

## Vision Problems in Ohio

### **The Prevalence and Cost of Vision Problems**

Half of all blindness is preventable, but the number of Ohioans who suffer vision loss continues to increase. Because of the growth in the aging population, in 2020 there were 1,729,883 Ohioans affected by vision-robbing conditions. The primary causes are diabetic retinopathy, cataract, glaucoma and age-related macular degeneration (AMD).

Vision disability is one of the top 10 disabilities among adults 18 years and older, one of the most prevalent disabling conditions among children, and causes a substantial social and economic toll for millions of people including significant suffering, disability, loss of productivity, and diminished quality of life.<sup>1</sup>

<sup>1</sup>Centers for Disease Control and Prevention. (2020, June 9). *Fast Facts of Common Eye Disorders*. <https://www.cdc.gov/visionhealth/basics/ced/fastfacts.htm>



### **The Growth of Vision Loss in Ohio**

Statistics from the 2020 *Vision Problems in Ohio* report indicate increases in the four leading causes of vision loss in Ohio since the 2014 report was issued.

- ◆ 97,870 people age 50 and older have age-related macular degeneration, a 10.5% increase
- ◆ 1,025,422 people age 40 and older have cataract, a 3.4% increase
- ◆ 294,742 people age 40 and older have diabetic retinopathy, a 3.5% increase
- ◆ 109,556 people age 40 and older have glaucoma, a 3.5% increase



### **Economic Impact of Vision Problems in Ohio**

The estimated financial burden to the Ohio economy due to vision problems, refractive errors, visual impairment, and blindness for all age groups is \$6.1 billion annually. Direct costs of approximately \$2.9 billion include diagnosed disorders, medical vision aids, undiagnosed vision loss, aids/devices, education/school screening, and assistance programs. Indirect costs of approximately \$3.2 billion include productivity loss, informal care, long-term care, entitlement programs, tax deduction, and transfer deadweight loss (loss of economic efficiency when the optimal level of supply and demand are not achieved).

### **How to Use Vision Problems in Ohio 2020**

VPOH 2020 is provided as an Ohio evidence-based resource for individuals and organizations to understand the scope and cost of vision problems to help guide health policy development/evaluation, target high risk populations, direct resources, and assist in community-based health services planning and implementation.

#### **Sources for Vision Problems in Ohio 2020:**

1. Abraham D. Flaxman, PhD. "Prevalence of Visual Acuity Loss or Blindness in the US", *JAMA Ophthalmology* (May 13, 2021), 2. David S. Friedman. 2012 Fifth Edition of "Vision Problems in the U.S." (June 2012), 3. Wittenborn, John S. & Rein, David B. "Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States." NORC at the University of Chicago. Prepared for Prevent Blindness America, Chicago, IL. (June 11, 2013). 4. U.S. Bureau Labor Statistics, Consumer Price Index for medical care (2013-2021), 5. U.S. Census Bureau Estimates 2019

# Vision Problems in Ohio

Total Population<sup>5</sup>: 11,689,100



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**References:** 1. Abraham D. Flaxman, PhD. "Prevalence of Visual Acuity Loss or Blindness in the US", JAMA Ophthalmology (May 13, 2021), 2. David S. Friedman. 2012 Fifth Edition of "Vision Problems in the U.S." (June 2012), 3. Wittenborn, John S. & Rein, David B. "Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States." NORC at the University of Chicago. Prepared for Prevent Blindness America, Chicago, IL. (June 11, 2013). 4. U.S. Bureau Labor Statistics, Consumer Price Index for medical care (2013-2021), 5. U.S. Census Bureau Estimates 2019

<http://www.visionproblemsus.org>  
<http://cvph.preventblindness.org/the-economic-impact-of-vision-problems>

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\*Direct costs include medical, long-term care, aids/devices, education/school screening, and assistance programs.

\*\*Indirect costs include productivity loss, nursing home care, informal care, etc.

**Vision Problems in Ohio 2020** provides the evidence that vision disorders and impairment are major public health problems for Ohio. This county-specific data helps those caring for the visual health and well-being of Ohioans at the community level to understand the scope and cost of vision problems to establish sound policies and interventions that can help Ohioans enjoy good sight for life.

Without early detection of eye diseases in children, families and older adults, Ohioans suffer from critical impact on their quality of life and ability to maintain independence.

Healthy vision has a critical role in every child's physical, cognitive and social development. An untreated eye condition like amblyopia (lazy eye) can lead to irreversible vision loss.

Gradual vision loss in older adults compromises their ability to conduct daily activities such as driving, walking, cooking, bathing and reading, thus reducing their independence. Glaucoma and diabetic retinopathy often produce no symptoms, and if left undetected and untreated, can lead to blindness.

Early detection of vision problems and uniform systems of accessible eye care for all Ohioans are critical components of an equitable health system that will lead to improvements in learning, socialization, job productivity, independence and quality of life.

## Prevalence of age related Eye Disease in Ohio<sup>1-2</sup>

Eye Diseases	Total	Male	Female	White	Black	Other	Hispanic
Hyperopia: Age 40+	604911	241447	363130	559008	33173	12620	8651
Myopia: Age 40+	1446476	659681	786528	1318584	89068	38133	25117
Age-Related Macular Degeneration: Age 50+	98221	33877	63993	92465	4316	1018	715
Cataract: Age 40+	1026271	402957	622465	917945	86939	22353	15655
Diabetic Retinopathy: Age 40+	294375	138593	156149	248724	34676	8335	10958
Glaucoma: Age 40+	109669	42287	67269	84397	22595	3668	1991
Blindness: Age 40+	38171	14934	23171	32337	5559	658	571
Visual Impairment: Age 40+	164106	64588	99599	136924	21593	5226	4427
<b>Total Cases</b>	<b>3,782,199</b>						

## The Economic Impact of Vision Problems in Ohio Totals \$6,098,976,052

The Economic Burden of Vision Problems <sup>3-4</sup>	Ages 0-17	Ages 18-39	Ages 40-64	Age 65+	All Ages
Population <sup>5</sup>	2,583,291	3,333,758	3,725,731	2,046,320	11,689,100
Direct Costs*	\$209,765,079	\$362,859,753	\$967,344,066	\$1,377,006,242	\$2,916,975,140
Indirect Costs**	\$27,066,462	\$521,875,216	\$501,575,370	\$2,131,483,864	\$3,182,000,912
<b>Total Costs</b>	<b>\$236,831,541</b>	<b>\$884,734,969</b>	<b>\$1,468,919,436</b>	<b>\$3,508,490,106</b>	<b>\$6,098,976,052</b>

## Common Eye Diseases



**Age-Related Macular Degeneration**  
Central vision and color perception loss, distorted or fuzzy vision, difficulty with reading or facial recognition. Leading cause of vision loss for people 65 and older.



**Glaucoma**  
Side vision loss, tunnel vision, blurred central vision, seeing colored rings on lights. More common after age 40.



**Diabetic Retinopathy**  
Patches of vision loss (floaters or blind spots), cloudy vision, glare sensitivity, decreased night or low-light vision. 40% of individuals with diabetes have diabetes-related retinopathy.