



ECONOMIC BENEFITS OF TREATMENT

MEDEC'S OPHTHALMIC SECTOR COMMITTEE

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PRODUCTIVITY GAINS FROM INNOVATIONS IN VISION CARE AROUND – CLEARER VISION, FEWER COMPLICATIONS, QUICKER RECOVERY, AND GREATER CONVENIENCE. BUT CANADIAN HEALTH CARE POLICIES THREATEN PATIENT ACCESS TO CARE AND CONTINUED INNOVATION IN OPHTHALMIC TECHNOLOGIES – EVEN AT A TIME WHEN INCIDENCE OF AGE-RELATED EYE DISEASES IS RISING RAPIDLY. UNACCEPTABLY LONG WAITING TIMES FOR OPHTHALMIC PROCEDURES AND A SHORTAGE OF RESEARCH FUNDING ARE BARRIERS TO THE DELIVERY OF OPTIMAL LEVELS OF VISION CARE IN CANADA. THESE ISSUES MUST BE ADDRESSED IF CANADIANS ARE TO REAP THE QUALITY-OF-LIFE AND PRODUCTIVITY BENEFITS THAT MODERN OPHTHALMIC TECHNOLOGY HAS THE POTENTIAL TO DELIVER.

By the Numbers

Blindness and Irreversible Vision Loss

- Number of Canadians developing irreversible vision loss by age 65, 1:9 (equal to number of women affected by breast cancer)
- By age 75, 1:4
- Number of Canadians aged 65–75 in 2001: approx. 2.2 million
- Number of Canadians aged 65–75 in 2021: approx. 4 million
- In 2001, vision loss accounted for 17% of total disability in Canada
- Amount of vision loss that is preventable in developed countries: 75%
- For people with vision loss (compared to general population of same age):
 - > Admission to nursing homes is three years earlier.
 - > Number of falls is twice as high.
 - > Incidence of depression is three times as high.
 - > Occurrence of hip fracture is four times as high.
 - > Number of deaths is twice as high.

CATARACTS

A cataract is a painless, cloudy area in the lens of the eye that blocks the passage of light to the retina, the nerve layer at the back of the eye, usually causing vision problems. Aging and exposure to ultraviolet radiation can cause cataracts.

Current Estimate: 2.5 million Canadians are affected.

2020 Estimate: 3.1 million Canadians projected to have cataracts.

Treatment Benefits:

- Cataract surgery provided Canadians over \$30 billion in benefits alone in 2003
- Cataract patients in Canada contributed \$95,000 more in economic productivity from improved quality of life than if they had not received surgery.

GLAUCOMA

Glaucoma is a group of eye diseases in which nerve damage in the back of the eye (optic nerve) results in loss of vision. At first, peripheral vision is lost. If left untreated, vision loss may continue, leading to total blindness over time. Glaucoma is the second leading cause of blindness. It is 6-8 times more common in African Canadians.

Current Estimate: 300,000 people in Canada over 50 years of age have glaucoma (represents 9% to 12% of all cases of blindness).

2020 Estimate: No data currently available however, if trending with the US, project another 100,000 Canadians to have Glaucoma

Estimated Cost:

- Annual treatment cost \$156 million
- Average annual cost to patient \$1,750
- Cost in lost productivity \$150 million

Treatment Benefits:

- Looking at international data, the government in the U.K would save up to 1 billion pounds or \$1.8 billion U.S. if just 10 per cent of the glaucoma population received earlier treatment which halted the disease.

Sources: Credit goes to AdvaMed for the work they have done on Economic Benefits of Treatment as well as to the Canadian National Institute for the Blind and MEDEC member organizations.

DIABETIC RETINOPATHY

Diabetic retinopathy is an eye disease caused by diabetes. Diabetes damages the small blood vessels in the retina, which can lead to vision loss. Diabetic retinopathy is the leading cause of vision loss in people between the ages of 20 and 74.

Current Estimate: 400,000 Canadian affected.

2020 Estimate: 700,000 Canadians projected to have diabetic retinopathy

Treatment Benefits:

- If trending with U.S. data, Canada has saved \$16 billion per year in costs of blindness and vision impairment because of new treatments that prevent or delay the disease.
- Retinopathy of Prematurity, a blinding complication in premature infants would have cost the U.S. government \$1 million over the lifetime of each child for benefits and lost taxes without new treatments. Now with treatment, more than 1,500 babies born who have the disease will be able to see.
- If just 1,000 cases could be avoided in the U.K., it would save up to 237 million pounds or \$444 million U.S.

AGE-RELATED MACULAR DEGENERATION

Age-related macular degeneration (AMD) is an eye disease that destroys central vision by damaging the macula. There are two types of the disease. Dry AMD, which accounts for 85% to 90% of all cases of AMD, affects central vision by causing it to become dimmer or more blurry with age. Wet AMD, which comprises 10 per cent of cases, quickly damages the macula, causing permanent damage and rapid loss of central vision. According to the Age-Related Eye Disease Study (AREDS), over a period of five years, late stage dry AMD develops into wet AMD in 43% of cases.

Current Estimate: AMD is the leading cause of severe vision loss for people over the age of 50. Right now, there are an estimated 2.1 million people in Canada with some form of AMD. Each year, almost 78,000 Canadians are diagnosed with AMD, a number expected to triple within the next 25 years.

Treatment Benefits:

- Treatment of patients with photodynamic therapy to halt progression of the disease in Canada generated \$74,096 CDN in economic benefits to society per quality adjusted life year at two years after treatment.



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LES SOCIÉTÉS CANADIENNES DE TECHNOLOGIE DES
DISPOSITIFS MÉDICAUX

405 The West Mall, Suite 900, Toronto, Ontario M9C 5J1
T: 416.620.1915 • F: 416.620.1595 • Toll-Free: 1.866.58.MEDEC • www.medec.org/code • Email: medec@medec.org

