Introduction

Due to an ageing population as well as increasing prevalence of diabetes, visual impairment (VI) is becoming a major public health issue in many countries [1]. Few studies have evaluated the prevalence of and trends in prevalence of visual impairment in Canada, especially among people with diabetes [2].

**Objective:** To assess trends in the prevalence of VI among Canadians with and without diabetes aged 40 and older.

Methods

Data from respondents aged 40+ participating in seven nationwide surveys were analyzed: the National Population Health Survey in 1994/1995 (n=17,626), 1996/1997 (n=81,804) and 1998/1999 (n=17,244) and the Canadian Community Health Survey in 2000/2001 (n=130,880), 2008/2009 (Healthy Aging, n=30,865), 2009/2010 (n=124,188) and 2013/2014 (n=127,462). Using the 2016 Canadian population as the standard population, the age- and sex-standardized prevalence of VI was calculated. For analyses stratified by levels of education and income, sex-standardized prevalence was calculated.

Results

- From 1994 to 2014, the prevalence of VI was roughly 2 times higher in people with diabetes versus those without.
- The prevalence of VI decreased in both groups over the study period (Figure 1).
- Among the diabetes group, the number of individuals with VI increased in 2013/2014, (57,000; p<0.05) compared to 1994/1997 (55,000). Among the non-diabetes group, the number of VI individuals decreased from 1994/1997 (339,000) to 2013/2014 (220,000; p<0.05) (Figure 2).
- For those both with and without diabetes, the standardized VI prevalence decreased in those with high and low levels of income (Figure 3) and education (Figure 4) over the 20 years studied.

Conclusion & Discussion

- The prevalence of self-reported VI in Canadians with and without diabetes has decreased over the past 20 years.
- The prevalence of VI was around 2 times higher among those with diabetes compared to those without throughout the study period.
- These results likely reflect the effectiveness of the collective efforts by eye care providers, researchers, the public and government.
- Despite decreased prevalence in people with diabetes, the number of Canadians with VI from diabetes increased slightly, due to the growing diabetes pandemic.
- We must continue our efforts to increase access to eye care for Canadians while improving the standard of care for diabetic screening.

References

2. Dalla Lana School of Public Health, Toronto, Canada; *Department of Ophthalmology and Vision Sciences, University of Toronto, Toronto, Canada; †Department of Family Medicine, Schulich School of Medicine and Dentistry, Western University, London, Canada.