

## GUEST EDITORIAL

## Will optometry respond to the growing challenge of providing evidence-based low vision care?

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\*†**Sharon A Bentley** BScOptom MOptom  
PhD GradDipSpecEd MPH FAAO

‡§**A Jonathan Jackson** BSc(Hons) PhD  
MCOptom FAAO FBCLA

\*Deakin Optometry, School of Medicine, Deakin  
University, Geelong, Victoria, Australia

† Australian College of Optometry, National Vision  
Research Institute, Carlton, Victoria, Australia

‡ Department of Optometry and Vision Sciences, The  
University of Melbourne, Parkville, Victoria, Australia  
E-mail: sharon.bentley@deakin.edu.au

This issue of *Clinical and Experimental Optometry* marks the occasion of Vision2014—The 11th International Conference on Low Vision. Included are two important reviews, a viewpoint addressing the state of optometric involvement in low vision care in Australia and an online link to selected abstracts from the conference. The conference was being hosted by Vision Australia and took place in Melbourne, 31 March to 3 April 2014. In fact, the third International Conference on Low Vision was held in Melbourne in 1990, the birthplace of multidisciplinary low vision care and the Bailey-Lovie logMAR acuity charts.<sup>1</sup> Since that time, the meeting has been held every three years, in cities around the world, as nominated by the International Society for Low Vision Research and Rehabilitation. It is a unique meeting that reflects the multidisciplinary nature of low vision care, bringing together more than 500 delegates representing the various professions involved (optometrists, orthoptists, occupational therapists, orientation and mobility professionals, information technology professionals, social workers, counsellors, educators, ophthalmologists, executives and researchers) as well as people with low vision. Much is gained by sharing experiences and lessons learned from each of these unique perspectives. The theme of this 11th meeting is 'Advancing Research, Upgrading Practice and Improving Participation'.

There is an impending epidemic that will soon challenge low vision care planners and providers. The proportion of older people in Australia will almost double over the next 40 years,<sup>2</sup> as it will globally.<sup>3</sup> As vision impairment is strongly age-related,<sup>4</sup> there will be an upsurge of people with at least mild to moderate uncorrectable vision impairment. The changing demographic will mean we will need to provide increased low vision care and services. People with low vision (visual acuity in the better eye worse than 6/12),<sup>4</sup> have every right to quality evidence-based care that is both accessible and affordable. The effectiveness of low vision rehabilitation has been clearly demonstrated in rigorous scientific studies over the past 10 years or so;<sup>5–8</sup> however, the translation of this evidence into optometric primary care settings has not been so effective. Although Australian optometrists are well trained in low vision care, surprisingly few actually provide any such care in their practices<sup>9</sup> and many people with low vision are not receiving care in comprehensive multidisciplinary settings, with only about 20 per cent receiving rehabilitation services.<sup>4,10</sup> Will optometrists respond to the escalating challenge and remedy the situation?

In Australia, the proportion of the population aged 65 years and over has been forecast to rise to between 23 and 25 per cent in 2056 (from 13 per cent in 2007).<sup>2</sup> Even more, the proportion aged 85 years and over has been forecast to more than double and reach between 4.9 and 7.3 per cent in 2056 (from 1.6 per cent in 2007).<sup>2</sup> Given that vision impairment trebles with each decade over 40 years, it follows there will be a corresponding rise in the prevalence of vision impairment.<sup>4,10</sup> Although there have been tremendous advances in the medical management of ocular disease and new treatments have been developed for some conditions, these will not mitigate the

prevalence of permanent age-related vision impairment.<sup>11</sup> Recent advances in the control of glaucoma and ocular applications of treatment with anti-vascular endothelial growth factor may limit disease progression but they do not reverse the disease processes. Gene therapy, stem cell treatment and prosthetic vision, all topics presented at Vision2014—The 11th International Conference on Low Vision, are promising but remain experimental and rudimentary.<sup>12–18</sup> While there might be fewer people with severe impairment in the future, there will be more people with mild to moderate vision impairment.<sup>19,20</sup> Mild to moderate impairment is amenable to visual rehabilitation that ideally can be provided and managed by optometrists in practice. Optometrists can assess visual functions and prescribe optimal optical devices and electronic vision-enhancement systems, which are suited to a patient's visual and personal needs. As well as having the knowledge and skills required, optometrists are easily accessible to people in most regions of Australia. Furthermore, at the local level, optometrists have good relationships with other health-care and service providers and can act as case co-ordinators, if referral for comprehensive low vision rehabilitation is required.

In this issue of *Clinical and Experimental Optometry*, the Optometrists Association Australia Low Vision Working Group (OAA LVWG) present their views on why this does not often occur and propose a plan to advance low vision service provision by optometrists.<sup>21</sup> The view of the Working Group is that the main professional barriers to low vision service provision are:

1. declining referrals for low vision services
2. low vision care in early stages not being viewed as basic optometry
3. lack of awareness among ophthalmologists about what optometrists can do for patients with low vision

4. optometrists providing low vision care not being adequately remunerated for their skills and time
5. lack of recognition that optometrists can provide excellent low vision services and have a central role as case managers and
6. lack of a professional peer support and mentoring group in low vision optometry.

To overcome these barriers and facilitate change in Australia, the group suggests the need to gather evidence and develop policy, support optometric low vision education, engage with key stakeholders and improve remuneration. Toward that end, they suggest a review of policies and models of care in other countries.

The invited review<sup>22</sup> in this issue by Barbara Ryan, who has played a key role in the development of a new and successful model of low vision care in Wales, presents a judicious summary of the history and various models of low vision care that exist around the world. Regrettably, many countries still do not have any low vision services. In countries that do, there has been a move away from a solo optometrist to a holistic approach, wherein optometrists are part of a multidisciplinary team, such as the Kooyong Low Vision Model developed in Melbourne, Australia. Ryan describes various other existing multidisciplinary models, including hospital-based services, in-patient services (for example, the USA Veteran Affairs Services), government-funded low vision care by community optometrists linking with other community professionals and voluntary organisations (for example, the Welsh model), self-management education programs and a primary/secondary/tertiary tiered system (for example, the World Health Organization model).<sup>22</sup> Although each model has its advantages and disadvantages, it does not seem that any one model is entirely effective, given the number of people with low vision who would benefit but remain without low vision services in the countries where these models operate. What is apparent is that best practice is to develop easily accessible, affordable multidisciplinary services, which should be designed and delivered as inter-agency partnerships and appropriately funded by government and the health insurance sector.

While we contend with the growing number of older persons with vision impairment, we must not forget children and

younger adults with vision impairment. Many live a long time with an impairment that can have considerable impact on education, employment and quality of life. Appropriate early detection, intervention and support are critical. The review<sup>23</sup> by Swetha Philip and Gordon Dutton offers comprehensive and invaluable insights for optometrists providing care to young people with complex needs arising from cerebral vision impairment, from detection through to management. Approximately two-thirds of all visually impaired children will have other disabilities, the majority of which will be of neurological origin. Philip and Dutton<sup>23</sup> highlight the increased prevalence of mild to moderate vision impairment among children with cerebral palsy and hydrocephalus and the visual perceptual problems experienced by many children with autistic spectrum disorder. They also emphasise the importance of multi-professional involvement in assessment and management plans for these children. Optometrists skilled in refraction and the assessment of visual functions can contribute appreciably to these multi-professional teams.

These matters and more are presented and discussed in the selected abstracts of Vision2014—The 11th International Conference on Low Vision. Leaders in low vision service delivery and research offer their perspectives on models of low vision care, as well as other topical issues and research in the field, such as the explosion in technological assistive devices, which Ryan<sup>22</sup> notes will shape future models of care. Among others, topics include, ageing and low vision, driving with low vision, falls, dual sensory loss, neurological vision impairment, cerebral vision impairment, epidemiology, service delivery, standards for comprehensive vision rehabilitation, research in low vision, the role of occupational therapy, orientation and mobility, psychosocial aspects of low vision, paediatric low vision, employment, client outcomes, visual function, activities of daily living, reading, optical and electronic devices, quality of life, education for all, workforce and professional development, sport, environmental factors, advocacy, information access, medical and surgical management and bionic implants.

Within Australia, the challenge is to capitalise on what is currently high-quality undergraduate optometric low vision training, by facilitating the involvement of qualified optometrists in the provision of quality-assured evidence-based low vision

care. Much can be learned from the Welsh model developed by Ryan and her colleagues. There is every possibility that a similar model could be adapted to reside within existing state-based government-supported eye-care services, such as the Victorian Eyecare Service. Fundamental to the successful implementation of such a model is the development of effective inter-professional communications between optometrists and general practitioners, occupational therapists, orientation and mobility professionals, information technology professionals, social workers, counsellors and educators at the community level. Where organisations provide low vision services, local optometrists and optometry associations must engage in such a way as to ensure that the refraction, visual functions assessment and optical expertise that optometrists can contribute are fully integrated. Fundamental to ensuring that people with low vision both know about and access low vision services, is greater involvement of optometrists in the provision of secondary-care services. Through the expansion of hospital-based optometric services, which often includes the provision of low vision care (as seen across the United Kingdom and in Tasmania, Australia), medical professionals will understand, not only the benefits of low vision services but the importance of early intervention. To step up to these challenges, the profession must take post-graduate low vision education seriously, incorporating it into all state and national optometric continuing professional development programs. It must also support and encourage those optometrists seeking to improve the evidence base through quality research.

Do we believe optometrists in Australia will respond to the challenges in low vision care that lay ahead? Yes, the profession has successfully responded to many challenges over the years and plays a critical role in delivering accessible eye care to the Australian community. As a profession we need to create a model of care that is cost effective and embraces all Australians with vision impairment, including people of all ages, with multiple impairments, who live in rural or remote regions, from culturally and linguistically diverse groups and people who are Indigenous, to name a few. For now, as an individual optometrist, rise to the challenge, recognise the low vision patient, provide basic low vision care in your practice and refer to multidisciplinary low vision

service providers for comprehensive care where appropriate. You can change a person's quality of life.

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