

Announcing *The Lancet Global Health* Commission on Global Eye Health



Eye health has profound and widespread implications for many aspects of life, health, sustainable development, and the economy. Yet many populations do not have access to good-quality, affordable eye care.

Worldwide there are more than 250 million people living with vision impairment, among whom 36 million are blind.¹ In addition, over a billion people have near-vision impairment, simply because they do not have a pair of reading spectacles. Eye conditions and the vision impairment they cause affect all stages of life, with increasing burden with age. Over the next 30 years, ageing and growth of the global population will lead to a tripling of people affected, with 700 million vision impaired and 115 million of these blind.¹ Critically, 80% of this sight loss is preventable or treatable, and 90% occurs in low-income and middle-income countries (LMICs). Sight loss has substantial economic implications for affected individuals, families, and communities, with global estimates of annual costs exceeding US\$ 3 trillion.²

Good vision facilitates many activities of daily life and improves education and employment opportunities. Available good quality evidence shows that improved eye health offers the potential to advance progress towards the Sustainable Development Goals (SDGs), including those pertaining to poverty, hunger, good health and wellbeing, education, gender equality, and decent work.³⁻⁵

Sight loss has many causes that require a range of promotive, preventive, curative, and rehabilitative interventions. Cataract, refractive error, age-related macular degeneration (AMD), glaucoma, corneal opacity, and diabetic retinopathy are responsible for the majority of global vision impairment.⁶ While interventions are available for these, there is a pressing need for research to improve detection, therapeutic efficacy, and implementation. Moreover, many of these interventions remain out of reach for millions living in underserved regions in LMICs as well as disadvantaged populations in high-income countries.

In the quest to achieve universal eye health, a critical obstacle is the major shortage and maldistribution of appropriately trained personnel, particularly in Africa and rural areas within LMICs in other regions.

Addressing this shortfall requires novel and scalable, evidence-based approaches to human capacity building and implementation of effective strategies to improve access to care. Mobile health, artificial intelligence, and distance-learning have already demonstrated the potential for existing cadres of health workers to deliver more, high-quality and equitably-distributed care.⁷

Strategic partnerships with natural allies in areas such as non-communicable diseases, education, and paediatrics, must be forged. Furthermore, the eye health sector can better utilise health promotion and prevention strategies to lessen the impact of eye disease and reduce inequality. Globally women are more likely than men to be vision impaired, and this pervasive gender inequality in eye health must be addressed.⁶

Our challenge is to develop and deliver comprehensive eye health services that cover the full range of health promotion, prevention, detection, management, and rehabilitation strategies, that are integrated into the general health system, people-centred, and aligned with the SDGs. Lessons from recent decades give hope that this challenge can be met. In 1999, VISION 2020, a global programme to address avoidable sight loss, was launched by WHO and the International Agency for the Prevention of Blindness. Although the total number of people with impaired vision has risen since the millennium due to population growth and ageing, the age-standardised prevalence has declined by 16%, indicating programme impact.⁸

However, at the same time there are new threats to global eye health, including the explosion of diabetic retinopathy worldwide, high myopia in Asia, and AMD in older people. With the projected increased magnitude of vision loss over the coming decades, urgent action is needed to achieve the substantial reductions in avoidable vision impairment called for by WHO in the World Report on Vision,⁹ published this week.

It is in this context that we are pleased to announce *The Lancet Global Health* Commission on Global Eye

Published Online
October 9, 2019
[https://doi.org/10.1016/S2214-109X\(19\)30450-4](https://doi.org/10.1016/S2214-109X(19)30450-4)

Health, whose report will appear in this journal on World Sight Day 2020. This Commission will:

- Analyse the current state of eye health in low-income, middle-income, and high-income countries
- Examine the implications of projected growth of global burden of eye disease and sight loss
- Provide updated estimates of the economic cost of vision impairment and the return on investment from efforts to improve eye health
- Identify knowledge gaps impeding design and delivery of better, more equitable services, through a global “Grand Challenges” exercise
- Make the political, social, and economic case for action to achieve real and lasting reductions in the global burden of avoidable vision loss
- Review established and novel, evidence-based strategies to deliver high-quality eye health services. These services should integrate well with existing health-care systems, should be mindful of environmental sustainability, and deliver services for all so that no one is left behind

The year 2020 marks the culmination of VISION 2020. This is a pivotal time for the global eye health community and its partners in health care, government, and other sectors to consider both the successes and challenges experienced through our shared efforts in recent decades. The Commission will weave together lessons learned with growing evidence for the life-transforming impact of eye care and a thorough understanding of research and technological developments in this field. The resulting report will be informed by broad consultation with experts within and outside of eye care. Alongside the World Report on Vision,⁹ the Commission will help to inform governments, communities, and other stakeholders about the route beyond 2020 to further the SDGs, including universal health coverage, by promoting a world without avoidable vision loss.

**Matthew J Burton†, Hannah B Faal†, Jacqueline Ramke, Thulasiraj Ravilla, Peter Holland, Ningli Wang, Sheila K West, Rupert R A Bourne, Nathan G Congdon, Allen Foster*
International Centre for Eye Health, London School of Hygiene & Tropical Medicine, London, UK (MJB, JR, AF); Moorfields Eye Hospital, London, UK (MJB); Department of Ophthalmology, University of Calabar, Calabar, Nigeria (HBF); School of Optometry and Vision Science, University of Auckland, Auckland, New Zealand (JR); LAICO, Aravind Eye Care System, Madurai, India (TR); International Agency for the Prevention of Blindness, London, UK (PH); Beijing Institute of Ophthalmology, Beijing Tongren Eye Center, Beijing Tongren Hospital, Capital Medical University, Beijing, China (NW); Dana Center for Preventive Ophthalmology, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD, USA (SKW); Vision and Eye Research Institute, School of Medicine, Anglia Ruskin University, Cambridge, UK (RRAB); Centre for Public Health, Queen’s University, Belfast, UK (NGC); Orbis International, New York, NY, USA (NGC); Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China (NCG)
matthew.burton@lshtm.ac.uk

†Commission Co-Chairs

We acknowledge funding support for the Commission from the Queen Elizabeth Diamond Jubilee Trust, the Wellcome Trust, the Seva Foundation, Sightsavers, the Fred Hollows Foundation, and CBM. We declare no competing interests.

Copyright © 2019 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

- 1 Bourne RRA, Flaxman SR, Braithwaite T, et al. Magnitude, temporal trends, and projections of the global prevalence of blindness and distance and near vision impairment: a systematic review and meta-analysis. *Lancet Glob Health* 2017; **5**: e888–97.
- 2 Gordo A, Cutler H, Pezzullo L, et al. An estimation of the worldwide economic and health burden of visual impairment. *Glob Public Health* 2012; **7**: 465–81.
- 3 Reddy PA, Congdon N, MacKenzie G, et al. Effect of providing near glasses on productivity among rural Indian tea workers with presbyopia (PROSPER): a randomised trial. *Lancet Glob Health* 2018; **6**: e1019–27.
- 4 Kuper H, Polack S, Mathenge W, et al. Does cataract surgery alleviate poverty? Evidence from a multi-centre intervention study conducted in Kenya, the Philippines and Bangladesh. *PLoS One* 2010; **5**: e15431.
- 5 Ma X, Zhou Z, Yi H, et al. Effect of providing free glasses on children’s educational outcomes in China: cluster randomized controlled trial. *BMJ* 2014; **349**: g5740.
- 6 Flaxman SR, Bourne RRA, Resnikoff S, et al. Global causes of blindness and distance vision impairment 1990–2020: a systematic review and meta-analysis. *Lancet Glob Health* 2017; **5**: e1221–34.
- 7 Rono HK, Bastawrous A, Macleod D, et al. Smartphone-based screening for visual impairment in Kenyan school children: a cluster randomised controlled trial. *Lancet Glob Health* 2018; **6**: e924–32.
- 8 International Agency for the Prevention of Blindness. Global vision database maps. <http://atlas.iapb.org/gvd-maps> (accessed Oct 7, 2019).
- 9 WHO. World Report on Vision. <https://www.who.int/publications-detail/world-report-on-vision> (accessed Oct 8, 2019).