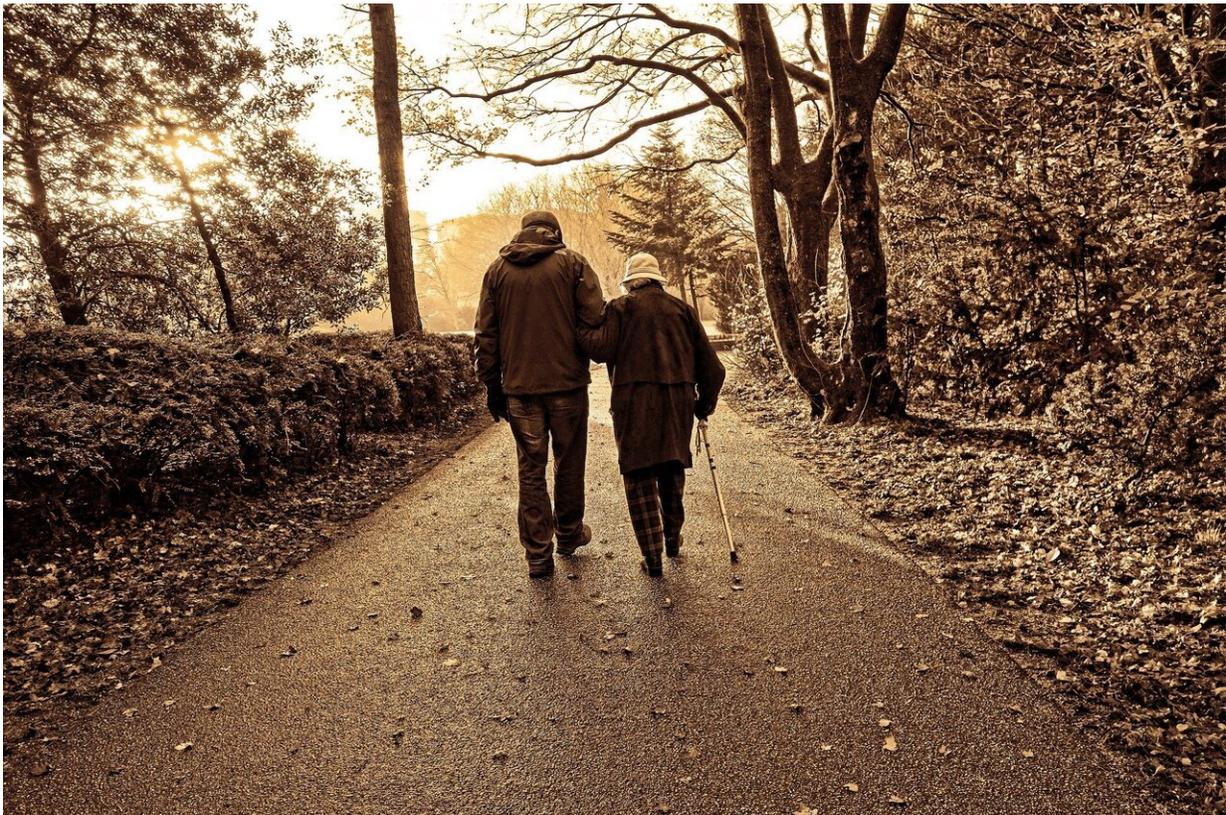


Serious vision impairment declines among older Americans between 2008 and 2017

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American adults 65 years old and older have better vision than that age group did nearly a decade ago, according to a recent study published in the journal *Ophthalmic Epidemiology*.

In 2008, 8.3% of those aged 65 and older in the US reported serious [vision impairment](#). In 2017 that number decreased to 6.6% for the 65-plus cohort. Put another way: if [vision](#) impairment rates had remained at 2008 levels, an additional 848,000 older Americans would have suffered serious vision impairment in 2017.

"The implications of a reduction in vision impairment are significant," says the study's first author, University of Toronto pharmacy student, ZhiDi (Judy) Deng.

"Vision problems are a major cause of age-related disability, and serious vision impairment can increase the risk of falls and fractures and undermine quality of life. Moreover, the cost of vision impairment to the US economy is in the tens of billions of dollars. We need to determine how to maintain this positive trajectory into the next decade and beyond."

Racial/Ethnic disparities in vision health decreased

For every year between 2008 and 2017, serious vision impairment was more prevalent among Black and Hispanic respondents aged 65 and older than among non-Hispanic White respondents; however, these racial/ethnic health disparities appear to be narrowing.

Black and Hispanic Americans over 65 showed greater reductions in vision impairment across the decade compared to Non-Hispanic White Americans, with a 27% decline in serious vision impairment among Black respondents and a 24% decline among Hispanic Americans. Non-Hispanic White Americans showed the smallest decline in serious vision impairment at 13%.

"The narrowing of racial/ethnic disparities in vision related problems during this period may be attributable, in part, to the implementation of

the Affordable Care Act which led to a large increase in the percentage of insured Hispanics and Black Americans," says Deng.

"While it is heartening to see the racial disparities improving over the decade, targeted outreach and improved access to affordable vision care for racialized groups is still urgently needed to effectively eliminate the gap."

The greatest improvement in vision occurred in those aged 85 and older

The observed decade decline in vision problems was propelled by a 26% decrease in the odds of vision impairment among those aged 85 and older, and a 16% decline among those aged 75-84 when adjustments were made for age, sex, and race/ethnicity. In contrast, the 65 to 74-year-old cohort had a much more modest improvement compared to their 2008 counterparts, experiencing only a 2.6% decline over the decade.

"Although a 21% decline in the odds of vision impairment over a 10-year period is truly phenomenal, we cannot assume this trend will continue at the same pace," says senior author, Esme Fuller Thomson, director of University of Toronto's Institute of Life Course and Aging and professor at the Factor-Inwentash Faculty of Social Work, the Department of Family & Community Medicine and the Bloomberg Faculty of Nursing.

"The very small gains made by those currently aged 65 to 74 over the past decade suggest that as the Baby Boom cohort ages into their late 70s and 80s, the downward trend in the future may be much less steep than that seen from 2008 to 2017."

Vision improvements among women drives change

Women account for nearly two-thirds of global blindness. In this study, women had a higher prevalence of vision impairment compared to men, but this gap narrowed over the decade. The rate of decline in the odds of impairment over the decade was consistently greater for women (21%) than for men (9%). It is unclear why the rate of improvement differs by gender, but previous research suggest women are more likely than men to visit eye care professionals, which may contribute to these findings.

Causes remain a medical mystery

The observed downward trajectory in vision problems among older adults is in keeping with previous studies using smaller samples in the United States and Europe, but the reason for such a dramatic decrease remains a medical mystery.

The study's authors hypothesize several potential causes for the observed improvements, including advances in medical interventions for vision problems, better management of comorbid health conditions such as diabetes, cohort differences in lifelong access to vaccinations and antibiotics, universal folic acid supplementation, decreases in periodontitis, and improvements in air pollution, including lower lifetime exposure to lead due to the phase-out of leaded gasoline. However, the design of this study and earlier research do not provide definitive insight into the causes of the observed positive trend in the prevalence of serious vision problems.

The study was based on 10 consecutive waves of the American Community Survey (2008-2017) which engaged a nationally representative sample of approximately half a million American respondents aged 65 and older annually, including those who lived in institutions such as long-term care homes, and those who were living in the community. The question on vision impairment was "Is this person

blind or does he/she have serious difficulty seeing even when wearing glasses?"

"It is truly remarkable that there would have been an additional 848,000 older Americans with serious vision impairment in 2017 if the rates had remained at 2008 levels," says Fuller-Thomson. "We need more research to understand why these trends are occurring."

More information: ZhiDi Deng et al, Temporal Trends over a Decade in Serious Vision Impairment in a Large, Nationally Representative Population-based Sample of Older Americans: Gender, Cohort and Racial/Ethnic Differences, *Ophthalmic Epidemiology* (2021). [DOI: 10.1080/09286586.2021.1889001](https://doi.org/10.1080/09286586.2021.1889001)

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