

# Visual impairment in Vancouver's Downtown Eastside: A medical student's perspective

Health care inequities pertaining to ophthalmic care are prominent in underprivileged populations. Developing an understanding of the epidemiology of visual impairment in the Downtown Eastside and assessing the eye care needs in this community are necessary first steps to finding a solution to this problem.

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**ABSTRACT: Vancouver's Downtown Eastside comprises some of the most marginalized neighborhoods in Canada and has faced many health care inequities, including those pertaining to ophthalmic care. Visual impairment is prevalent and challenging to address nationwide, but it is especially pronounced in this community's underserved population due to a multitude of barriers. To find a solution to this problem, we must begin by developing an understanding of the epidemiology of visual impairment in the community and conducting an assessment of the population's eye care needs.**

**M**aintaining healthy vision is an important health issue. For many, loss of vision is associated with loss of health, independence, dignity, access, and opportunities. According to the National Coalition for Vision Health's 2009 report on the state of vision health in Canada, visual impairment is directly linked with social isolation, loss of employment, low socioeconomic status, poorer health and mortality, and loss of independence in performing daily activities.<sup>1</sup> It is anticipated that visual impairment is more prevalent in Canada's marginalized populations—refugees and new immigrants, First Nations, and those living below the poverty line. Within British Columbia, Vancouver's Downtown Eastside (DTES) comprises the poorest and

most marginalized neighborhoods and struggles with challenges such as substance abuse, homelessness, poverty, crime, and multiple health care inequities.

The leading causes of vision loss in Canada include cataracts, age-related macular degeneration, and diabetic retinopathy.<sup>2,3</sup> Maberley and colleagues published a study that investigates the epidemiology of visual impairment specifically in the DTES.<sup>4</sup> In this case series of 200 patients who used eye-care services at a community ophthalmology clinic, it was reported that the prevalence of permanent visual impairment is 500 per 10 000 (5%), which is roughly 9 times higher than that of the general population. Cataracts and retinal disease were the leading causes. The

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median age of this population was 46 years and 69% were male. Significant comorbidities were also found in these patients; HIV, IV drug use, and hepatitis B and C were the most common. Maberley and colleagues noted that the high mortality due to the comorbid conditions may partly explain why age-related macular degeneration and diabetic retinopathy are not prevalent in the DTES population despite being prevalent in the general Canadian population. Refractive error was the most common cause of correctable or non-effective (not due to nonrefractive ocular pathology) visual impairment. The prevalence of refractive visual impairment was estimated to be 2400 per 10 000 (24% of the DTES population).

There are multiple barriers to accessing ophthalmic care in the DTES. One of the risk factors for poor ocular health is female gender. Maberley and colleagues found that only 31% of those who accessed eye-care services at the facility referenced in the study were female. Other barriers include transportation difficulties, lack of fixed addresses for patient contact, and pessimism and anxiety among the DTES community about attending tertiary health care facilities.<sup>4</sup>

In addition, the current government-funded ophthalmic care model in the DTES leaves much to be desired. According to the BC Ministry of Health's website, the Medical Services Plan only covers routine eye examinations for people who are under 18 or over 65 years old.<sup>5</sup> Prescription eye glasses (whether for cataract vision improvement or refractive error correction) and contact lenses are not a benefit covered by MSP in most circumstances. The average age of people living in the DTES is roughly 45 years old, 10% of the population is under 19 years old, and 21% is over 65 years old.<sup>6</sup> This suggests that the majority of people in the DTES are not covered for routine eye exams for diagnosing refractive

error and none are covered for prescription glasses (except for some children of low-income families).

Additionally, optometrists are permitted to charge patients an eye-exam fee above the standard \$46.17 set by MSP.<sup>7</sup> Fees over \$90 for a full eye exam are not uncommon. Moreover, while surgery for removal of cataracts that impair patient functioning is covered by MSP, patients were only covered for the rigid variety

why refractive error is a leading cause of visual impairment in the population. Because eyeglasses and exams are not covered, and optometrists are permitted to charge independently for these, they can become quite expensive. With a median annual salary of \$13 691,<sup>6</sup> spending \$60 to \$120 on yearly eye exams and more than \$100 on eyeglasses would be a luxury for most residents. Before this financial barrier can be addressed, further

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of monofocal intraocular lenses (IOL) until June 2012.<sup>8</sup> The current standard of care for IOLs is foldable IOLs and, until 2 years ago, they had to be purchased directly from physicians at a cost of \$250 to \$500 (including any profit markup).<sup>8</sup> With the recent change, foldable monofocal IOLs are covered for all patients and are purchased by health care authorities on behalf of patients. Multifocal IOLs, which can cost upward of \$1000, are still not covered by MSP. As a result, until recently, DTES residents may have had to pay out of pocket for the industry standard foldable IOLs should they have required cataract surgery.

Financial limitations experienced by DTES residents may help explain

data on the impact of low incomes on access to care is needed. Once sufficient data are collected, re-evaluation of MSP coverage for low-income families in the DTES can be considered and the feasibility of including yearly eye exams for refractive error and eyeglasses as MSP benefits can be proposed.

In addition, Canada is faced with a severe shortage of ophthalmologists.<sup>3</sup> The dwindling supply of eye specialists is especially pronounced in the Downtown Eastside. A search through the directory of the BC Society of Eye Physicians and Surgeons showed that, in Vancouver, the greatest concentration of ophthalmology practices is centred on the Vancouver General

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Hospital.<sup>9</sup> There are currently five practising ophthalmologists located downtown and only one office is located in the eastside. Access to care is only available in the form of referrals from primary care centres (general practitioners and optometrists) and through services at community clinics for underserved populations.

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There needs to be a stronger emphasis on inner-city ophthalmology in the medical and academic community. One way this could be accomplished is by designing a suitable elective rotation for senior medical students and ophthalmology residents to generate interest in this subpopulation. There are currently no regularly scheduled resident clinics in the DTES that focus on providing ophthalmic care to marginalized populations.

The findings in the DTES are

hardly surprising, given the marginalization and social polarization of the communities. Any proposed intervention would require a thorough evaluation of the current state of care, and such an evaluation will require extensive literature and data, which is unfortunately close to nonexistent at this time. This is an area where we can focus our efforts. Developing a

thorough understanding of the epidemiology of visual impairment in the DTES and conducting a well-informed assessment of the eye care needs of this community will lay the foundation to finding a robust solution to this problem.

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