Towards the Development of a National Strategy for Eye Care

Submission by the Canadian Association of Optometrists

> "*Developing and implementing a national vision health strategy is the key to controlling the epidemic of age-related eye disease in Canada and preventing avoidable blindness. Areas for action include increasing early detection, improving access to vision health care, redressing human health resources issues, streamlining professional roles and improving system efficiency and quality, developing better treatments and improving the evidence base for practice, implementing a surveillance system for vision loss/ vision care, and increasing the public profile of vision health in Canada*"[i].

The Canadian Association of Optometrists is pleased to share this submission, which outlines to the Minister of Health what we view as important areas to consider as Health Canada embarks on developing a National Strategy on Eye Care per Bill C-284, "**An Act to Establish a National Strategy for Eye Care**."

Considerations:

In this document, we highlight Important burden of disease considerations, strategic, economic, and Health system considerations, as well as five specific sets of recommendations which the strategy should incorporate. This submission complements that of the Vision Care Partners Coalition by examining, at a closer level, the role which optometry plays in eye health and vision care.

1. Burden of Major Forms of Eye Disease

More than eight million Canadians are currently living with an eye disease from one or more of: age-related macular degeneration (AMD), diabetic retinopathy (DR), cataract, or glaucoma[ii]. This number has doubled just over the past 20 years. This rapid increase is due to two main factors – population growth and the aging Canadian population. Several of these eye conditions and diseases are age-related. These conditions are

progressive and asymptomatic in their early stages. Without timely detection and intervention, they can result in significant and irreversible vision loss.

An estimated 1.2 million Canadians live with vision loss, representing 3.2% of the population of Canada[ii]. Glaucoma affects 2.5% of Canadians and is the third leading cause of vision loss in the country[iii]. Approximately 1,037,000 Canadians have diabetic retinopathy, one of the primary causes of vision loss in Canada[ii]. In comparison, age-related macular degeneration (AMD) impacts around 2.5 million Canadians, making it the leading cause of vision loss among those 55 years and older, and the second leading cause overall[ii]. These figures highlight the increasing importance of optometry for public health and the need for coordinated, integrated, patient-centered, population-based approaches to prevent avoidable vision loss and many systemic conditions which have ocular manifestations.

2. Burden of Chronic Systemic Disease with Ocular Impacts

Diabetes remains one of the most prevalent chronic diseases in Canada and a key driver of preventable vision loss and is associated with a range of ocular conditions. An estimated 3.8 million Canadians over the age of one year live with diagnosed diabetes [iv]. Additionally, over 6% of Canadian adults live with prediabetes, placing them at heightened risk of developing type 2 diabetes [iv]. These numbers are expected to rise in the coming years due to population growth and aging.

Diabetic retinopathy is a leading cause of vision loss among working-age adults in Canada. Because the condition often develops without early symptoms, regular comprehensive eye examinations are essential for timely diagnosis and management.

Hypertension is also associated with a range of ocular conditions, most notably hypertensive retinopathy [v]. Hypertension is also a risk factor for the development and progression of diabetic retinopathy. Several other retinal diseases, such as retinal vascular occlusion, retinal arteriolar emboli, microaneurysm, ischemic optic neuropathy, and AMD, have also been linked to hypertension [v].

Additionally, certain autoimmune diseases, such as multiple sclerosis, rheumatoid arthritis, and ulcerative colitis, can lead to significant ocular complications that can be discovered during a comprehensive eye examination [vi].

3. The Specific Burden of a Rapidly Expanding Myopia Epidemic

There is a growing recognition of a global myopia epidemic, with increasing prevalence observed in Canada and worldwide. By 2050, it is projected that 50% of the world's population will be affected by myopia.[vii] The disease typically begins in childhood and progresses over time, and in severe cases, can lead to permanent and irreversible

vision loss. The rise in prevalence has critical implications for both individual and public health, especially given the long-term risks associated with higher levels of myopia.

Individuals with myopia face an increased risk of developing serious, vision-threatening conditions, including retinal detachment, glaucoma, cataract, and myopic macular degeneration [viii, ix]. Moreover, one in three individuals with high myopia is at risk of developing bilateral low vision as they age. This creates long-term implications for quality of life, visual function, and health.

There is growing evidence that environmental and behavioural factors play an important role in the development and progression of myopia. Excessive near work, such as prolonged screen time and reading, has been associated with earlier onset and faster progression [x]. In contrast, increased time spent outdoors offers a protective effect against myopia development in children. Early diagnosis of myopia opens treatment options by identifying the condition before it progresses significantly, allowing eye care professionals to intervene at a stage when treatments are most effective. **This demonstrates the importance of nationwide public education and standardized screening protocols by professionals for the early detection of myopia, particularly among children.**

4. Economic and Societal Burden of Vision Loss

Vision loss results in significant and multifaceted economic impacts, both for individuals and the broader health and social systems. The financial cost of vision loss in Canada is estimated at $15.6 billion annually [ii]. This includes:

- $9.5 billion in direct health system costs, such as medical treatments, hospital care, and long-term care services [ii.]
- $4.3 billion in productivity losses, including reduced workforce participation, absenteeism, loss of future earnings, and informal caregiving [ii.]
- $1.8 billion in other costs, such as expenditures for assistive devices, home modifications, and disability care [ii.]

Beyond these measurable financial costs, vision loss has broader social consequences, including increased risk of falls and injuries, social isolation, and reduced independence, especially among older adults [xi]. These impacts can severely affect quality of life and place additional strain on families and caregivers. Investing in early detection, timely intervention, and equitable access to optometry services can significantly reduce these costs.

Failure to detect and manage chronic conditions such as diabetes, hypertension, and cardiovascular disease imposes a significant and preventable burden on Canada’s health system and economy. These conditions often progress silently, leading to serious

complications by the time they are diagnosed, including irreversible vision loss. When left unmanaged, they increase the risk of ocular disease and drive higher hospital admissions, emergency department visits, long-term care needs, and loss of productivity.

From a health system's perspective, undiagnosed or poorly controlled chronic disease contributes to fragmented care, missed opportunities for early intervention, and substantial avoidable costs.

Optometry settings offer a unique and underutilized point of access for identifying early signs of chronic disease. The retina provides a non-invasive window into vascular health, allowing eye care professionals to detect changes in blood vessels and optic nerve function that may signal underlying systemic issues. In many cases, patients may first learn of their risk for diabetes or hypertension through an eye exam, especially if they have not accessed other forms of primary care. **The economic case for strengthening the role of optometry in chronic disease detection is strong. Early identification can reduce downstream healthcare costs, improve quality of life, and support better management of comorbid conditions.**

This emphasizes the importance of an interdisciplinary approach to vision care involving optometrists, specialty care providers, and general practitioners for early detection and ongoing monitoring of systemic disease.

Strategic / Health System Considerations

Our proposal for the development of a national strategy for eye care is anchored in the well-established, and globally accepted principles of primary healthcare, and the continuum of prevention, early detection, early treatment and rehabilitation.

It is our opinion that the following areas are critical ones to consider when developing an eye care strategy for Canada.

1. Access to Care

Our recent research shows that access to optometry services is primarily hindered by socioeconomic and demographic factors. Among respondents who had not seen an eye professional in the last two years, 32% reported that they could not afford optometry services. Meanwhile, only 5% cited a lack of nearby professionals and less than 1% reported difficulty finding a provider [xii].

Canada ranks among the top three countries in the world in terms of the number of optometrists per 10,000 population. Optometrists exist in almost every Statistics Canada forward sortation area. The vast majority of Canadians can reach an optometrist within less than 30 minutes of travel and can get an appointment with an optometrist within less than two weeks [xii]. That being said, we are also aware of the

stronger concentration of optometrists in large urban areas and challenges of access in some remote and rural regions of the country. Many optometrists working in rural areas find it challenging to attract younger optometrists to work in their clinics and take over when they retire.

Our research has also shown that what hinders access to optometry is lack of affordability. Federal programs such as the Interim Federal Health Program (IFHP) and Non-Insured Health Benefits (NIHB) are excessively bureaucratic and underfunded. This provides little incentive to practitioners to accept patients covered by these programs. Provincial programs suffer similar drawbacks which cause the most vulnerable members of society to not seek necessary early detection and prevention. This has been shown to cause Canadians to either delay or skip primary vision care altogether. The result is that age-related vision diseases (macular degeneration, glaucoma, diabetic and hypertensive retinopathy) progress in silence without obvious symptoms until vision loss occurs and they progress from prevention and early detection towards much more expensive curative and rehabilitative services. This in turn places more pressure on already stretched secondary, tertiary, and rehabilitative services.

Indigenous Peoples in Canada face unique and systemic challenges in accessing optometry services. Geographic isolation often limits access to optometry, with many Indigenous communities lacking local eye care services entirely. Systemic racism and a history of colonialism contribute to a deep mistrust of the health care system, leading some individuals to delay or avoid seeking care. In addition, federal and provincial jurisdictional gaps in health funding often create confusion and barriers to coverage for essential vision services. These challenges, compounded by broader social determinants of health such as poverty and inadequate transportation, contribute to disparities in eye health outcomes among Indigenous populations.

2. Redressing human resources issues

Canada's health human resources activities and initiatives have not kept pace with population growth, the aging population, and especially with the changing vision care needs of its aging population. A rapidly increasing number of Canadians are suffering vision loss due to age-related macular degeneration, glaucoma, cataracts, diabetic and hypertensive retinopathies.

Canada ranks among the top three countries in the world in terms of optometrists to population ratio. Optometrists practice in the majority of Canadian communities. In a recent study conducted by Leger, 69% of Canadians experienced no delay in obtaining an eye exam with an optometrist, and 76% travelled less than 30 minutes to be seen by an optometrist [xii]. This indicates good access across Canada to optometry services.

Granting optometrists the authority to practice to the full scope of their knowledge and training will relieve a significant bottleneck in access to secondary, tertiary and rehabilitative care. Simple authorities such as ordering laboratory tests, prescribing certain medications or performing in office and laser procedures which American optometrists have long been permitted to perform, will have a significant impact on what is otherwise considered a “human resources” issue. Canada has the primary vision care human resources needed to meet the needs of Canadians, but Canada is not using them effectively. Provinces such as Ontario and Nova Scotia have seen significant improvements in emergency room wait times, for instance, when pharmacists in those provinces were granted authority to practice to the full scope of their experience and education.

The Government of Canada, in collaboration with provincial health authorities can play important roles in addressing fragmentation in vision care. This can be done through education programs targeted at health practitioners, providing incentives for collaborative patient care, ensuring access to electronic health records for all practitioners, and legislation through optimizing the scope of practice of optometrists across Canada to allow them to practice to the full scope of their education and experience. Scope optimization alone has been proven to create significant efficiencies in the system which allow patients to access the best care possible, when needed and where needed. This should be done as part of a national health human resources framework for vision care which focuses on the growing optometry needs for a growing and aging population.

3. Developing better treatments and improving the evidence base for practice

Vision research in Canada is woefully underfunded. Since its establishment in 2000, the Canadian Institutes of Health Research has never had a dedicated funding stream for vision research. This has forced vision researchers to not only compete for limited funding with their peers, but with researchers from across the biomedical and population health spectrums. In contrast, the National Eye Institute recently was approved for a $898 .8 million budget through the U.S. Health and Social Science department. The disparity of dedicated Canadian funding has Canadian researchers to rely on foreign sources of funding or on very limited funding from Canadian charities. As a result, a “made in Canada” vision research strategy or framework does not exist. Without such a framework and dedicated sources of funding, the development of evidence-based programming and Canadian innovation in new treatments for vision loss becomes a challenge.

A Vision Health Surveillance System

Public health surveillance systems are critical tools for understanding prevalence of disease, trends over time, and access the effectiveness of public policies and

programming. They provide health planners, researchers and decision-makers with critical information and data for knowledge-based decision-making. A good example of how such systems function is the US Vision and Eye Health Surveillance System. Without robust vision health surveillance systems, population-based vision research also becomes a challenge.

Recommendations

The following are five sets of recommendations for Health Canada to consider in developing the strategy. The first four align directly with the four pillars of Bill C-284. The fifth set is an overarching one which focuses on redressing health inequalities, particularly those faced by indigenous peoples of Canada.

1- **Measures to identify the needs of health care professionals and other professionals in relation to training and guidance on the prevention and treatment of eye disease and on vision rehabilitation**

a. The strategy should incorporate a Health Human Resources framework which emphasizes:
   i. The development of resources and continuing education curricula for all relevant healthcare professionals on the critical role of the optometrist as the primary care professional for eye health.
   ii. The education of healthcare professionals and the public on the scope of practice of optometrists and their critical role in primary eye care.
   iii. Interdisciplinarity and collaboration between healthcare professionals in eye health and vision care, with the optometrist as the anchor of a patient-centered approach to vision care similar to the family physician in general patient care.
   iv. Education of professionals who intersect with vulnerable population groups (educators, social workers, etc.) about the importance of prevention and early detection of eye disease.
   v. The need for additional schools of optometry in Canada. There are only two at the moment (Waterloo and Montreal) and close to half of all new optometrists each year are Canadians educated in the USA. In addition, Canadians studying optometry in the USA have a much larger debt burden (over $200k US by the time they graduate). Two projects are currently under review- one in Alberta and one in New-Brunswick. Financial support from the Canadian

government would go a long way towards boosting our domestic capacity.

2- **Measures to promote research and improve data collection on eye disease prevention and treatment and on vision rehabilitation**

a. Set the stage for the development of a national vision health surveillance system which would act as a repository of data on:
   i. Epidemiology of Eye Disease
   ii. Access to primary, secondary, tertiary and rehabilitative vision care
   iii. Health human resources

b. Support the development of Canadian artificial intelligence (AI) tools at Canadian universities related to the diagnosis and treatment of eye disease.

c. Increase funding for biomedical and population health research specifically dedicated to eye health and vision care.

d. Provide funding to the First Nations Information Governance Centre to expand their First Nations Regional Health Survey on questions related to vision health and access to vision care.

e. Establish a national eye health data repository at the University of Waterloo which would streamline data sharing across jurisdictions and create an internationally recognized platform to support innovation, public health planning, and stronger health system integration.

3- **Measures to promote information and knowledge sharing between the federal and provincial governments in relation to eye disease prevention and treatment and to vision rehabilitation**

a. Establish mechanisms for a Federal, provincial, territorial working group that focuses on information and knowledge exchange, both in surveillance and best practices in programming.

b. Establish a federal, provincial, territorial working group to implement the national strategy for eye care.

c. Consider putting vision health as a standing agenda item on the:

i. Federal-Provincial-Territorial Health Minister Meetings
ii. Federal-Provincial-Territorial Deputy Ministers of Health Meetings

4- Measures to facilitate rapid examination of ophthalmic drugs and devices

a. Without compromising patient safety, emphasize the development of measures to reduce bureaucratic barriers to entry to Canada of ophthalmic devices and drugs to make it worthwhile for foreign industries and Canadian innovators to launch their products in Canada.

b. Emphasize the implementation of Health Canada's plan to address health product shortages, 2024-2028, with a specific focus on ophthalmic drugs and devices.

5- Measures to reduce health inequalities

a. Establish ongoing mechanisms to review and improve the effectiveness of publicly funded optometry programs (NIHB and IFHP) in delivering services across the country.

b. Establish ongoing mechanisms to review and improve remuneration models for NIHB and IFHP services to incentivize eye care providers to participate in the programs.

c. Establish funding for eye care delivery within indigenous-led health systems and facilities beyond the fee-for-service model under NIHB, leveraging established trusted environments to provide culturally safe care.

d. Invest in national public awareness and education campaigns to promote vision health and the importance of regular comprehensive eye exams, building on successful models such as Quebec's À L'École de la Vue program.

e. Consider expanding and strengthening the "Eye See…Eye Learn" program nationally to ensure that every child entering kindergarten across Canada receives a comprehensive eye exam and access to a free pair of glasses if needed.

Provincial Input

In preparation for this submission, the Canadian Association of Optometrists sought input from all provincial optometry associations on the four strategic pillars of the Bill. The following is an overview of their input.

Provincial Funding for Vision Health Education

There is variability in provincial government funding for children's vision initiatives. For instance, Saskatchewan provides annual financial support to the provincial optometry association for awareness and education, particularly during Children's Vision Health Month. In contrast, other regions report no direct funding for vision campaigns, with some only offering limited support for specific programs or populations.

In Quebec however, the À L'École de la Vue campaigns target parents of children aged 3-5 years, emphasizing the importance of standardized screening by optometrists before kindergarten. Alberta Health through the "eye see eye learn" program provides kindergarten students with an eye examination and, if required, a free pair of glasses. Often the provincial optometry associations run their own awareness campaigns.

Education of Health Care Professionals There are no formal interprofessional education initiatives in place in Canada to facilitate education across healthcare professions. In some provinces optometrists hold clinical instructor positions in nursing and medical schools, and universities offer seminars and clinical rotations for nursing, pharmacy, and medical students to learn about optometry. Some provinces have undertaken community outreach efforts include distributing informational brochures to organizations supporting women and educating new rural medical graduates about optometry services, aiming to raise awareness and foster collaboration.

Primary Care Optometrists are present in some specialized settings, such as Vancouver's downtown East Side clinics and a few long-term care facilities. However, overall integration with primary health care teams remains limited, especially in regions like Ontario and Saskatchewan. Efforts are ongoing to improve presence and relationships with other healthcare professionals through conference participation and network building. Ongoing efforts in Saskatchewan aim to engage health authorities and identify optometrist representatives for health care networks.

Research/Data There is a strong call for standardized, nation-wide eye health surveillance systems and improved data collection on disease incidence, treatment outcomes, and economic impact. All provincial associations highlighted the scarcity of funded research. There is an opportunity for greater interdisciplinary collaboration with the optometry profession on research planning and funding opportunities.

Knowledge Sharing All provincial associations emphasized the importance of knowledge sharing through government involvement, health meetings, and sharing of best practices. Several provincial associations highlighted the need for collaborative care models, especially for chronic disease management and Indigenous peoples' health. Efforts to improve healthcare communication and integration of optometrists into broader healthcare communication channels are important.

Drugs and Devices Provinces highlight the need to include drugs, glaucoma, diagnostic tools, care, therapies, devices, and medication for priority approval. There should be a focus on innovative therapies like glaucoma treatments, diagnostic devices, and addressing shortages of medications.

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