

## Guest editorial

### The Right to Sight

By Professor Brien Holden

Chairman, International Centre for Eyecare Education

Director, Cooperative Research Centre for Eye Research and Technology, and Cornea and Contact Lens Research Unit, School of Optometry, The University of New South Wales

An initiative designed to eliminate avoidable blindness by 2020 is being launched around the world this year.

*Vision 2020: the Right to Sight* is a worldwide concerted effort designed to eliminate avoidable blindness by 2020. The program, established by an alliance of the World Health Organisation, the International Agency for the Prevention of Blindness and the Partnership Committee of the International Non-Government Development Organisations, is designed to enable all parties and organisations involved in combating blindness to work in a focused and co-ordinated way.

The mission of the program is to eliminate the main causes of blindness to give all people in the world, particularly the millions of needlessly blind, the right to sight. Vision 2020 aims to:

1. Increase awareness of blindness as a major public health issue.
2. Control the major causes of blindness.
3. Train ophthalmologists and other eye care personnel to provide appropriate eye care.

4. Create an infrastructure to manage the problem.

The challenge of world blindness is considerable. Every five seconds one person in the world goes blind, and a child goes blind every minute. It is estimated that at least seven million people go blind every year. Currently there are nearly 45 million blind people and 135 million with low vision, comprising a total of nearly 180 million people with some degree of visual impairment.<sup>1</sup>

Blindness has an enormous personal, social and economic cost, limiting the education and life choices of otherwise healthy people and placing a significant burden on family, community, and social and health services. Blindness is also associated with lower life expectancy. While it often goes unrecognised, the direct global economic burden of blindness is US\$25 billion and this figure could double or triple if indirect costs are considered.

Developing countries have the highest rates of avoidable blindness, with 90 per cent of the world's blind living in developing countries. People who live in the developing world are 10 times more likely to go blind than people who live in highly industrialised countries.

The good news is that 80 per cent of the world's blindness is avoidable, and the treatments available for the prevention and cure of blindness are among the most

successful and cost-effective of all health interventions.

Vision 2020 will address the five most severe and amenable causes of blindness:

- cataract
- trachoma
- onchocerciasis
- childhood blindness
- refractive error and low vision.

#### Vision 2020 Australia

National organisations and individuals are involved in the development and establishment of Vision 2020 programs within each country. *Vision 2020: the Right to Sight Australia* has been formed to design programs to implement the Global Vision 2020 Program within Australia.

Despite the availability of technological, financial and human resources, a significant number of Australians face unnecessary vision impairment and vision loss. *Vision 2020 Australia* will target vision in mainstream and Aboriginal communities and will encourage Australian efforts in international eye care. The group will play an advocacy and organisational role in Vision 2020 activities.

#### MAINSTREAM AUSTRALIA

The issues targeted by the global Vision 2020 efforts such as childhood blindness and onchocerciasis are not a significant problem in mainstream Australia, therefore the emphasis of *Vision 2020 Australia*

will be on addressing issues and conditions affecting Australians.<sup>2</sup>

#### **Cataract**

At present, 122,000 cataract operations are performed each year in Australia, costing \$378 million, and 29,800 people have visual impairment due to cataract. The need for surgery will double in 20 years due to the ageing population. We know that high UV exposure and smoking increase the risk of cataract. *Vision 2020 Australia* aims to promote protective behaviour, including stopping smoking and reducing UV exposure, to detect those with cataract through aged care vision tests and to improve efficiency of cataract surgery services.

#### **Uncorrected and under-corrected refractive error**

Surprisingly, 180,000 Australians have visual impairment due to under-corrected refractive error, which could be eliminated with appropriate glasses. *Vision 2020 Australia* aims to have all Australians test their vision regularly every four to five years, to have all elderly Australians tested for vision as part of aged care assessment and to establish appropriate referral pathways for those detected with poor vision.

#### **Diabetes**

In Australia, there are 400,000 known diabetic patients. Most do not have regular eye examinations, even though up to 98 per cent of severe vision loss can be prevented with early and appropriate treatment. It is believed that lack of awareness and communication breakdown are the major impediments to diabetic people receiving appropriate eye care. *Vision 2020 Australia* aims to ensure that every person with diabetes has their eyes examined every two years, to ensure good referral links are in place and to ensure ophthalmic treatment follows clinical practice guidelines.

#### **Macular degeneration**

As with cataract, our ageing population is having considerable impact on the rate of certain ocular conditions. Two out of every three people will develop age-related

macular degeneration (AMD) and one person in four will suffer loss of sight because of AMD. Unfortunately, there is no effective treatment or prevention for AMD, although it is thought that AMD may have a genetic basis. Twenty per cent of AMD may be due to smoking and sun exposure may also be a risk factor. *Vision 2020 Australia* aims to develop new treatment strategies and to develop optimal rehabilitation for all those with vision loss.

#### **Glaucoma**

In Australia 126,000 people have glaucoma, half of whom have not been diagnosed. One person in seven will develop glaucoma, but if detected early and treated effectively, the loss of vision can be prevented or delayed. *Vision 2020 Australia* aims to detect all people with glaucoma, elucidate the genetic basis of glaucoma, and improve treatment modalities.

#### **Low vision**

Of the approximately 400,000 Australians with impaired vision, only one-third access rehabilitation services. The impact of impaired vision can lead to loss of confidence, self-esteem and independence, and people with impaired vision are at an increased risk of injury, particularly due to falls. *Vision 2020 Australia* aims to promote awareness and education of the general public and health care professionals regarding the need for low vision care, to detect and refer people with low vision and to ensure all Australians have access to appropriate low vision services and devices.

#### **ABORIGINES AND TORRES STRAIT ISLANDERS**

Eye care is one of the focuses of Aboriginal health care efforts. People, particularly in rural and remote communities, are losing their vision because of entirely preventable or treatable causes and a number of eye care issues, such as diabetes, disproportionately affect the Aboriginal community. Efforts need to be made to ensure that eye care services are readily available and relevant to Aboriginal and Torres Strait Islander people. The main eye care priorities for Aboriginal and Torres Strait Islander people include:

#### **Cataract**

Cataracts occur more frequently in the Aboriginal and Torres Strait Islander populations. However, at present only 200 to 250 cataract operations each year are performed for these populations. At least 2,500 operations are needed each year to clear the backlog of cataract blindness and to treat new cases. *Vision 2020 Australia* aims to have cataract surgery provided routinely at a regional level and to promote the development of clinical practice guidelines to improve the quality of surgical outcomes.

#### **Trachoma**

Many Aboriginal communities still have the same incidence of trachoma as they had 20 years ago, with 50 to 70 per cent of all children in some communities experiencing active trachoma. In some communities, one in five elderly people have trichiasis, which may cause corneal scarring and blindness. *Vision 2020 Australia* aims to provide adequate screening programs to provide an integrated primary health approach to manage trachoma and to promote the WHO SAFE strategy.

#### **Uncorrected and under-corrected refractive error**

Aboriginal and Torres Strait Islander populations have refractive problems similar to those of the general population. However, access and utilisation of low-cost glasses through State and Territory spectacle schemes is poor. *Vision 2020 Australia* aims to provide access to ready-made reading glasses in Aboriginal communities, to improve access to low-cost glasses through existing schemes and to review the effectiveness of visiting optometrist schemes in meeting refraction needs, particularly in remote areas.

#### **Diabetes**

The incidence of diabetes in Aboriginal and Torres Strait Islander populations is 10 times that of the general population, therefore, diabetes is likely to overtake other eye disease as the main cause of blindness in Aboriginal and Torres Strait Islander populations. *Vision 2020 Australia* aims to encourage the practice of regular

eye screening and appropriate follow-up to establish clinic guidelines for diabetic retinopathy to provide appropriate regionally based equipment and training for the management of diabetic retinopathy.

### **Vision 2020 Australia participants**

The Australian group comprises organisations in Australia and subsidiaries of international organisations, including:

Association for the Blind, WA  
 Australian Blind Federation  
 Australian Council for Overseas Aid  
 Blind Citizens of Australia  
 Centre for Eye Research Australia  
 Christian Blind Mission International  
 Commonwealth Department of Health and Aged Care  
 Cooperative Research Centre for Eye Research and Technology  
 Deaf Blind Association  
 Department of Ophthalmology, Prince of Wales Hospital  
 Diabetes Australia  
 Eye Research Foundation  
 Flinders Medical Institute  
 Foresight  
 Fred Hollows Foundation  
 Glaucoma Australia  
 Guide Dogs Association  
 International Association of Contact Lens Educators  
 International Centre for Eyecare Education  
 International Diabetes Institute  
 Lady Nell Seeing Eye Dog School and Rehabilitation Centre  
 Laila Foundation  
 Lions Eye Institute WA  
 Lions SightFirst  
 National Aboriginal Community Controlled Health Organisation  
 Optometric Vision Research Foundation  
 Optometrists Association Australia  
 Queensland University of Technology  
 Retina Australia Inc  
 Royal Australian College of Ophthalmologists  
 Royal Blind Foundation of Queensland Inc  
 Royal Blind Society of NSW  
 Royal Institute for Deaf and Blind Children

Royal Society for the Blind SA  
 Royal Victorian Institute for the Blind  
 Royal WA Institute for the Blind  
 RP Fighting Blindness Foundation of South Australia  
 Save Sight Institute  
 Scan Optics  
 Seeing Eye  
 Victorian College of Optometry  
 Villa Maria Society for the Blind  
 Vision Australia Foundation  
 VisionCare NSW  
 Vision Queensland  
 World Blind Union  
 World Vision Australia

*Vision 2020 Australia* is an exciting opportunity to significantly advance Australian eye care. The partnership encourages all Australian practitioners to support or become involved with Vision 2020 activities.

### **REFERENCES**

1. World Health Organisation. *Introducing Vision 2020: the Right to Sight*. 1999.
2. Taylor HR, Livingston PM, Stanislavsky YL, McCarty CA. Visual impairment in Australia: Distance visual acuity, near vision, and visual field findings of the Melbourne Visual Impairment Project. *Am J Ophthalmol* 1997; 123: 328-337.