Introduction

The mission of the Lions’ SightFirst program is to support the development of comprehensive eye care systems to fight the major causes of blindness and vision loss and care for the blind and visually impaired. The program funds high quality, sustainable projects that deliver eye care services, develop infrastructure, train personnel and/or provide rehabilitation & education in underserved communities.

Nearly 80 million people in the world have low vision, a form of visual impairment where vision is significantly and irreversibly reduced. Rehabilitation and the use of adaptive devices can help those with low vision use their remaining vision and maintain quality of life. Unfortunately, low vision services are accessed by a mere five percent of those with the condition, leaving the majority to face obstacles similar to those who are blind.

SightFirst efforts to strengthen low vision services around the world are critical to the development of comprehensive eye care systems where ongoing low vision rehabilitation is of value equal to other treatment interventions, like surgery or drug therapy. This paper, prepared as part of a long range planning effort mandated by the SightFirst Advisory Committee (SAC), recommends strategies to guide future SightFirst low vision programming.

Low Vision

The information included in this section is adapted from the booklet entitled Focus on Low Vision by Dr. Patricia O’Connor and Professor Jill Keeffe of the Centre for Eye Research Australia, March 2007.

What is Low Vision?

Low vision is significantly reduced, but useable vision. It is not blindness. Low vision cannot be corrected or improved with glasses, contact lenses or surgery. The main causes of low vision are age-related macular degeneration (AMD) and glaucoma. Diabetic retinopathy, however, is also becoming an important cause of the condition. While the causes of low vision are primarily age-related, it also occurs in young people. In middle to high income countries, low vision is often caused by hereditary or congenital conditions while, in poorer countries, it may be the result of vitamin A deficiency, measles, cataract and harmful traditional practices. Low vision has consequences for quality of life (QoL) that differ for each person. The combination of visual, functional, psychological, social and economic factors influence the individual’s day-to-day experience.
**Low Vision Services**

Comprehensive low vision services include clinical rehabilitation services and the use of adaptive technologies (see Table A for more details). Despite the large proportion of people who could benefit from low vision services, as few as 5-10% actually use them. The disparity is a result of service, client and health professional issues. Service-related barriers often include delayed referral of patients, poor coordination and integration of interdisciplinary services and limited promotion of services. Clients may not use services because they misunderstand their condition, are unaware of the benefits of low vision services or they may have difficulty accessing services because of limited mobility or financial means. Finally, because eye care professionals often focus on the medical aspects of their patient’s vision problems, they do not often include referral for low vision rehabilitation as part of their normal treatment regimens.

**Table A. Components of Low Vision Services**

<table>
<thead>
<tr>
<th>Rehabilitation services</th>
<th>Adaptive technologies</th>
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<tr>
<td>Low vision clinical services</td>
<td>Environmental modifications; i.e. lighting, tactile markers, contrast</td>
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<tr>
<td>Assistance with activities of daily living</td>
<td>Optical devices/aid; i.e. magnifiers, telescopes</td>
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<tr>
<td>Counseling</td>
<td>Non-optical devices; i.e. glare control devices, bold lined paper and bold pens, writing guides, posture supports, needle threaders, high contrast watches, talking calculators, large print materials, labeling devices</td>
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<tr>
<td>Orientation &amp; mobility (O&amp;M) training</td>
<td>Video and computer technology; i.e. CCTV systems, computer access methods, including screen enhancement, screen magnification, screen reading (voice output), keyboard identification options, scan to speech software and devices</td>
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<td>Peer support groups</td>
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<td>Community and social services</td>
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<td>Advocacy (support groups, help lines)</td>
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<tr>
<td>Education</td>
<td></td>
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<tr>
<td>Employment &amp; training</td>
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*Table A and B list a wide range of low vision services and technologies. The objective of each SightFirst low vision project will vary, as will the human and financial resources available to support and sustain it. Consequently, future projects are not likely to include all elements, but only those that are most relevant and feasible.*

Low vision services are delivered through three main models of care – primary, secondary & tertiary. Table B outlines the key features of each model. In terms of assessing the outcomes of a low vision system, success is generally measured by:

- Compliance with referrals – How many patients who are referred, actually attend low vision services?
• Coverage – What proportion of the low vision population use available services?

• Changes achieved through interventions – Measuring changes in QoL assessments before and after rehabilitation

Table B. Models of Low Vision Care

<table>
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<tr>
<th>Level</th>
<th>Type of eye care delivered</th>
<th>Type of low vision service provided</th>
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<tbody>
<tr>
<td>Primary or community</td>
<td>Community health centers, community based outreach, schools</td>
<td>Vision screening, assessment of functional vision, referral to low vision services, simple advice on environmental modification and non-optical interventions, simple low vision devices (low power magnifiers)</td>
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<tr>
<td>Secondary</td>
<td>Ophthalmologist or optometrist and a multi-skilled worker</td>
<td>Diagnosis &amp; treatment, assessment of low vision, refraction, prescription of optical and non-optical devices, training in visual skills and use of devices</td>
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<tr>
<td>Tertiary</td>
<td>Specialized multidisciplinary low vision care teams: ophthalmologists, optometrists, ophthalmic nurses and techs, rehabilitation specialists, O&amp;M instructors</td>
<td>Diagnosis &amp; treatment, assessment of low vision, refraction, prescription of high power and complex optical, non-optical and electronic devices training in visual skills and use of devices, referral and consultation with other professionals</td>
</tr>
</tbody>
</table>

* Table A and B list a wide range of low vision services and technologies. The objective of each SightFirst low vision project will vary, as will the human and financial resources available to support and sustain it. Consequently, future projects are not likely to include all elements, but only those that are most relevant and feasible.

**SightFirst & Low Vision**

Low vision is a new programming area for SightFirst, but Lions have been involved in various low vision efforts for some time. A minimal number of LCIF Standard grants have been approved to purchase low vision equipment for schools or loaner libraries of low vision devices in North America.

The Core 4 Low Vision program, adopted in 1999, has awarded 18 grants totaling US$3.1 million. Projects, which have included the establishment or expansion of low vision centers, have taken place in Australia, Dominican Republic, Taiwan and the United States, including Puerto Rico.
Finally, the Lions/WHO Project for the Elimination of Avoidable Childhood Blindness, approved by SightFirst in May 2000, includes a component to purchase equipment and provide training for low vision services offered at 35 Lions child-friendly eye care centers. To date, the program has trained more than 1,000 workers and the centers have performed nearly 14,000 low vision screenings and provided low vision services to 4,000 children.

**SFLRP Working Group Recommendations**

In November 2008, the SFLRP Working Group convened a meeting with low vision experts to discuss current trends related to low vision and opportunities for SightFirst low vision programming. The meeting included input from Dr. Serge Resnikoff and Dr. Silvio Mariotti of the World Health Organization, Dr. R. Pararajasegaram, IAPB Affiliate and SAC Member, Dr. Jill Keeffe, Professor at the Centre for Eye Research Australia and SightFirst Technical Advisor and Dr. R. Tracy Williams, Executive Director of the Spectrios Institute for Low Vision & Clinical Associate Professor Director of Low Vision Services at Loyola University. Also present were Ed McManus and Phoebe Sebring, consultants for the SFLRP effort, and Phillip Albano, Joshua Friedman, Karim Bengraine and Gina Prendki of the LCIF Sight Programs Department. With this information, the SFLRP Working Group suggests the following conclusions and strategies for future SightFirst support of low vision:

**Conclusions**

1. **SightFirst funds should be used to strengthen secondary and tertiary level eye care institutions with the addition of low vision services for adults & children.**
   - Projects may include provision of equipment and an initial stock of low vision devices
     - Equipment requests must align with the VISION 2020 Low Vision Group standard equipment lists.
     - Equipment should be purchased from the Low Vision Resource Center in Hong Kong unless comparable equipment and prices can be secured elsewhere.
     - In some cases, it may be necessary to provide funds for business support services to help establish and manage loaner libraries of low vision devices; or this may be a volunteer opportunity for a local Lion(s).
   - Projects may include support for training of *existing* personnel
     - While funds may be requested to pay for training of personnel, it remains SightFirst policy that monies are not available to support salaries.
Projects may include support for the development of community-based outreach efforts & referral, including education & awareness

- Priority should be given to initiatives serving schools for the blind and homes for the elderly as these facilities provide for a significant number of persons that would readily benefit from low vision services. These projects would also include ample volunteer opportunities for local Lions.

Projects should include support for monitoring and evaluation

- Projects should: 1) identify the underserved and determine barriers to service; 2) expand service coverage or range of services, 3) identify the source of referrals, 4) monitor uptake of services, including low vision devices; 5) look at outcomes related to patient QoL and; 6) program sustainability.

2. **SightFirst funds should be used to support occasional regional training seminars for specialized low vision services**

- Funds may be requested for travel, faculty stipends & reasonable meeting expenses.

3. **SightFirst funds should be used to expand existing low vision services, especially innovative projects focused on outreach to new populations**

- Funds may be requested for the same type of activities listed in Conclusion 1.

Finally, it was agreed that future SightFirst low vision projects should employ the same overarching strategies approved for other program areas. SightFirst low vision projects should 1) help develop comprehensive eye care systems; 2) use and/or collect data to identify and evaluate projects; 3) target underserved populations through equitable eye care services; 4) provide high-quality eye care services; 5) help create sustainable eye care services; and 6) engage Lions as advocates.

**Next Steps**

Should the SAC approve the strategies outlined above, the SFLRP Working Group recommends the following next steps with regards to implementation:

- The SightFirst grant application, including funding criteria and guidelines, will need to be revised and new written resources developed for Low Vision projects.

LCIF SightFirst staff should be provided with resources to inform regional technical advisors in all regions as well as Lions about the new strategies and grant application process. Additional resources may be needed to help inform Lions leadership in countries that have not traditionally received SightFirst support.