be reflected in the applications the SightFirst program will receive. However, the committee did agree that there were certain elements that each prospective project should ideally contain if they are to make the greatest impact.

a. The “A”, “F” & “E” components must be in place. Trachoma is an infectious disease that is easily spread throughout a population. The SAFE approach is most effective if the components are working in concert, less re-infection occur. This is important because the most successful surgery campaign will be undermined if the patient develops trichiasis again due to a lack of water, hygiene information or antibiotics. The challenge the SAC will face with proposals is determining the degree to which it is confident that the other components are in place, or will be in place in a reasonable amount of time.

b. Projects should focus on those countries where the trichiasis backlog is the greatest, or where there are pockets of trichiasis and SightFirst funds will be an integral part of a country-wide effort to eliminate trachoma. The first approach will help ensure that the greatest number of people are reached in a cost-effective manner. The second might bring these values as well but has the added public relations value of Lions being associated with a national public health success.

c. In hyperendemic areas, where an adequate number of surgeons is not available, a short term “camp” approach might be effective. Otherwise, generally, a campaign approach for trichiasis surgery should be avoided except when it is integrated with cataract surgical outreach projects supported by SightFirst. The program’s support for existing eye care/health care facilities where trichiasis surgeons are available, and the
organization of social mobilization of patients with trichiasis, may be the best way to ensure sustainability.

d. Partner governments must have the political will and capacity to support the project. In most trachoma-endemic countries, the public health sector is more powerful than the private sector so the buy-in of the government is an important indicator of potential success. As a corollary of this, it will also be important that the potential government partner have a national blindness prevention plan and a trachoma control plan. These plans should be backed by empirical data so the identification of appropriate trichiasis surgery areas should be a relatively straightforward process. Where situations arise that a potential government does not have statistics on their trachoma problem, SightFirst may want to require a survey and pay for its conduct.

e. SightFirst should support the establishment of or the strengthening of local capacity. Trichiasis surgery is a relatively simple procedure that can be performed by a trained health care provider using easily accessible tools. Moreover, the identification and treatment can be amplified through the support of active outreach screening and surgery programs. As such, proposals to SightFirst will likely include funds for training, surgical kits and equipment, consumables, staff per diems, transportation and monitoring & evaluation costs.

f. The local Lions must play an active role in all aspects of the trichiasis surgery program. All applications must detail how the Lions will support the surgery program, and what kind of Lions recognition and publicity will be generated through this effort. These are standard requirements of all SightFirst projects. The working group believes, however, that each proposal should include a US$2,500 – US$5,000 stipend (as appropriate) to support Lions involvement and public relations efforts. Moreover, the SAC may want to consider requiring Lions presence on all appropriate national blindness prevention committees as a condition on grant approval.

A Few Thoughts about Implementation

The above policies may not be fully effective unless steps are taken to inform the Lions in trachoma endemic areas, our technical advisors and project partners about them. This can easily be accomplished. However, it might be advisable for the SAC to take a more activist approach and have appropriate Lions leadership, LCIF staff and technical advisors visit countries to determine how best establish or strengthen Lions trachoma programs, and design proposals that meet the new SightFirst guidelines. A list of countries that merit immediate attention in this regard is attached.

The SAC may also wish to consider empowering Lions leaders and LCIF staff to seek out coalitions of like-minded non-governmental organizations that will join forces and attack the trichiasis backlog in a given country. Such an approach would have the benefit of enabling SightFirst to marshal its resources effectively while at the same time being a part of an effort that could achieve coverage not possible if the Lions were to act alone.
Potential Areas of Action

Finally, the Trachoma Working Group discussed at length the prospects for trachoma elimination and/or control in all countries where trachoma is a significant eye care problem. Taking into consideration the extent of the problem in country, governmental will and involvement, general and specific information about trachoma prevalence, the presence of active Lions with a history of SightFirst involvement and the presence of other NGOs as foundations for possible programmatical success, the working group came up the following list of countries where future SightFirst programming may be focused:

**Ethiopia:** Highest backlog of trichiasis cases in the world (1.255 million). Government has just finished a country-wide blindness prevalence study and is very active in blindness prevention overall. Small number of Lions clubs, though active in SightFirst cataract screening and surgery programs.

**Tanzania:** Has a large backlog of trichiasis cases (54,000). Government is actively mapping trachoma prevalence country-wide and the public eye care system is fairly well developed. There are many eye care NGOs on the ground.

**Mali:** Has a large backlog of trichiasis cases (105,896). Reasonable country-wide prevalence data though more needs to be done on the district level. Active Lions with significant SightFirst experience. There are many eye care NGOs on the ground.

**Senegal:** Currently has 91,500 people in need of trichiasis surgery. Reasonable country-wide prevalence data though more needs to be done on the district level. Active Lions with some SightFirst experience. There are many eye care NGOs on the ground.

**Uganda:** Currently has 4,142 people in need of trichiasis surgery. With established Lions cataract screening and surgery programs, there exists strong possibility of programmatical linkage.

**Kenya:** Although no nationwide figures are currently available, SightFirst funds may be able to assist with a country-wide prevalence study. With established Lions cataract screening and surgery programs, there exists strong possibility of programmatical linkage.

**Niger:** There are 98,371 people in need of trichiasis surgery. A nation-wide trachoma control program is in place. Governmental support is strong. Local Lions are just beginning to become active in SightFirst so it is unknown if they have the capacity to carry-out further work.

**Nepal:** There are 45,676 people in need of trichiasis surgery. The disease exists mainly in the west. With established Lions cataract screening and surgery programs, there exists strong possibility of programmatical linkage.
It should also be noted that Sudan, Egypt, China, India, Pakistan, Vietnam, Nigeria and Burkina Faso were also discussed by the working group. While the members viewed these countries as potential targets, it was agreed that these may be viewed in the short term as lesser priorities due to a number of singular or collective factors, including lack of governmental political commitment, political instability, lack of adequate mapping and data collection and lack of Lions presence.