

A View to Ensure Canada's

Competitiveness & Economic Growth

Dr. Michael Dennis, BSc, OD, President

July 2018

Recommendation

That the Government of Canada commit to a National Eye Health and Vision Care Strategy to promote eye optimal health and prevent vision loss for all Canadians.



The Canadian Association of Optometrists (CAO) is the national voice of optometry, dedicated to collaboratively advancing the highest standard of primary eye care through the promotion of optimal vision and eye health. Thank you to the Committee for the opportunity to contribute to its examination of how to ensure Canada's competitiveness.

There is significant evidence that proves that a healthy population contributes to, rather than results from, economic growth. A healthy population means a healthy workforce, able to pay taxes and spend money. Ensuring a healthy population requires investment in diagnosis and treatment, but also in prevention, which is recognized as a cost-effective way of avoiding a costlier spend down the line.ⁱ

A National Eye Health and Vison Care strategy that supports optimal eye health and vision care for Canadians not only improves population health by circumventing costlier treatment and interventions within the health care system, it also has a positive impact on employment rates, productivity and economic growth. **Vision health, therefore, must be a priority in economic discussions.**

Eye Health and Vision Care in Canada

6 in 10 Canadians report having a vision problem; anything from a simple refractive error requiring a prescription for eyeglasses or contact lenses, to a more complex diagnosis of glaucoma, the leading cause of irreversible blindness. In 2017, the Canadian Institute of Health Information (CIHI) reported that Canadians spent \$4.8 billion – 2% of all health care spending in Canada - on vision services.ⁱⁱ Any degree of progressive vision loss is associated with increased costs in the health system and to the overall economy.ⁱⁱⁱ This is especially significant considering:

- Increased rates of injury and physical trauma (e.g. falls) and motor vehicle accidents, particularly for older adults.^{iv}
- 90% of vision loss costs are non-eye related medical costs^v (everything from palliative care, to occupational therapy, to accessible public transit services).
- Vision loss is more common in new immigrants than the Canadian-born population.^{vi}
- 34% of Indigenous persons with diabetes indicate the disease affected their vision.^{vii}
- There are more than 2000 eye injuries a day in Canada.^{viii}
- People with vision loss are at greater risk of social isolation and reduced community participation.^{ix}
- People with vision loss have more complex needs and comorbidities (e.g. diabetes, hypertension, physical and cognitive disabilities^x).

The cost of vision loss, therefore, extends across the economy. Each year in Canada, \$15.8B is spent on the direct costs associated with vision loss.^{xi} However, of more significance is the \$8.1B



spent on indirect costs^{xii}, of which lost productivity – largely attributable to a low employment rate - represents the single largest component, at \$4.4B (or 54%) annually.^{xiii} It is estimated that 10% of indirect costs, or \$440M, is attributable to lost productivity for those acting as caregivers for those with vision loss.

In 2016, almost one million Canadians missed work or school or had their performance affected by vision problems.^{xiv} Lower educational attainment and employment rates, higher absenteeism, decreased salary, injury, premature retirement, lower socioeconomic position and poorer health and life chances are all associated with poor visual function.^{xv} Optometrists know that these financial consequences can be reduced, because 75% of vision loss is preventable or treatable.^{xvi}

Research^{xvii} confirms the cost benefit of comprehensive eye exams in the early detection of vision problems. Research further demonstrates that primary eye care provided by optometrists, as contrasted with family physicians or ophthalmologists, is both cost effective and an efficient use of health resources.^{xviii} The right health care professional in the right place at the right time is an economic formula that bears being put to the test.

A National Eye Health and Vision Care Strategy can minimize the economic impact of poor eye health and vision care, while maximizing the health outcomes and economic benefits for Canadians. Ensuring optimal eye health and vision care in specific populations provides demonstrable examples of positive immediate and long term economic effects of a national strategy.

Children:

CAO recommends that infants and toddlers have their first eye exam between the ages of 6 and 9 months, with follow-up exams between the ages of 2 and 5 years, and annual exams for school age children and youth.^{xix} Early detection, diagnosis and interventions for eye conditions reduce barriers for early childhood learning. While universal comprehensive eye examinations before entering pre-school are more cost-effective for amblyopia detection than a universal screening program^{xx}, the lack of a public health requirement for these examinations creates a barrier to appropriate care. Improving public education and awareness of the value of comprehensive eye exams, as well as increasing access to them improves population health outcomes and contributes to school success, educational attainment and ultimately a stronger economy.

Adults:



Health policy and interventions often focus on visual impairment or blindness. However, the impact of poor vision on individuals and the economy is also evident in their social and economic position.^{xxi}

Statistics Canada's Canadian Survey on Disability^{xxii} reports:

- 83.1% of vision disabilities for Canadian adults are due to refractive error, corrected by wearing glasses or contact lenses.
- The employment rate for adults with vision disabilities was 37.6% versus 73.6% of adults without any disability.
- The median income for adults with vision loss is significantly less than the employment rate for adults without a disability (\$23,000 and \$34,100 respectively).
- Government transfers are a major source of income for adults with vision loss, with the median transfer being five times higher than for adults without a disability (\$8,500 compared to \$1,600 respectively).

Aging Canadians:

In 2015, the number of Canadians over age 65 working full time was nearly 6%, while 20% worked part time.^{xxiii} Statistics Canada suggested this was attributable to higher levels of education and an increase in the debt levels of older Canadians. With more Canadians participating in the workforce for a longer period of time, ensuring eye health and reducing vision loss will have a significant impact on the economy. In 2008, Access Economics conducted the most comprehensive economic analysis of vision loss in Canada to date, estimating the cost for the four most prevalent age-related eye health conditions.^{xxiv}

- Age-related Macular Degeneration (AMD): \$1.12 billion (includes medical and nonmedical costs like equipment and aids)
- Glaucoma: \$549 million
- Cataract surgery: \$136.6 million (and an estimated \$481 million in hospital overhead costs)
- Diabetic retinopathy: \$207.7 million

Ongoing treatment and prevention of eye disease are essential to facilitate contributions by aging Canadians to their families, communities, workplaces, and society.

Early detection and treatment is key to addressing eye health and vision issues. We have an opportunity to take action now to ensure comprehensive eye health and vision care for all



Canadians, but more specifically, to respond to those Canadians for whom 75% of their vision issue can be treated or prevented.

Insight into our Recommendation

Canadian optometrists maintain that by committing to a National Eye Health and Vision Care Strategy that promotes eye health and prevents vision loss to the benefit of all Canadians, the Government meets its April 2018 commitment to the Commonwealth Heads of Government to take action to achieve access to quality eye care for all.

Public education and a focus on disease prevention are cost-effective examples of initiatives that have a positive impact on both individual and societal health. For example, Australia's *National Framework for Vision Health* is a comprehensive, government-led initiative that focuses on eye health promotion and prevention of avoidable blindness and vision loss. Building on that model, a National Eye Health and Vision Care Strategy in Canada led by the federal government working collaboratively with health professionals, non-government organizations, industry and individuals would include:

- 1. Development of a Pan-Canadian Framework for Action promoting effective population eye health and vision care to improve the quality of life and productivity of Canadians.
- 2. Funding research on the social and economic burden of vision loss; future treatments and cures; vision rehabilitation; and quality of life enhancements for people with vision loss and augmenting data collection to address existing limitations in fully understanding Canada's eye health issues.
- 3. Development of health policy that supports increased accessibility and utilization of comprehensive eye care in underserved populations (e.g. Indigenous Peoples).
- 4. Developing policy and funding for collaborative care models that create a culture of eye health as part of overall health and supports interdisciplinary, primary care teams.
- 5. Undertaking a public awareness campaign to encourage Canadians to think about their eyes and vision health.

Federal funding to promote integrated eye health and vision care through a national strategy that includes pilot projects can be used as a means of evaluating health outcomes. For example, tracking outcomes related to investment in the co-management of glaucoma can be used to demonstrate increased access to eye health care services, early detection to prevent vision loss and improvement in the continuity and quality of care for eye diseases that lead to vision impairment. Furthermore, the data can be used to scale and expand programs based on successful outcomes.

Conclusion



Building a made-in-Canada strategy provides an opportunity for Canada to join the Commonwealth Heads of Government in recognizing public health interventions as cost-effective and able to improve the health and well-being of Canadians, resulting in a more robust economy and society.

Canada's competitiveness increasingly relies on a workforce empowered to respond to a knowledge-based economy. An investment in a National Strategy that supports vision as a strategic asset to improve Canada's competitiveness will enhance the country's overall economic performance.



^v Op cit.

^{vi} Buhrmann, R. et al. (2011). Vision Health: evidence review for newly arriving immigrants and refugees. Appendix for Pottie K., Greenway, C., Feightener, J., et al. Evidence-based clinical guidelines for immigrants and refugees. Canadian Medical Association Journal.

^{viii} Gordon, K. (2012). The incidence of eye injuries in Canada. Canadian Journal of Ophthalmology. 47(4): 351-353. ^{ix} CNIB. (2012). The Cost of Vision Loss in Canada.

[×] Ibid.

^{xi} Vision Loss and Productivity: New CNIB Study Shines Light on Employment Issues. Cited on-line July 4, 2018 at: <u>http://www.cnib.ca/en/research/news/vision-loss-employment/Pages/default.aspx</u>

^{xii} CNIB. (2012). The Cost of Vision Loss in Canada.

xiii Vision Loss and Productivity: New CNIB Study Shines Light on Employment Issues. Cited on-line July 4, 2018 at: http://www.cnib.ca/en/research/news/vision-loss-employment/Pages/default.aspx

^{xiv} Nanos Research, Majority of Canadians have experienced vision problems; optometrists survey summary., Ottawa: CAO; March 2016

^{xv} Cumberland PM, Rahi JS, for the UK Biobank Eye and Vision Consortium. (2016). Visual Function, Social Position, and Health and Life Chances. The UK Biobank Study. JAMA Ophthalmol. 2016;134(9):959–966. doi:10.1001/jamaophthalmol.2016.1778

^{xvi} World Health Organization. (2010). Action plan for the prevention of avoidable blindness and visual impairment,
2009-2013. Geneva: WHO. Available from: http://www.who.int/blindness/ACTION_PLAN_WHA62-1-English.pdf
^{xvii} Ontario Association of Optometrists. 2016. Optimizing Optometry's Role in Ontario: Better Care, Better Value...
Closer to Home. White Paper by the Ontario Association of Optometrists.

^{xviii} Brenda J. Wilson et al. 2018. Screening for impaired vision in community-dwelling adults aged 65 years and older in primary care settings. CMAJ. May 14; 190: E588-4. Doi: 10.1503/cmaj.171430/-/DC2.

^{xix} Canadian Association of Optometrists. (2016). Position Statement: Frequency of Eye Exams. Cited on-line June 21, 2018 at https://opto.ca/health-library/frequency-of-eye-examinations.

^{xx} White, A. (2004). Eye Exams for Children: Their Impact and Cost Effectiveness. Cambridge, MA: Abt Associates. ^{xxi} Cumberland and Rahi, 2016

^{xxii} Bizier, C., Contreras, R., Walpole, A. (2016) Seeing disabilities among Canadians aged 15 years and older, 2012. ^{xxiii} Statistics Canada. (2017). Census in Brief: Working seniors in Canada. Release date: November 29, 2017.

xxiv Access Economics. (2008). The Cost of Vision Loss in Canada. CNIB and the Canadian Ophthalmological Society.



ⁱ Public Health Agency of Canada. (2009) Investing in Prevention - The Economic Perspective: Key findings from a survey of the recent evidence. Public Health Agency of Canada.

ⁱⁱ Canadian Institute for Health Information. (2017). National Health Expenditure Trends, 1975 to 2017. Ottawa, Ontario: CIHI.

ⁱⁱⁱ Javitt, J., Zhou., Z., Willke, R. (2007). Association between Vision Loss and Higher Medical Care Costs in Medicare Beneficiaries. American Academy of Ophthalmology. 114:2; 238-245.

^{iv} Ibid.

^{vii} Statistics Canada. (2012). Aboriginal Peoples Survey.