

Title: Nationwide and regional trends in distance and near visual acuities during 2000–2017 in Finland

Authors:

Petri Purola, Seppo Koskinen, Hannu Uusitalo

Keywords:

aging, equality, eye care, population-based study, vision loss

Abstract

Vision plays an important role in everyday life. The number of people with impairments in distance or near vision is expected to rise along with the number of vision-threatening diseases due to ageing of populations and increasing life expectancy. Hence, it is vital to follow time trends in vision and the impact of interventions preventing vision loss.

Our aim was to evaluate time trends in vision at national and regional level during 2000–2017 in Finland. We used three cross-sectional, nationwide health examination surveys representing the Finnish adult population aged ≥ 30 years in 2000, 2011, and 2017. Bilateral, corrected distance and near visual acuity were measured in each survey.

The overall vision level has improved among the adult population: the prevalence of good distance vision increased from 76.7% to 81.3% during 2000–2017. This improvement is explained mostly by a positive shift from lower to higher vision levels among older age groups: among those aged ≥ 85 years, the prevalence of weak or worse distance vision decreased from 71.8% to 28.3% and the prevalence of weak or worse near vision decreased from 62.3% to 27.1%. Similar positive time trend was observed in all main regions of Finland, and differences between urban and rural regions were small.

The improvements in vision were largest among older age groups, indicating that people live longer with good or adequate vision. This positive trend showed remarkable similarity throughout different regions in Finland, highlighting the importance of equal and accessible eye care throughout a country.