



## ACTIONS TO ADDRESS THE GROWING BURDEN OF AVOIDABLE BLINDNESS AMONG ELDERS IN SRI LANKA

Sri Lanka has made progress in addressing the needs of its ageing population, but greater investment in healthy and active ageing is essential. Blindness and visual impairment are not an inevitable part of ageing. The country has a strong health care system and the Government of Sri Lanka is committed to the elimination of preventable blindness. Action is needed to bring eye care services closer to communities and to build strong eye health systems as part of essential health services that are accessible and available to all elders in Sri Lanka.

### BACKGROUND

The Better Vision, Healthy Ageing Program is a collaboration between government and civil society partners, based in Nuwara Eliya district in the Central Highlands of Sri Lanka. The program is trialling an innovative model of healthy and active ageing that includes health promotion, blindness prevention and management, and social participation through the platform of Elders' Clubs.<sup>1</sup> This brief draws on the research literature and the key lessons from the program and makes recommendations for action to improve the eye health of elders in Sri Lanka.

### KEY RECOMMENDATIONS

In Sri Lanka, the Ministry of Health, the Ministry of Social Services, the College of Ophthalmologists, the Sri Lanka Optometric Association, the national Vision 2020 Programme, eye health organisations, and development organisations should take action to:

- Address barriers to seeking eye care through community-based peer education
- Bring eye health care services closer to communities
- Introduce new ways to increase the eye health care workforce of ophthalmologists, ophthalmic technologists and community eye health specialists
- Improve cataract surgery waiting lists, follow-up rates, and operating facilities at hospitals and Eye Units
- Improve monitoring, coordination and accountability mechanisms for eye care
- Better integrate eye health, chronic disease and healthy ageing policies and practices



**THE CHALLENGE OF VISUAL IMPAIRMENT AMONG ELDERS IN SRI LANKA**

**POPULATION AGEING**

Most of the world’s people can today expect to live into their sixties and beyond. Rising life expectancy is a public health achievement, reflecting success in combatting preventable child and maternal deaths and deaths in older people, or elders. When coupled with marked falls in birth rates, increases in life expectancy are leading to significant changes in population structure. Population ageing is occurring fastest in low- and middle-income countries. This has many implications for development programming and presents important opportunities.

Sri Lanka has one of the fastest ageing populations in Asia.<sup>2</sup> The proportion of elders is now increasing quickly because Sri Lanka achieved longer life expectancy and reduced birth rates soon after independence. In 2015, 12.4% of the population in Sri Lanka was over the age of 60;<sup>3</sup> this is estimated to reach 28.6% by 2050.<sup>4</sup> Population ageing is happening at a faster rate than experienced in high income countries.

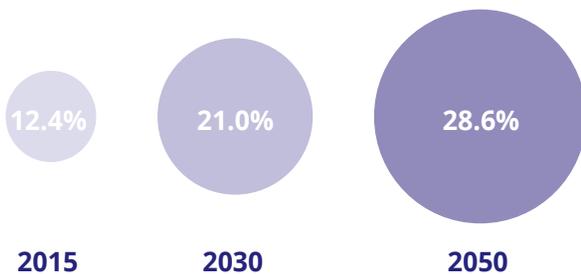


Figure 1: Percentage of the population in Sri Lanka over 60 years in 2015, 2030 and 2050<sup>5,6</sup>

**VISION LOSS AND AGEING**

In low- and middle-income countries, avoidable blindness and visual impairment are a leading cause of disability in elders. Eye health problems are more common among elders than other age groups. The number of people living with visual impairment rises sharply beyond the age of 50 years (see Figure 2). Half of the people currently living with avoidable blindness are aged 70 years or older, and most of them live in poor regions of the world.<sup>7</sup>

**Ageing and the prevalence of blindness and MSVI**

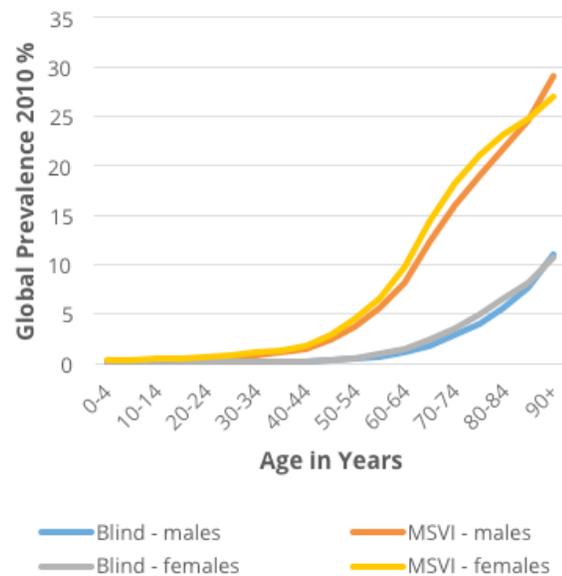


Figure 2: The prevalence of blindness rises sharply after the age of 60 years; and moderate and severe visual impairment (MSVI) after the age of 50 years.

Source: Stevens, G et al (2013). Global prevalence of vision impairment and blindness magnitude and temporal trends, 1999-2010, Journal of Ophthalmology, Vol.120, pp.2377-2384

Millions of people are blind simply because they live in poverty. In poorer countries, four out of five people who are blind don’t need to be. Many eye diseases are preventable, or easily treatable. This represents an incredible injustice: but it also means there are enormous opportunities to ensure that all elders have access to quality eye care services by addressing the specific needs of elders and investing in strong, equitable eye health systems.

Refractive error and cataract are the leading causes of blindness and visual impairment in elders in poorer countries. These are easily treated with glasses or inexpensive, straightforward surgery. Age is also a risk factor for diabetes and its vision-related complication, diabetic retinopathy.

Recent national blindness survey data from 2014 shows that the prevalence of blindness in Sri Lanka increases with age, occurring in: 2.3% aged 50 years and over; 4% aged 60 years and over; and 8.4% aged over 70 years.<sup>8</sup> A greater number of older women than older men are blind. Amongst adults aged over 40 years, cataract is the leading cause of blindness comprising 66.7%, followed by refractive error at 12.5%. There is

considerable unmet need for cataract surgery, and inequality in the coverage of cataract surgery between provinces. Cataract surgical coverage is significantly lower at older ages, among those with poorer literacy, and those with lower economic status.

Low vision is defined as visual impairment, not correctable by standard glasses, contact lenses, medicine or surgery, which interferes with a person’s ability to perform everyday activities. There are estimated to be 140,000 people with low vision in Sri Lanka, and this number will grow.<sup>9</sup>

### IMPACT OF VISION LOSS ON ELDERS

The impact of visual impairment is greater on elders. Elders are often struggling financially, may be coping with other health problems, and may have difficulties in reaching health services. Visual impairment makes it more difficult for elders to prevent and manage health problems, contribute to family and community life, and increases the burden of care on families, especially women. A study to understand the views and experiences of elders on the impact of visual impairment as part of the Better Vision, Healthy Ageing Program in Sri Lanka, found that elders worry about becoming dependent.<sup>10</sup>

Ageing and vision loss have a compounding impact that reduces quality of life. When elders cannot see well, they may experience:<sup>11</sup>

- Reduced life expectancy
- Co-morbidity with other chronic diseases
- Greater likelihood of experiencing pain and discomfort
- Increased risk of falling over and fear of falling
- Reduced ability to access health services
- Reduced ability to take medicines as directed
- Increased risk of depression and loss of self-esteem
- Loss of independence for self-care, daily activities and mobility
- Reduced ability to contribute to their families through cooking, childcare and other domestic work
- Reduced social interaction
- Reduced opportunity to participate in religious rituals
- Loss of income and productivity

Preliminary data from the Better Vision, Healthy Ageing Program shows that reported blindness or vision impairment is linked to depression (see Figure 3).

	Good or excellent vision	Poor vision or blind
Seldom or never has negative feelings/depression	68.9%	48.6%
Very often or always has negative feelings/depression	12.2%	19.4%

Figure 3: Association between visual impairment and depression

### INVESTING IN THE EYE HEALTH OF ELDERS

Blindness and visual impairment are not an inevitable part of ageing. With good eye health care and access to sight restoring treatments, people can maintain their vision to keep healthy and active as they age.

Elders represent a significant resource for society. They play vital social, cultural and economic roles in their families and communities.<sup>12</sup> Visual impairment among elders affects national economic development. Most elders in Sri Lanka – about 80% – live with their children, and rely on them for financial and social support.<sup>13</sup> Older women contribute greatly by looking after grandchildren and domestic tasks, enabling women to earn outside the home – important for countries like Sri Lanka who are seeking to increase female participation in the workforce. When elders cannot see well, they cannot play this role and may need care themselves.

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The economic benefits of restoring sight are remarkable – in low- and middle-income countries, it is estimated that there are at least four dollars of economic gains for every one dollar invested in eliminating avoidable blindness.<sup>14</sup>

Of course the true return on investment is much higher. The enormous benefits restored sight brings to elders – longer and healthier lives, reductions in extreme poverty, gender equality, productivity, independence and self-esteem, and better quality of life – cannot be quantified in monetary terms.

**CHRONIC DISEASE, VISION LOSS AND HEALTHY AGEING**

Elders are more likely to be affected by chronic non-communicable diseases (NCDs) alongside vision loss. In Sri Lanka, there is a great increase in diabetes, high blood pressure and heart disease as a result of changes in lifestyles and diets (less exercise, more fat and sugar in the diet), and the increasing age of the population.<sup>15</sup> One in five adults in Sri Lanka are estimated to have diabetes or pre-diabetes.<sup>16</sup> About one third of those with diabetes are undiagnosed. Chronic diseases make eye problems much more likely if left untreated or not managed well. The risk of visual impairment and blindness rises with the number of years lived with diabetes.<sup>17</sup>

Detecting and managing chronic diseases is important to reduce the risk of visual impairment. Preserving vision, or restoring sight, can be a powerful motivator for an individual to access health care services and better manage their chronic disease.

**BARRIERS FOR ELDERS IN ACCESSING EYE CARE SERVICES IN SRI LANKA**

There are many barriers which prevent elders from accessing eye health care. In the national blindness survey of 2014 in Sri Lanka, severely visually impaired and blind individuals were asked about the barriers to accessing cataract surgery (Figure 4).<sup>18</sup>

Barrier	%
Too expensive	60.8
Other family priorities	33
No one to accompany	16.5
Can manage – no need	11.3
No time	8.2
Fear or apprehension	5.1
Did not know where to go	4.1
Did not know treatment possible	3.1
Others	8.2

Figure 4. Common barriers to accessing cataract surgery in Sri Lanka

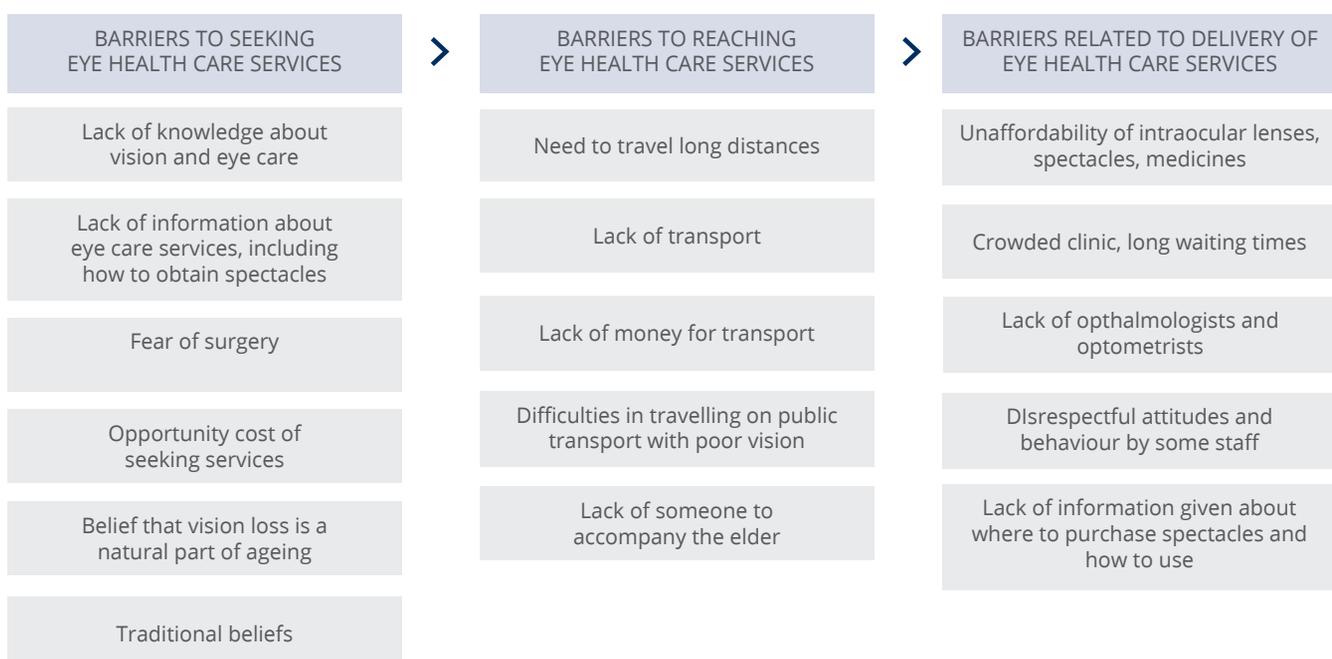


Figure 5: Barriers to seeking, reaching, and delivery of eye care services reported by elders in Nuwara Eliya district

Qualitative studies with elders in Nuwara Eliya district found that barriers to accessing eye care services include transport difficulties, costs of treatment, queues and waiting times, fear, lack of knowledge about services, lack of awareness that something can be done, and health care provider attitudes (Figure 5). Elders asked if eye care services could be provided closer to their homes.<sup>19</sup>

## GOVERNMENT ACTION IN SRI LANKA

### ACTION ON EYE HEALTH

Sri Lanka provides free health care services through a strong, government-funded health care system. The need to re-orient the system towards the detection and management of chronic conditions and ageing-related health problems has been recognised.

The Government of Sri Lanka is committed to the elimination of all preventable blindness.<sup>20</sup> The National Programme for the Prevention of Blindness, or Vision 2020 Programme,<sup>21</sup> is a partnership between the Ministry of Health, the College of Ophthalmologists, national and international non-government organisations, and civil society groups. The program, which sits within the Ministry of Health, has developed a Comprehensive Eye Care Plan 2013-2017.

Until recently there has been limited data on the prevalence and causes of blindness and visual impairment in Sri Lanka to guide planning. The new national blindness survey examined almost 7,000 adults across all provinces in the country. At the launch of the survey report in February this year, the Director General of Health Services and Focal Point for the National Vision 2020 Programme announced that 'a new era of eye care development' is needed to meet the growing challenges of population ageing. Data arising from this survey will be critical to plan future eye care services.

Few developing countries have established national low vision services – Sri Lanka is a notable exception. Low vision services are emphasised in the national eye care plan, and have been expanded effectively through coordinated national planning, advocacy, human resource development, and the availability of affordable and low cost equipment.<sup>22</sup>

Sri Lanka has better cataract surgery rates than some other Asian countries, but there remains a large unmet surgical need, especially in poorer, rural areas. There is a need to address the obstacles to higher and more equitable cataract surgery rates if Sri Lanka is to clear the backlog and cope with the future increase in need.

### ACTION ON AGEING

In Sri Lanka, the Protection of the Rights of Elders Act (2000) made provisions for the establishment of a National Council for Elders, a National Secretariat for Elders, a National Fund for Elders and a Maintenance Board for Elders. The National Secretariat for Elders recognised the value of elders' organisations and lobbied for the strategy of Elders' Committees at every administrative level to be adopted into law. The Amendment Act of 2011 includes the directive 'to establish an Elders' Committee in every *Grama Niladhari*<sup>23</sup> Division, Divisional Secretary's Divisions, Administrative District and Provincial Council area.' Elders are forming an increasing proportion of the electorate so are becoming an important constituency for politicians.

The Ministry of Health is developing a National Policy on Healthy Ageing, and has issued instructions for all registered medical institutions to have disability and age friendly environments.

There are many champions for healthy and active ageing in Sri Lanka. There is now a need for a high level, inter-sectoral coordinating mechanism to build on existing work.

***'A new era of eye care development is needed to meet the growing challenges of population ageing.'***

## OPPORTUNITIES FOR GREATER PROGRESS ON EYE CARE SERVICES FOR ELDERS IN SRI LANKA

Sri Lanka has made progress in addressing the needs of its ageing population, but greater investment in healthy ageing and eye care is essential. Opportunities exist to bring eye care services closer to communities, and to build strong eye health systems as part of essential health services that are accessible and available to all elders in Sri Lanka.

### ADDRESS BARRIERS TO SEEKING EYE CARE THROUGH COMMUNITY-BASED PEER EDUCATION

Many elders may not attend for care because they may be unaware that vision loss can be treated; may anticipate visual impairment as an inevitable part of ageing; and may be fearful of undergoing cataract surgery.<sup>24</sup> Elders with visual impairment are also fearful of travelling to town, particularly unaccompanied, and of the unfamiliarity of the hospital.

Elders' Clubs are community organisations of elders. Elders' Clubs provide a platform for interactive health promotion and education by peers. The Better Vision, Healthy Ageing Program has trained elders who have undergone cataract surgery as peer educators and supported them to visit Elders' Clubs in other communities. Peer educators share how their lives have been transformed by surgery, tell other elders what to expect, and are trusted and respected by other elders.

Nuwara Eliya Hospital has become an 'Elders-friendly hospital' and has established a Hospital Elders' Club. Hospital Elder's Clubs could also provide training and support for peer educators.

#### RECOMMENDED ACTION:

##### Scale up peer eye health education programs

Health care services should work with non-governmental organisations and community groups, such as Elders' Clubs, to implement peer eye health education programs in the community, and at health facilities.

## BRING EYE HEALTH CARE SERVICES CLOSER TO COMMUNITIES

There is not yet a clear system for vision screening of elders in Sri Lanka. Many elders, especially in rural areas, have difficulty reaching health care services for vision screening, because of lack of transport, cost of transport and work obligations. There is also a lack of optometrists or ophthalmic technologists throughout the country, especially in rural areas. This includes too few eye care professionals to screen all elders every two years, or every year where there is existing disease such as diabetes, high blood pressure, history of cataract or family history of glaucoma.

Basic vision screening can act as a tool to detect problems requiring urgent attention, to inform the public of the need for regular eye care and to raise awareness of the correctable nature of many eye problems in elders.<sup>25</sup> Vision screening does not replace the need for professional eye care. It is important that after screening of visual acuity elders should not be told that they have 'passed' an eye examination and do not need to see an eye doctor. This is because they may have problems such as glaucoma, diabetic retinopathy or age-related macular degeneration which cannot be detected accurately with simple vision screening instruments.

The Better Vision, Healthy Ageing Program has explored how to bring vision screening services closer to communities by screening elders for visual impairment at the community level. The community-level Elders' Clubs strategy provides opportunities to reach elders with screening and referral for cataract surgery, glasses, or other eye care, and facilitates the discussion of eye health promotion messages. Where Elders' Clubs have been established, it has been found that it is convenient and cost-effective to undertake screening of elders in a group setting in their community, rather than elders travelling individually to the eye clinic. Literate elders with good vision have been trained as Eye Health Promoters who undertake simple visual acuity screening for their peers and refer them to ophthalmic technologists or the hospital Eye Unit for further assessment or prescription of glasses.

Primary health care workers can be encouraged to check vision and provide eye health promotion to their patients, and refer to specialist services when recommended. In Sri Lanka, many Medical Officers of Health, Public Health Midwives, Public Health Nursing Sisters, and Public Health Inspectors have already been trained in how to assess distant and

near visual acuity, pinhole occlusion, and to look for cataract.

Community Elders' Clubs also provide a platform for the distribution of low-cost glasses to those with refractive error. Currently, many poor elders have to purchase their glasses from commercial opticians and many cannot afford to do so. Some free glasses are provided through charitable eye care 'camps'. The Vision 2020 Programme has developed a list of government-approved suppliers of glasses, which helps to reduce costs. There is not yet a system for the distribution of glasses at the community level.

### **RECOMMENDED ACTIONS**

#### **Promote implementation of the Eye Health Promoter model for community-based vision screening through Elders' Clubs or other community organisations**

Health services should consider how to extend vision screening services to the community level to ensure services are accessible to all elders, particularly those least able to travel. Extending vision screening services into communities could be facilitated by the establishment of Elders' Clubs and implementation of the Eye Health Promoter model. The Eye Health Promoters require coordination, support and guidance. This role could be played by the District NCD Officer, who is usually also the Vision 2020 Programme District Coordinator. The District Eye Surgeon, community Medical Officers of Health, and Estate Medical Assistants, could also play a role.

#### **Increase numbers of primary health care workers trained in basic vision screening**

It is already policy that primary health care workers are to be trained in primary eye care, and they could undertake screening. This needs to be widely implemented.

#### **Establish a system for the distribution of low-cost glasses in the community**

A community-based system for the distribution of glasses could involve: screening and prescription of glasses by ophthalmic technologists through Elders' Clubs; bulk ordering of prescriptions through an approved government supplier by community Medical Officers of Health or District NCD Officers; and distribution of spectacles back to the Elders' Clubs.

### **INTRODUCE NEW WAYS TO INCREASE THE EYE HEALTH CARE WORKFORCE OF OPHTHALMOLOGISTS, OPHTHALMIC TECHNOLOGISTS, AND COMMUNITY EYE HEALTH SPECIALISTS**

Sri Lanka, like many other low and middle-income countries, has a significant shortage of ophthalmologists and optometrists or ophthalmic technologists to meet the growing need for care.<sup>26</sup> As the global population ages, ophthalmologists will be in increasingly greater demand. The Sri Lanka Vision 2020 Programme aims to achieve a ratio of at least one ophthalmologist per 250,000 people: there are currently about 60 ophthalmologists in Sri Lanka for a population of 21 million.<sup>27</sup> Some are working fulltime in sub-specialities such as retinal or corneal pathology, or paediatric ophthalmology, and do not undertake cataract surgery. There are currently less than 50 surgeons performing cataract surgery in Sri Lanka.<sup>28</sup> Each year only three or four doctors are accepted into General Ophthalmology training. There is generally a loss of several consultants each year through retirement, emigration or a move to the private sector, so the pool of ophthalmologists in the country has not been increasing.

There is also a shortage of ophthalmic technologists. The Vision 2020 five-year plan reports that there are 112 ophthalmic technologists in Sri Lanka, while 150 are needed. The plan also draws attention to the unequal distribution of ophthalmic technologists, with most based in cities.

The future demand for eye care services means that there is a pressing need to increase the numbers of eye health care providers.

### **RECOMMENDED ACTIONS**

#### **Introduce a non-consultant specialist grade**

Sri Lanka's health care system has matured to the point where it would be valuable to introduce non-consultant specialists. Interested ophthalmology trainees who do not qualify as consultants could become non-consultant specialists posted to areas of greater need to work under the supervision

of a consultant. These doctors could diagnose eye conditions and undertake cataract surgery in uncomplicated cases, and other minor procedures. In Britain, for example, there are more than 9,000 'Specialty Doctors' - a new title for senior, non-consultant career grade doctors working in hospitals in the National Health Service.<sup>29</sup>

#### **Support ophthalmology trainees to conduct minor eye surgery under supervision**

Doctors undertaking ophthalmology training in low- and middle-income countries can be supervised by consultants to conduct minor eye surgery with low eye complication rates. This approach has been successful at the Kandy Centre for Sight at Kandy General Hospital, Sri Lanka, and could be implemented at other centres.

#### **Increase the intake of ophthalmology trainees**

The College of Ophthalmologists and Post-Graduate Institute of Medicine could work together to promote eye health as a worthwhile specialty to medical undergraduates and expand the numbers of young doctors who enter ophthalmology training to become eye health specialists.

#### **Invest in training courses for ophthalmic technologists and optometrists**

Scaled up investment in optometry training courses are needed, particularly outside Colombo and urban centres, to ensure that all Sri Lankans have access to eye health services. Incentives could be introduced to recruit students from rural areas, or to encourage trained optometrists to work in rural locations.

#### **Introduce a new sub-specialty of Community Eye Health Specialists**

There are very few Community Eye Health Specialists in Sri Lanka who have both knowledge of ophthalmology and a public health perspective. This is not a recognised sub-specialty and there are no positions for Community Eye Health physicians. However such a role is needed to assist with planning and coordination of equitable eye care services, and to undertake research and policy analysis of the current and future challenges of vision impairment.

#### **IMPROVE CATARACT SURGERY WAITING LISTS, FOLLOW-UP RATES, AND OPERATING FACILITIES AT HOSPITALS AND EYE UNITS**

There are a number of barriers to receiving cataract surgery which occur at the hospital or Eye Unit. In most Eye Units in Sri Lanka, patients who are concerned about their vision attend the hospital in the morning and wait to be seen in the clinic. After examination and diagnosis they might be asked to come the next day for surgery. There is often no waiting list system or prioritising of patients in greater need, including elders. Many patients receive cataract surgery when they have only mild or moderate visual impairment, while there remain many people who have severe visual impairment or are blind as a result of cataract who have not had surgery.

After surgery, patients may not return for their follow-up appointments. Follow-up visits after cataract surgery enable timely detection and treatment of postoperative complications and assessment of visual outcomes, with prescription of glasses, if needed. In most parts of Sri Lanka follow-up rates are very good, but in some rural and plantation areas elders often do not return for their follow-up appointments.

In many health facilities the eye surgeon shares the theatre with the general surgeons, so there is limited theatre time available for eye surgery. If there were two or more operating tables in each eye theatre, trainees could undertake cataract surgery under the supervision of a consultant. This would enable twice as many operations to take place in the same time. Kandy Eye Centre has been implementing this model for several years, achieving good surgery rates.

#### **RECOMMENDED ACTIONS**

##### **Introduce guidelines for prioritising patients with severe visual impairment and waiting lists for cataract surgery**

Health services should implement clear guidelines for prioritisation and waiting lists for cataract surgery to ensure that those elders most in need of eye care are prioritised and not left waiting or sent home without appropriate intervention.

### **Introduce incentives and patient education to encourage patients to return for follow-up**

Incentives such as reimbursement of transport costs, free glasses, or 'no queue facilities' can motivate patients to come for follow-up. Educating patients before the operation and reminding them after the surgery about the importance of follow up are also effective. Elders' Clubs and peer education by elders who have already had cataract surgery provide opportunities to increase the likelihood of patients attending follow-up visits. Many elders, or their family members, now have a mobile phone. Text messages may encourage patients to attend for follow-up. Health workers should implement new strategies to improve follow-up rates.

### **Make better use of existing operating theatre space and invest in new Eye Units for surgery**

Eye Units should consider implementing the model of the Kandy Eye Centre to maximise use of the operating theatres and increase cataract surgery rates. The Government of Sri Lanka should consider investing in new dedicated Eye Units for eye surgery in hospitals that do not yet have them.



### **IMPROVE MONITORING, COORDINATION AND ACCOUNTABILITY MECHANISMS FOR EYE CARE**

Rapid assessments of avoidable blindness conducted every eight to ten years give reliable estimates on the prevalence of blindness and help to plan for, and implement eye care programs.<sup>30</sup> Sri Lanka's first national blindness survey in 2014 provides valuable data for planning. Establishing population-based surveillance of cataract surgical need and performance will also help program planners to address the growing need for eye care.<sup>31</sup> Cataract surgical coverage is a useful indicator of access to health services by elders.

Monitoring and audit of cataract surgery can sensitise surgeons to quality control and to their own surgery rate, decrease complication rates and improve visual outcomes. There is currently no mechanism for cataract surgical audit or accountability in Sri Lanka and there is no recognition or incentive for those who contribute to increasing the cataract surgical coverage rate in the country.

There is a lack of coordination of eye care services at district level. In Nuwara Eliya, a Program District Eye Care Committee has met quarterly to plan and guide the Better Vision, Healthy Ageing Program's eye care service activities. Establishing district eye care committees with key health stakeholders could assist better planning and coordination of services.

Eye care 'camps' may be needed to provide services to elders who live in districts where there is no ophthalmologist. These 'camps' are often arranged outside the government health system by philanthropic ophthalmologists or community organisations, or non-governmental organisations. There is not always adequate follow-up of patients or coordination of care.

***'Blindness and visual impairment are not an inevitable part of ageing.'***

**RECOMMENDED ACTIONS****Establish a regular surveillance system of cataract surgical need and performance**

A system for population-based surveillance of cataract surgical need and performance would provide the Ministry of Health with valuable information for planning between national blindness surveys.

**Introduce a mechanism for cataract surgical audit and accountability of surgeons to increase cataract surgical rates and improve outcomes**

The Ministry of Health should regulate to ensure that records of cataract operations and outcomes are maintained for each Eye Unit. A peer-review process should be implemented to redress problems and recognise those with high rates of cataract surgery with good outcomes.

**Establish eye care committees in every district in Sri Lanka**

A District Eye Care Committee could be established in every district, which would meet quarterly to assess cataract surgery rates and outcomes, and distribution of glasses. The committee could comprise key health stakeholders such as the district ophthalmologists, Regional Director of Health Services, hospital director, ophthalmic technologists, Eye Unit Nursing Sister, District NCD Officer, community Medical Officers of Health and the District Elders' Committee leader.

**Establish a coordination mechanism for eye care 'camps'**

The Vision 2020 Secretariat should consider establishing a coordination mechanism for eye care 'camps'. Through such a mechanism, relevant district stakeholders could be informed of any eye care 'camps' in the area and plan follow-up and care coordination services appropriately.

**BETTER INTEGRATE EYE HEALTH, CHRONIC DISEASE AND HEALTHY AGEING POLICIES AND PRACTICES**

The importance of addressing the burden of chronic disease is receiving increasing attention at global, regional and national levels. Promoting healthy ageing and eliminating avoidable blindness have been neglected relative to their significance.

Eye health initiatives tend to be implemented through national Vision 2020 Programmes, and there may be a tendency to view Vision 2020 Programmes as responsible for eye health. The World Health Organization has noted that: 'There are many examples where eye care has been successfully provided through vertical initiatives, especially in low-income settings. It is important that these are fully integrated into the delivery of a comprehensive eye care service within the context of wider health services and systems.'<sup>32</sup> In addition, 'Eye health should be included in broader non-communicable and communicable disease frameworks, as well as those addressing ageing populations.'

There is a need for better integration of eye health policies and practices with efforts to prevent and manage chronic diseases, and with strategies for healthy and active ageing.

**RECOMMENDED ACTIONS****Develop integrated policies and plans to address population ageing and avoidable blindness in Sri Lanka, including establishing coordinating mechanisms for eye health, chronic disease and ageing stakeholders**

The national Vision 2020 Programme, the NCD Unit, and the Unit for Youth, Elders and Disabled should work together to guide the integration of eye health care with the prevention, detection and management of chronic diseases, and with healthy ageing efforts. Coordinating mechanisms could be set up at national, provincial and district levels in Sri Lanka.

***'Millions of people are blind simply because they live in poverty. In poorer countries, four out of five people who are blind don't need to be.'***

## SUMMARY OF RECOMMENDATIONS

To address the growing burden of avoidable blindness in Sri Lanka, the Ministry of Health, the national Vision 2020 Programme, the College of Ophthalmologists, the Sri Lanka Optometric Association, eye health organisations, the Ministry of Social Services, and development organisations should take action to:

1. Address barriers to seeking eye care by:
  - Scaling up peer eye health education programs in the community
2. Bring eye health care services closer to communities by:
  - Promoting implementation of the Eye Health Promoter model for community-based vision screening through Elders' Clubs or other community organisations
  - Increasing numbers of primary health care workers trained in basic vision screening
  - Establishing a system for the distribution of low-cost glasses in the community
3. Introduce new ways to increase the eye health care workforce of eye surgeons, ophthalmic technologists, and community eye health specialists by:
  - Introducing a non-consultant specialist grade
  - Supporting ophthalmology trainees to conduct minor eye surgery under supervision
  - Increasing the intake of ophthalmology trainees
  - Investing in training courses for ophthalmic technologists and optometrists
  - Introducing a new sub-specialty of Community Eye Health Specialists
4. Improve cataract surgery waiting lists, follow-up rates, and operating facilities at hospitals and Eye Units by:
  - Introducing guidelines for prioritising patients with severe visual impairment and waiting lists for cataract surgery
  - Introducing incentives and patient education to encourage patients to return for follow-up
  - Making better use of existing operating theatre space and investing in new Eye Units for surgery
5. Improve monitoring, coordination and accountability mechanisms for eye care by:
  - Establishing a regular surveillance system of cataract surgical need and performance
  - Introducing a mechanism for cataract surgical audit and accountability of surgeons to increase cataract surgical rates and improve outcomes
  - Establishing eye care committees in every district in Sri Lanka
  - Establishing a coordination mechanism for eye care 'camps'
6. Better integrate eye health, chronic diseases and healthy ageing policies and programs by:
  - Developing integrated policies and plans to address population ageing and avoidable blindness in Sri Lanka, including establishing coordinating mechanisms for eye health, chronic disease and ageing stakeholders

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