

## Indian community eye care in 2020: Achievements and challenges

The Vision 2020 Global Initiative, which was launched at the turn of the millennium, seeks to realize a world in which “nobody is needlessly visually impaired,” and where “those with unavoidable vision loss can achieve their full potential.” At its inception, it aimed to intensify and accelerate the prevention of blindness activities so as to achieve the goal of eliminating avoidable blindness by 2020. In the culmination year of Vision 2020: Right to Sight-India, we need to reflect and assess the status of eye health care in the country. The overall achievements seem impressive with the implementation of a series of measures under the ongoing National Program for Control of Blindness and Visual Impairment (NPCB and VI).

India recently released the report of the National blindness and visual impairment survey, which is the largest ever RAAB (Rapid Assessment of Avoidable Blindness) survey representing 31 districts across 24 states in India. The survey provided the most reliable current estimates of blindness and visual impairment in the country. NPCB is also launching the “India Vision Atlas” to provide data of the National blindness and visual impairment survey. This will enable all stakeholders to make evidence-based decisions when formulating policies and programs to eliminate avoidable visual impairment. It is undeniably a commendable feat that India is able to achieve the WHO Universal Eye Health: Global Action Plan 2014-19 targets to reduce the prevalence of avoidable visual impairment by 25% by 2019 compared to the baseline prevalence of 2010. The achievements of the last decade have been fascinating, with India reaching the target reduction of blindness and VI by nearly 47% and 52%, respectively, which is indeed praiseworthy. Based on this survey, the extrapolated number of visually impaired people in India are reduced to nearly 34 million compared to WHO estimates of 62 million in 2010. There is anecdotal evidence to suggest that the increase in the prevalence of blindness and visual impairment has been reversed in recent years, despite the ever-increasing and more elderly population.

In spite of the significant reduction in the burden of blindness, untreated cataract remains the major challenge for the country. It is still persisting as the major cause of blindness and visual impairment since the inception of the national program. India has achieved high cataract surgical coverage and currently, nearly 65 lakh cataract surgeries are performed every year with an average cataract surgical rate of more than 5000 surgeries per million population per year. The participation of NGO hospitals under the program is significant with the majority of cataract surgeries being performed by the NGO sector. Still, it is evident that India needs to further continue and strengthen strategies to eliminate cataract blindness and visual impairment. For this, there is a need for planning at the local level for each district, based on the status of cataract blindness in the respective districts. State and district authorities should ensure the availability of trained cataract surgeons and infrastructure for quality cataract surgical facilities along with screening and referral of cataract

cases at primary level. Identification and treatment of cataract blind cases from remote and underserved areas should be a priority under the program. A few districts in the country with successful cataract blindness elimination programs have utilized ASHA and Anganwadi workers to identify cataract blind cases through house-to-house screening. Such initiatives should be extended effectively in other parts of the country for maintaining a registry of blind and visual impaired.

The quality of cataract surgery is also emerging as a major concern. Complications of cataract surgeries emerged as one of the leading causes of blindness in our country. It is our responsibility to improve the standard of training of ophthalmologists and ensuring the availability of newer technologies and equipment to all caregivers. The training program should include practical knowledge and hands-on training to handle operative cases under the close guidance of their trainers. At the end of the training, trainees should be able to do independent surgeries in their setup. The Vision 2020-Right to Sight has taken some appreciative steps in orienting institutes for NABH accreditation. The outbreaks of cluster endophthalmitis are not uncommon in our country. A comprehensive approach is required to avoid such events. Recent initiatives by AIOS in developing guidelines for investigation of cluster endophthalmitis are appreciative. In India, an actual assessment of the quality of cataract surgeries is not feasible due to the lack of robust data on cataract surgical outcomes. It is suggested that all institutes should maintain cataract surgical records with visual outcomes of cataract surgeries preferably in electronic medical record format.

Recent initiatives by the government of India under their flagship program, Ayushman Bharat, Prime Minister Jan Arogya Yojna (PMJAY) provides an effective approach for delivering equitable health services to even the most remote and impoverished communities, wherein the beneficiary family gets a defined benefit cover of Rs. 5 lakh per family per year. The beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country. It is a robust program which will benefit the poorest of the poor. It is essential that reimbursement of cataract surgery should remain an integral part of this program.

Another key initiative under the Ayushman Bharat program toward achieving universal health care is strengthening primary health care through the development of Health and Wellness Centers. The government plans to transform 1,50,000 Sub Health Centers (SHC), Primary Health Centers (PHC), and Urban Primary Health Centers (UPHC) as Health Wellness Centers by 2022. These centers will provide comprehensive health care services with eye care as an integral component. It is evident that a primary health care approach can accelerate progress against avoidable causes of visual impairment and blindness. Integration of noncommunicable disease and eye health care at the primary level will help counter a projected rise in both problems.

Corneal opacities have emerged as the second leading cause of blindness in the country. Urgent preventive and therapeutic measures are required to alleviate this increasing burden. It has been reported that nearly 90% of the global cases of ocular

### Key Findings of National Diabetic Retinopathy Survey among Population aged $\geq 50$ years

Indicators	Percentage
Examined population (out of 63000 enumerated)	90.1
Prevalence of diabetes in surveyed population	11.8
Prevalence of known diabetes (KD)	8.0
Prevalence of new diabetes (ND) - Random blood sugar $>200$ mg/dl	3.8
Prevalence of diabetic retinopathy (DR) among diabetics	16.9
Prevalence of mild retinopathy	11.8
Prevalence of observable retinopathy	2.6
Prevalence of referable retinopathy	1.9
Prevalence of proliferative retinopathy	0.6
Prevalence of diabetic maculopathy	7.0
Prevalence of observable maculopathy	3.6
Prevalence of referable maculopathy	3.4
Prevalence of sight threatening DR	3.6

RAAB survey conducted by Dr RP Centre for Ophthalmic Sciences, AIIMS, New Delhi for NPCB , Ministry for Health & FW ,Govt of India 2015-2019

trauma and corneal ulceration leading to corneal blindness occur in developing countries like ours. Curative efforts alone cannot solve this truly manageable public health problem. As eye care leaders, we need to adopt a health systems approach to explore strategies to strengthen prevention, including awareness raising, and postoperative care for corneal transplantation, as well as an enabling policy environment, to effectively tackle corneal blindness elimination. Considering the high cost, both direct and indirect, of a corneal ulcer and resulting blindness, investing in prevention may be the most cost-effective approach to reducing corneal blindness in India. Early intervention has the potential to restrict the growing number of corneal blind patients and identify patients for appropriate treatment and management.

The National Diabetic Retinopathy RAAB Survey 2015-2019, conducted by RP Center for Ophthalmic Sciences under the aegis of the Ministry of Health and Family Welfare Govt India clearly and significantly showed the Prevalence of Diabetic Retinopathy among diabetics to be 16.9%, a reasonably high figure in a RAAB survey.

Trachoma was one of the leading causes of blindness in India in the past. But in the last decade, prevalence and rapid assessment surveys conducted all over the country provided concrete evidence that trachoma is no longer a public health problem in the country. Government of India declared the elimination of active trachoma among children but the prevalence of trachomatous trichiasis (TT) is still above the WHO elimination criteria. A multipronged strategy has been implemented by NPCB and VI in consultation with

WHO to eliminate trachomatous trichiasis from the country in the next 2-3 years. This includes a nationwide surveillance program for trachoma and SAFE strategy implementation. In nearly 200 districts often previously hyperendemic states and union territories, TT prevalence surveys will be conducted in all these districts to provide evidence in order to WHO: GET 2020 goals for trachoma elimination.

I am glad that the current edition includes a supplement on the work carried out by the Queen Elizabeth Diamond Jubilee Trust. The Trust has been involved in establishing a model for various services related to diabetic retinopathy and ROP screening. Vision loss from DR is avoidable through early detection coupled with effective treatment strategies such as intravitreal anti-vascular endothelial growth factor injections and laser therapy. Poor awareness regarding the health-seeking for a fundus eye examination is observed among most of the diabetics in our country. Primary level awareness programs along with cost-effective screening through nonmydriatic fundus camera integrated with teleophthalmology or artificial intelligence should be implemented at a large scale in our country. The Queen's Trust program has shown effective models for screening of retinopathy of prematurity in neonatal intensive care units (SNCUs) at the district level and providing them timely and effective treatment in the form of anti-VEGF and laser.

The overall report card in relation to the reduction of visual impairment seems impressive but we still have challenges to conquer (and miles to go before we sleep) to achieve the goals set by the World Health Organization through Universal Eye

Health released in the World Report for Vision, 2019. In order to achieve universal eye health coverage, there is a need for stronger integration of eye care within the health care delivery system at all levels with special emphasis on primary health care level. The eye care services should be people-centric and must be provided closer to communities to achieve their maximum potential.

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### Prof. Atul Kumar

Prof. Atul Kumar underwent residency training in Ophthalmology, followed by senior residency at the Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi. He began his luminous academic career as an Assistant Professor at the Retina Unit at RPC-AIIMS in 1987. He further trained in Retina with a fellowship from the University of Maryland, Baltimore, USA, 1991. Very early in his career, he won the Best Scientific Paper Award at the All India Ophthalmological Society Annual Meeting in 1994 and the International Council of Ophthalmology-Nakajima Award. Prof Atul Kumar has been a Member of the Editorial Board of Indian Journal of Ophthalmology (IJO). Currently, he is the Honorary Editor of IJO. Prof. Atul Kumar has 306 publications to date. His achievements include Fellowship of the National Academy of Medical Sciences, India, 2006; Fellowship of Royal College of Surgeons, Edinburgh; prestigious Padma Shri Award by the President of India for his contribution to healthcare in the field of Vitreo-Retinal Diseases and Surgery, 2007; Honorary Vitreo-Retinal Consultant to the Armed Forces, 2015; appointed Advisor, Ophthalmology, Government of India, 2016; and BC Roy Award for Medical Sciences, 2016. He is presently the Chief and Professor at RPC-AIIMS, the National Apex Institute for Ophthalmology. In this role, he has envisioned and spearheaded the rapid pace of development of RPC-AIIMS into one of the very best in the World for patient care, academics, research and training. He has played a pivotal role in spearheading the National Blindness and Visual Impairment Survey and National Diabetic Retinopathy Survey, which were conducted by Department of Community Ophthalmology, R. P. Centre, AIIMS between 2015- 2019.