

Vision Loss: A Public Health Problem

Recently, Saaddine, Venkat Narayan & Vinicor (2003) posed five criteria that define whether vision loss is a public health problem they are:

1. Does vision loss affect a lot of people?

Yes. More than 3.4 million Americans aged 40 years and older are blind (having a visual acuity of 20/200 or less or a visual field on 20 degrees or less) or visually impaired (having a visual acuity of 20/40 or less). Other estimates of "vision problems" range as high as 21 million, and a total of 80 million Americans have potentially blinding eye diseases. The major causes of vision loss are cataracts, age-related macular degeneration, diabetic retinopathy, and glaucoma.

2. Does vision loss contribute a large burden in terms of morbidity, quality of life, and cost?

Yes. People with vision loss are more likely to report depression, diabetes, hearing impairment, stroke, falls, cognitive decline, and premature death. Decreased ability to see often leads to the inability to drive, read, keep accounts, and travel in unfamiliar places, thus substantially compromising quality of life. The cost of vision loss, including direct costs and lost productivity, is estimated to exceed \$35 billion (Rein, Zhang, Wirth, et al., 2006)

3. Has vision loss recently increased and will it increase in the future?

Yes. As the population of older people continues to accelerate, the number of people experiencing vision loss will continue to increase. And as the population of people experiencing diabetes increases, consequent increases will occur in diabetic retinopathy and other eye diseases. Prevent Blindness America estimates that the population of people experiencing blindness and visual impairment will double by 2030 unless corrective actions are taken.

4. Is vision loss perceived to be a threat by the public?

Yes. Vision loss ranks among the top ten causes of disability in the United States, and it is a condition feared by many.

5. Is it feasible to act on vision loss at a community or public health level?

Yes. Scientific evidence shows that early detection and treatment can prevent much blindness and vision impairment. Efficacious and cost-effective strategies to detect and treat diabetic retinopathy are available, but among people with diabetes, screening is received only by about two-thirds of persons for whom the exam is recommended and varies significantly across health care settings. Cataract removal surgery can restore vision, and this surgery is cost effective; however, among African Americans, unoperated senile cataracts remain a major cause of blindness. Glaucoma can be controlled, and vision loss stopped by early detection and treatment. Nevertheless, half the people with glaucoma are not diagnosed, and glaucoma is still the number one blinding disease among African Americans.

Public health serves to address each of these questions by conducting population-based investigations to determine the population, characteristics, circumstances, and trends of vision loss, as well as developing and implementing evidence based, cost-effective interventions to assure access to vision care and health behaviors to prevent the onset of vision loss and to improve the health and quality of life for those who have lost vision.

Several thoughtful papers have articulated public health dimensions of vision loss. These include the following:

Saaddine JB, Venkat Narayan KM, Vinicor F. Vision Loss: A Public Health Problem? *Ophthalmology*, 2003;110(2); 253–254.

Rein DB, Zhang P, Wirth KE, et al. The economic burden of major adult visual disorders in the United States. *Arch.Ophthalmol* 2006;124(12):1754–1760. [Abstract](#) 

Gohdes DM, Balamurugan A, Larson BA, Maylahn C (2005). Age-related eye diseases: an emerging challenge for public health professionals. *Preventing Chronic Disease: Public Health Research, Practice, and Policy* 2005;2(3); 1–6.

Ferris FL Tielsch JM. Blindness and visual impairment: a public health issue for the future as well as today. *Archives of Ophthalmology* 2004;122; 451–452.

Crews JE. (2003). The role of public health in addressing aging and sensory loss. *Generations* 2003;27(1); 83–90.

Crews JE, Kirchner C, Lollar DJ. The view from the crossroads of public health and vision (re)habilitation. *Journal of Visual Impairment and Blindness* 2006;100; 773–779.

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