

Disparities in Vision Health and Eye Care

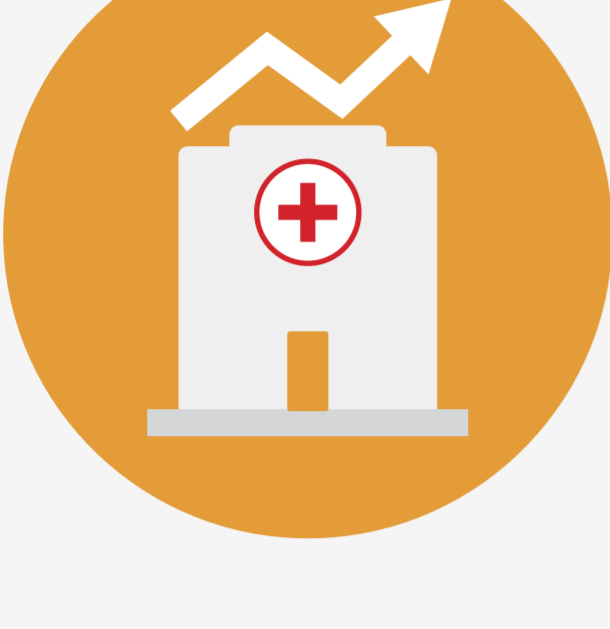
Elam AR, Tseng VL, Rodriguez TM, et al. Disparities in Vision Health and Eye Care. *Ophthalmology*. 2022;129:e89-e113. doi:10.1016/j.ophtha.2022.07.010

A health disparity is a difference in health outcomes that arises from health inequities that affect medically underserved populations. While, a health inequity is the unfair distribution of health determinants, outcomes, and resources between and within different segments of a population based on social, economic, environmental, and structural factors. The goal of eliminating health disparities is to achieve health equity, which can be defined as a state in which every individual has a just and fair opportunity to achieve their best health. Attaining this goal requires removing social, political, and structural barriers as well as differences in health and health care-related resources, access, and use. Structural racism can be defined as differential access and distribution of opportunities, goods, and services, such as healthcare, by race and is increasingly recognized as a significant contributor to societal ill, including health disparities. This summary outlines existing data on disparities in eye care and provides a framework on how to achieve equity in eye care.

Race, ethnicity, income, insurance coverage, geographic region and education are predictors of outpatient vision care use.

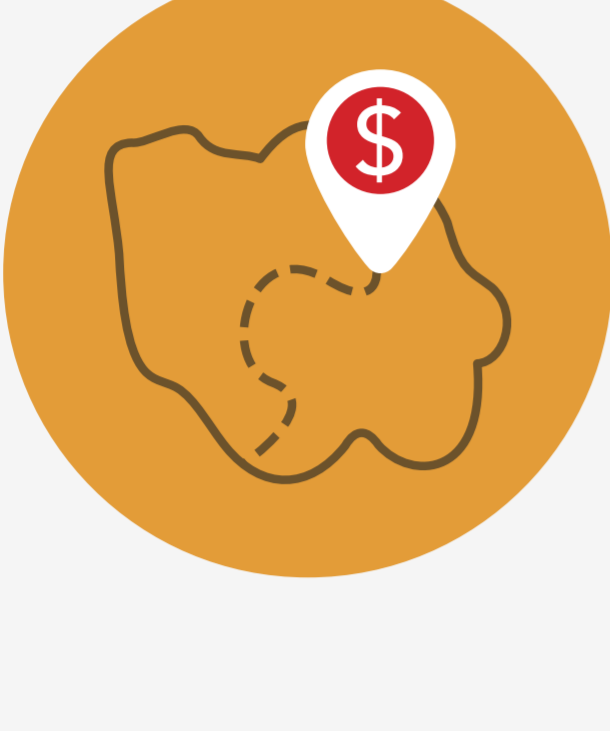
Predictors of outpatient vision care use:	Patients who seek eye care less frequently are oftentimes:
<ul style="list-style-type: none"> Race Ethnicity 	Hispanic and Black over non-Hispanic White
<ul style="list-style-type: none"> Age 	Prevalence of vision impairment and eye diseases increases with age and being over 65 may become another predictor of vision care use
<ul style="list-style-type: none"> Income Education level 	Lower income and educational level over greater affluence and more education
<ul style="list-style-type: none"> Insurance coverage 	Uninsured less than insured
<ul style="list-style-type: none"> Geographic region 	Those living in the Midwestern, Southern, or Western regions of the US over those living in the Northeastern region

Social determinants of health can create barriers to accessing eye and vision care and undermine adherence to treatment.



Ocular hospitalizations are higher where there is:

- Worse air pollution
- Severe housing problems
- Higher rates of violent crime
- Increased drug poisoning deaths
- Greater proportions of single parent households



Ability of individuals to access care can be impacted by:

- Lower SES (where fewer healthcare resources are available)
- Poorer access to transportation
- Crime

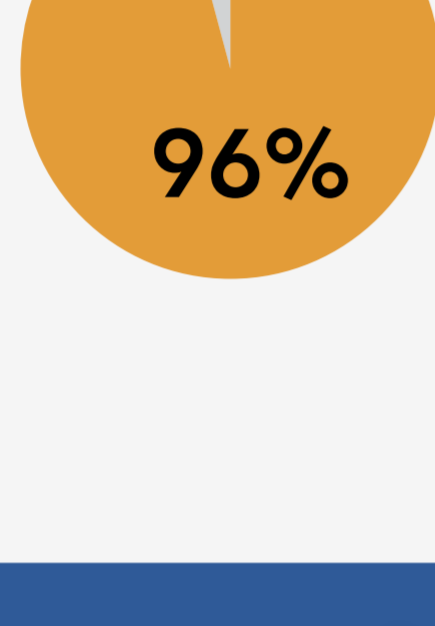
Structural racism can be defined as differential access and distribution of opportunities.

Rural and low-income populations can face obstacles to eye care services, which include lack of: accessibility, availability of professionals, knowledge, and referral.



Obstacles to care for rural and low-income populations include:

- Access to affordable coverage and services
- Availability of eye care professionals
- Knowledge about personal risks for vision impairment and blindness
- Primary care physician referral to optometry or ophthalmology

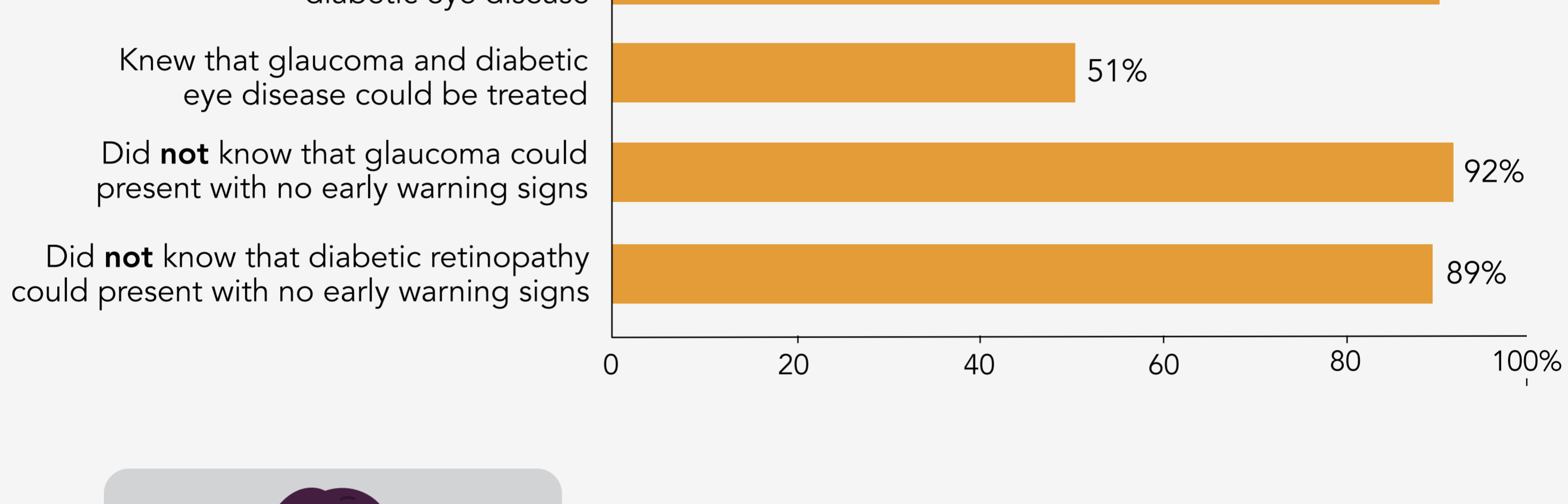


96% of respondents

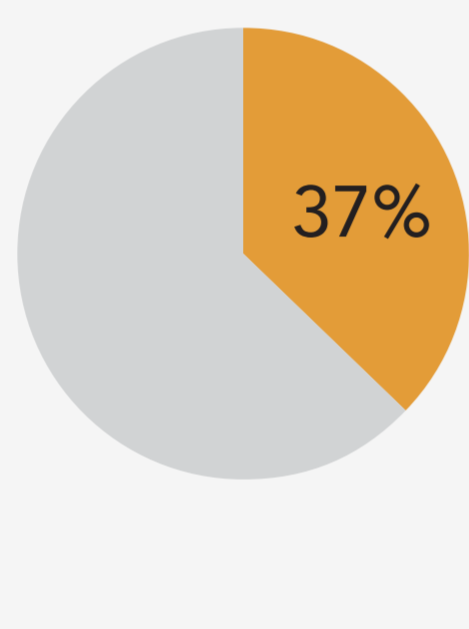
to a 2005 National Eye Institute survey indicated that they would be somewhat or very likely to seek an eye exam from an optometrist or ophthalmologist if recommended by their primary care physician.

A majority of patients may not be aware that eye diseases can be treated or detected early with health literacy being the lowest among Hispanic individuals.

Public awareness of glaucoma and diabetic eye disease



Hispanic individuals were found to have the lowest eye health knowledge and least access to eye health information.



Only 37% of American adults

from a 2019 survey of 3,512 participants knew that detectable vision loss from eye disease could in fact be asymptomatic.

Future approaches to eliminate disparities in eye care include improved access, increased workforce diversity, improved patient education, utilization of data sets, addressing gaps, and increased collaboration.

1 Improve Access to Eye Care

Federally qualified health centers	Often the primary or only source of vision care for rural and low-income populations. Currently 70% do not have on-site eye care professionals.
Patient education and engagement	Important to encourage use of existing eye and vision care both for new patients and those already in the care system.
Teleophthalmology/e-health	Expanding teleophthalmology programs in underserved areas may help increase access to eye and vision care.
Community context and resources	Understanding and utilizing contextual factors, including: demographic and social composition of communities, collective wealth and values, cultural norms, and political perspectives.
Insurance for eye care	Encouraging policymakers to expand insurance coverage of vision and eye care services can effectively increase access to care.

2 Increase Workforce Diversity

Education on implicit or unconscious bias and cultural humility, is an important first step to creating safe and inclusive workplace environments. This is for faculty, residents, and students in ophthalmology, as well as middle and upper leadership in the field.

3 Improve Eye Care Education for Patients

More research is necessary on patient preferences and needs in eye care education. Educational methods to explore include video media in examination rooms, tailored educational materials, mobile technology, and social networks.

4 Create a Continuous Improvement System through Data

	Strengths	Weaknesses
Electronic health record-based datasets	<ul style="list-style-type: none"> • Deepest phenotypic data available for ophthalmic outcomes • Contain structured data elements that are routinely entered as part of clinical care and extracted in an automated fashion for quality improvement and clinical research 	<ul style="list-style-type: none"> • Lack the breadth of medical information needed to understand a person's full health status • Lack information on those without medical insurance or who are not receiving medical care
Other types of datasets	<ul style="list-style-type: none"> • Provide more accurate measures of disparity with reduced biased toward the null hypothesis that may severely underestimate the true social inequities of ophthalmic care 	<ul style="list-style-type: none"> • Lack more granular data on ophthalmic intervention and conditions.
Creating a network of data to address disparities	Leveraging data is paramount to our success in addressing health disparities in ophthalmology. High-quality data allow researchers to connect and contextualize the factors that contribute to disparities and provide necessary information for achieving solutions.	

5 Address Gaps in Health Disparities Research Data in Ophthalmology

Much of the data on SDOH factors associated with eye care are lacking or minimal for at least three of the five pillars of SDOH. As such, expanded research into elements of SDOH and their relationship to disparities in eye health and care using common data definitions, metrics, and frameworks will be critical in reducing variation and, thus, disparities in care and vision health outcomes.

6 Expand Our Vision and Collaborations

Opportunities for enhanced collaboration	The proposed framework highlights the importance of working as an integrated community to address disparities in vision health and eye care. Within vision care, there are many opportunities to work together with optometry and ophthalmology on common issues and needs.
Learning from the international community	For transformative concepts and ideas, we can collaborate closely with our international colleagues.

Conclusions

As we continue to address disparities in eye care and vision health, it is imperative to know where we currently stand to move our field forward in an intentional and meaningful way. To progress toward eliminating disparities in eye care, we must improve access to eye care, increase diversity in our workforce, and enhance eye care and healthcare literacy in individuals and communities, all while leveraging data to improve health outcomes. Relevant stakeholders will also be part of this change, including local, state, and national government, and community and business leaders.