

SUMMARY

CHILDREN'S VISION AND EYE HEALTH: A Snapshot of Current National Issues

For the full report, please visit: <http://nationalcenter.preventblindness.org/childrens-vision-and-eye-health>

Importance of Healthy Vision for Children

Vision plays an important role in children's physical, cognitive, and social development. More than one in 20 preschool-age children and one in four school-age children have a vision disorder. Uncorrected vision problems can impair child development, interfere with learning, and even lead to permanent vision loss; early detection and treatment are critical. Visual functioning is a strong predictor of academic performance in school-age children, and vision disorders of childhood may continue to affect health and well-being throughout the adult years.

The economic costs of children's vision disorders are significant, amounting to \$10 billion yearly in the United States.

Prevalence and Impact of Vision Disorders in U.S. Children

- Nearly 3 percent of children younger than 18 years are blind or visually impaired.
- Amblyopia (sometimes called "lazy eye"), found in about 2 percent of 6- to 72-month-old children, is the most common cause of vision loss in children.
- Between 2 and 4 percent of children under the age of 6 years have strabismus.
- The most common vision disorders in children are refractive errors—myopia, hyperopia, and astigmatism.

Risk Factors for Vision Problems in Children

Both genetic and environmental factors play a role in the development of vision disorders. Family history is a risk factor for some vision disorders such as refractive error, as is premature birth. The presence of some vision disorders increases the likelihood of developing other vision disorders, such as strabismus and amblyopia. A number of neurodevelopmental disorders (e.g., cerebral palsy, Down syndrome, autism spectrum disorders, hearing impairment and speech delay) also are associated with higher rates of vision problems. The most significant preventable risk factor for visual disorders in children is maternal smoking. Children of women who smoked cigarettes during pregnancy have higher rates of strabismus, hyperopia, and astigmatism.

Access to Care

Too many children with vision disorders have unmet needs for care, leaving them vulnerable to negative effects on learning and development. Racial and socioeconomic inequities in access to care are evident across a variety of measures and studies.



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- Nearly one in four (24%) adolescents with correctable refractive error has inadequate correction.
- An estimated 6 percent of children with special health care needs (CSHCN) have unmet vision care needs.
- 14 percent had gone without needed new or replacement eyeglasses within the last year because their parents could not afford the cost.
- Nationally, only one-quarter of employees of private sector businesses have access to vision benefits through their employers.

Screening and Intervention

- Only 16 U.S. states require vision screening for preschool-age children. Few states specify vision screening protocols, and screening methods vary widely from state to state. Additionally, all Head Start and Early Head Start programs are required to have a record of a vision screening completed for all enrollees within 45 days of entry. However, there is no national protocol for conducting these screenings.
- Early detection and intervention for vision problems are incorporated into national goals and health care standards. The Healthy People 2020 Objective V-1 is to “increase the proportion of preschool children aged 5 years and under who receive vision screening.” The U.S. Preventive Services Task Force recommends vision screening at least once between the ages of 3 and 5 years.
- Due to the time-sensitive nature of amblyopia treatment, vision screening for preschool-age children is considered a cost effective investment. An analysis of the costs and outcomes of three screening scenarios found all three to be cost effective given a “willingness to pay” by policymakers of \$4,000 to \$10,500 for each case of visual loss prevented.
- Healthy People 2020 uses the 2008 National Health Interview Survey for baseline data on vision screening. In that survey, 40 percent of children age 5 years and younger had ever had their “vision tested by a doctor or other health professional.” This estimate is consistent with the 2011 National Survey of Children’s Health, which found that 40 percent of children age 5 years and younger had ever had their vision tested.

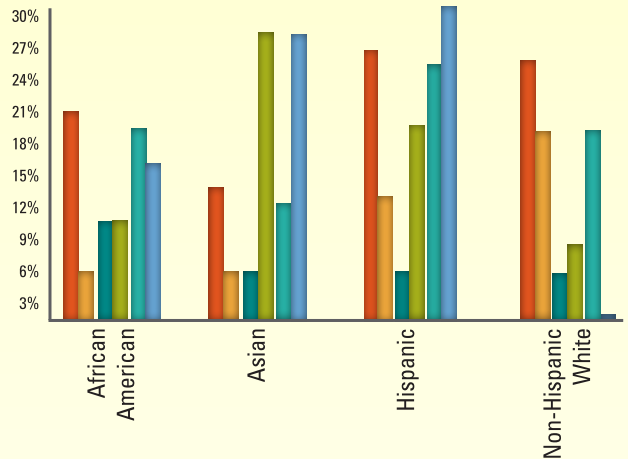
Creating Effective State Systems for Children’s Vision

State advocates and program and policy decision makers have multiple “entry points” to the system of services affecting children’s vision and eye health. Actions that strengthen screening protocols, improve access to diagnostic exams and treatment, and bolster capacity for surveillance and performance measurement all contribute to the development and support of a comprehensive approach. These actions could include:

- Examining existing data to identify geographic, socioeconomic, and racial disparities in access to services and outcomes.
- Identifying gaps in data capacity.
- Clarifying existing state mandates, protocols, and guidelines for vision screening, and gauging the uniformity of their application across jurisdictions and the degree to which they align with current standards of practice.
- Convening stakeholders for priority setting and planning.

Prevalence of myopia, hyperopia, and astigmatism by race/ethnicity in U.S. children 6-72 months of age

Prevalence of myopia, hyperopia, and astigmatism by race/ethnicity in U.S. children ages 5-17 years



Percent screened by insurance coverage

Public insurance (such as Medicaid/SCHIP)	63%
Private health insurance	72%
Uninsured at time of survey	58%

Percent screened by race/ethnicity

Hispanic	57%
White, non-Hispanic	72%
Black, non-Hispanic	71%
All other, non-Hispanic*	65%