

## Milestones in blindness prevention in India

The International Agency for the Prevention of Blindness is having its 9<sup>th</sup> General Assembly in India. It gives me great pleasure to edit a special issue of the Indian Journal of Ophthalmology for this occasion. India was the first country to launch a National Program for the Control of Blindness, in 1976. While public health approaches to communicable diseases and epidemics were applied more than 100 years ago, they have been relatively recently used in combating blindness and disability. The first national survey on the causes of blindness revealed cataract to be a major cause. The existing national trachoma control program was thus converted into a national blindness control program with emphasis on cataract surgery. The Alma Ata declaration of 'Health for All by 2000' was accepted and one of the national goals was to reduce prevalence of blindness from 1.4% to 0.3% by the year 2000. The Government of India and World Health Organization's national survey of blindness in 1986–1989 again reaffirmed cataract as the major cause of blindness and the World Bank-assisted cataract surgery program was started to combat this avoidable blindness. The Aravind Eye Hospital pioneered their high-quality high-volume cataract surgery model with emphasis on out-reach diagnostic camps and reach-in model for surgery.<sup>[1]</sup> The efforts of international and national nongovernmental organizations (NGO), private and government partnership culminated in VISION 2020—the Right to Sight program which was launched in the 6<sup>th</sup> general assembly in Beijing in 2000.<sup>[2]</sup> With better public, private and NGO coordination, India's cataract surgery figures rose dramatically from about a million in the early 1990s to more than 6 million by 2010.<sup>[3]</sup>

The Andhra Pradesh Eye Disease Study with its meticulous and comprehensive approach demonstrated that almost 50% of blindness was due to causes other than cataract.<sup>[4]</sup> The study and others showed that quality of cataract surgery needed to be improved a lot.<sup>[4]</sup>

The Rapid Assessment of Avoidable Blindness in India (RAAB) India study revealed cataract, glaucoma, refractive errors, and corneal opacity as a major cause of blindness and low vision in India.<sup>[5]</sup> Refractive errors were earlier not seriously considered as the cause of blindness and visual impairment as the definition used was best corrected visual acuity and not available correction. But two large studies showed that provision of simple pair of spectacles could reduce visual impairment in children by two-thirds and combating this easily treatable cause of avoidable visual impairment has become a priority.<sup>[6,7]</sup>

The Indian Journal of Ophthalmology has had a section on community ophthalmology for the past two decades and has contributed significantly to global community eye care research. Previous editors need to be acknowledged for this and our editorial team is carrying forward their baton.

The developed world has retinal and optic nerve disorders as major causes of blindness and visual impairment. Once our eye banking system is established and cataract surgery outcomes further improve, this may be the Indian scenario too. Glaucoma is still a major blinding condition and education, both of patients and ophthalmologists seems to be the only way to combat this blinding disease in the long run.<sup>[8]</sup>

Diabetes is a major cause of morbidity worldwide and is becoming a leading contributor to blindness prevalence. While previous studies had shown diabetic retinopathy to cause less than 1% of blindness, recent surveys reveal it as an emerging cause of blindness rapidly ascending the chart of causes of avoidable blindness in India and worldwide.<sup>[9,10]</sup>

Childhood blindness has been a special cause for concern as children with visual impairment have many years of blindness ahead of them. India's pattern of childhood blindness is now becoming more of middle-income country with congenital anomalies, retinopathy of prematurity, and cataract being the common causes but many parts of the country like north-eastern states still have corneal conditions—vitamin A deficiency, infection, and trauma as a significant cause of blindness.<sup>[11-13]</sup>

We need a holistic and comprehensive approach to tackling blindness starting from ophthalmic education itself. The Vision 2020 has set laudable goals for blindness amelioration. The motto of this meeting 'excellence with equity' neatly sums up what is needed to be done. Ophthalmologists and other primary eye care practitioners need to gear up to this challenge. The vision center approach with a pyramidal shaped health care system can focus as an equitable and comprehensive eye care approach to tackle all causes of blindness and visual impairment.<sup>[14]</sup> The team of the Indian Journal of Ophthalmology remains committed to helping, funding, and disseminating research in blindness prevention and control.

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