

For Canadians access to eye care depends on where you live

The Canada Health Act adopted in 1984 is based on the principle of universal healthcare coverage. In other words the Act promises physician and hospital services to all Canadian residents irrespective of income or geography. Since Canada is the second largest country by land mass but only the 35th by population, one of the many challenges to the Act is access to care based on where one lives.

Vision care is mostly provided by ophthalmologists and optometrists. Ophthalmologists are medical doctors trained to diagnose and treat eye disease with medication, laser or surgery. Optometrists are not medical doctors. Optometrists are trained to diagnose common eye diseases, are allowed to prescribe some medications, but do not perform laser or surgery. To further complicate understanding who provides which eye service, some ophthalmologists have done additional training focusing on very specific regions/diseases of the eye such as glaucoma or retina diseases like macular degeneration and diabetic eye disease.

The ideal number of eye care providers to population is unknown. Studies usually focus on the number of ophthalmologists per population on a national level which does not reflect what is happening at provincial and smaller regional level such as towns and cities. This type of analysis also does not consider the type of care the ophthalmologist is providing, comprehensive versus subspecialized, and does not include optometrists who provide a significant volume of primary eye care to the population.

As a first step in understanding potential access issues to eye care we examined the number of ophthalmologists, subspecialist ophthalmologists and optometrists per population on a national, provincial and regional level. This study was based on data obtained in 2012.

We found that in Canada in 2012 there were 5,729 optometrists and 1,164 ophthalmologists; this means there were 4.9 optometrists for every ophthalmologists. In addition 45% of the ophthalmologists were subspecialized. When considering Canada's population this represents 3.35 ophthalmologists and 16.48 optometrists per 100,000 population. On the provincial level the greatest number of ophthalmologists per 100,000 population was in Nova Scotia (5.4) and the lowest in the Territories (0.89) followed by Saskatchewan (1.96). For optometrists Alberta had the highest ratio (21.31) followed by the Territories (2.68) and Newfoundland and Labrador (10.01). When optometrists and ophthalmologists are considered together the national average was 19.83 eye care providers per 100,000 population with provincial ranges from 23.99 in Alberta to 12.56 in Newfoundland.

We further evaluated the eye care provider ratios by smaller regions. Statistics Canada has defined 148 regions in Canada with a minimum population of 10,000 which together include 82% of the Canadian population. Although 43 of these regions had no ophthalmologist and one had no optometrist every region had at least one eye care provider. In addition there were 15

ophthalmologists and 620 optometrists who were located outside of these 148 regions.

This study shows that there is significant regional variation in the number of eye care providers *suggesting that Canadians' ability to see an eye care provider depends on where they live with is contradictory to the Canadian Health Act*. Some Canadians are required to either travel long distances to receive eye care or not obtain treatment for eye conditions.

It is important that the government and professional societies maintain similar information to be able to identify areas with an over/under supply of eye care providers and encourage a more even distribution so that the supply of eye care providers meets the needs of the population. This requires an understanding of the different roles of an optometrist and ophthalmologist and aligning the number of trainees and their ultimate work location based on population needs. New graduates should be encouraged to consider underserved areas however specifically for ophthalmologists these communities need to provide the resources required for an ophthalmologist, specifically access to operating room facilities. In addition new models of eye care delivery such as teleophthalmology should be expanded to improve access to remote areas and decrease the burden of travel for some patients. Attention to workforce planning of all medical care providers is required to ensure equal access to quality health care for all Canadians as promised under the Canadian Health Act.

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[Workforce supply of eye care providers in Canada: optometrists, ophthalmologists, and subspecialty ophthalmologists.](#)

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