

# Prevalence of Visual Acuity Loss or Blindness in the US

Prevalence of Visual Acuity Loss or Blindness in the US,<sup>1</sup> a study published in *JAMA Ophthalmology*, has found that as of 2017, 7.08 million people are living with uncorrectable **visual acuity loss**, including 1.08 million Americans who are living with **blindness**. Researchers found that estimates of permanent vision loss and blindness in Americans of all ages is **68% higher** than those previously available.<sup>2</sup> This increase is due to:

- The inclusion of people 40 and younger
- The inclusion of people living in group quarters (i.e., nursing homes or prisons)
- An increased number of adults aged 65+ living in the U.S. as compared to 2010

## Age:



20% of all individuals age **85 and older** in the U.S. experience **permanent vision loss**.

**MORE THAN 1.6 MILLION PEOPLE** with uncorrectable visual acuity loss and **141,000 PERSONS** with blindness (13.09% of all persons who are blind) are **UNDER THE AGE OF 40**.

*This is the first national estimate of permanent visual acuity loss for people younger than age 40.*



## IMPORTANT TAKE AWAY:

In 2017, there were **7.08 million people in the U.S. living with visual acuity loss**, of whom **1.08 million are blind**. This translates to about **1 in every 47 people in the U.S. with visual acuity loss or blindness**.

### Why is this important?

Uncorrectable visual acuity loss and blindness affect more people in the U.S. than previously known.

## Race/ethnicity:



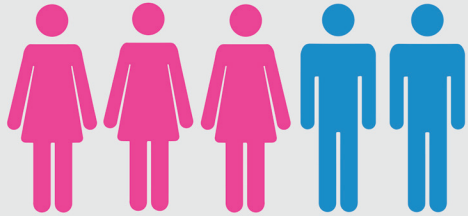
There is a **higher risk** of visual acuity loss among **Hispanic and Black** individuals than among White individuals.

## Definitions:

**Visual acuity loss:** A best-corrected visual acuity of 20/40 or worse in the better-seeing eye.

**Blindness:** A best-corrected visual acuity of 20/200 or worse in the better-seeing eye.

**Sex:**



**More females than males experience permanent vision loss.**

Three females for every two males experiencing visual acuity loss or blindness.

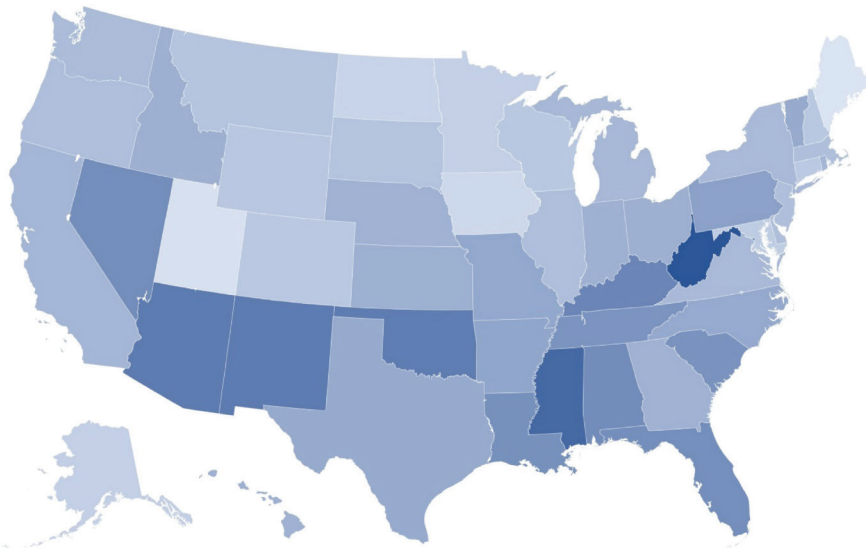
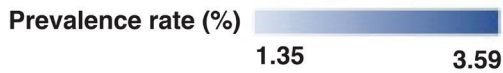
**Institutional Status:**

**1 IN 8 PERSONS WHO ARE BLIND LIVE IN INSTITUTIONS – nursing homes, group homes, or prisons.**



**States:**

**Prevalence of visual acuity loss and blindness varies widely by state**



**Substantial Differences in Vision Loss and Blindness by State**

The study found variation in the prevalence of visual acuity loss and blindness by state, ranging from a low of 1.35% in Maine, to a high of 3.59% in West Virginia. The study supplement provides rates for each state.

**Why is this estimate of vision loss and blindness so much higher?** Previous estimates of visual acuity loss and blindness in the U.S. were around 4.2 million people.<sup>2,3</sup> These studies are based on meta-analytic summaries of population-based studies many of which are quite old, and all of which excluded important populations including children, adults younger than age 40, and people living in group settings such as nursing homes, group homes, and prisons. Estimates from these studies also lacked sufficient data to study vision loss among the oldest age group (people ages 85 and older).

In this study, researchers applied Bayesian meta-regression methods to multiple data sources (including population-based studies, the American Community Survey, National Health and Nutrition Examination Survey, and the National Survey of Children’s Health) with the goal of producing estimates of the prevalence and uncertainty interval of visual acuity loss or blindness for 2017. Study methods are further described in the study supplement. Estimates were developed using data within CDC’s Vision and Eye Health Surveillance System (VEHSS). The VEHSS houses diverse data sources for vision – including Medicare and private insurance claims data, electronic health record data, and self-reported and clinical evaluation data from representative national surveys.

## What can we do to prevent vision loss and blindness?

Vision loss and blindness are often preventable. Vision loss is influenced by awareness of personal risk for vision loss, access to eye care, general health care, geography, race/ethnicity, smoking, sun exposure, and underlying health conditions, such as diabetes. The updated estimates provided by this study help to define the scope of the issue, allow for strategic resource allocation, and promote development and implementation of policies and programs to reduce the burden of vision loss and blindness in the United States.

## Vision loss and blindness can be prevented by addressing these issues.



smoking



sun exposure



chronic disease



access to health care



social determinants of health



lack of policies to promote early detection of vision disorders

\* Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 3-30-21, from <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>

## RESOURCES FOR IMPROVEMENT

Below are some vision and eye health resources to support your work.

### Vision and Eye Health Surveillance System (VEHSS): A National Data System for Vision and Eye Health

The estimates from this study were developed by using data within CDC's Vision and Eye Health Surveillance System (VEHSS). Get the latest state and national data on vision and eye health. [www.cdc.gov/visionhealth/vehss/index.html](http://www.cdc.gov/visionhealth/vehss/index.html)



### Prevent Blindness Vision and Eye Health Resource Center:

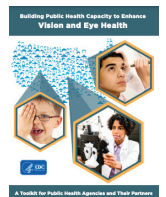
The Center for Vision and Population Health at Prevent Blindness houses a compilation of resources which support the integration and enhancement of vision and eye health initiatives in public health programming. Integrating these tools and resources into your programming may help to improve the vision outcomes for individuals and communities of all ages, especially older adults, individuals with chronic diseases, and those at risk for eye diseases. [cvph.preventblindness.org/vision-eye-health-resource-center/](http://cvph.preventblindness.org/vision-eye-health-resource-center/)



### Building Public Health Capacity to Enhance Vision and Eye Health: A Toolkit for Public Health Agencies and Their Partners

This toolkit can help public health agencies and their partners assess the level of vision impairment in their communities, build effective partnerships, and implement effective and sustainable interventions to improve vision and eye health.

[www.cdc.gov/visionhealth/programs/vision-eye-health-tool.html](http://www.cdc.gov/visionhealth/programs/vision-eye-health-tool.html)



### Living Well with Low Vision:

This online resource educates those with loss of vision and their caregivers, on how to maintain their independence and quality of life.

<https://lowvision.preventblindness.org/>



## REFERENCES

1. Flaxman AD, Wittenborn JS, Robalik T, et al. Prevalence of Visual Acuity Loss or Blindness in the US: A Bayesian Meta-analysis. *JAMA Ophthalmol*. Published online May 13, 2021. doi:10.1001/jamaophthalmol.2021.0527
2. Prevent Blindness. Vision problems in the US: prevalence of adult vision impairment and age-related eye disease in America. Published 2012. Accessed May 17, 2021. <http://www.visionproblemsus.org/>
3. Varma R, Vajaranant TS, Burkemper B, et al. Visual impairment and blindness in adults in the United States. *JAMA Ophthalmol*. 2016;134(7):802-809. doi:10.1001/jamaophthalmol.2016.1284