Early Detection of Myopia: What We Know, What Else We Need to Know

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Our Vision Is Vision.

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Our mission is to prevent blindness and preserve sight.

The National Center for Children's Vision and Eye Health

Our mission is to improve children's vision through strong partnerships, sound science, and targeted public policy.

- Public and professional education
- Advocacy
- Certified vision screening training
- Community and patient engagement programs

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Topics

Holistic approach to ensuring equity in children's vision and eye health.

Federal and state policies, professional association guidelines, and programs for children's vision screening that contribute to early detection of myopia.

Available data on vision screening, gaps in data, and recommendations for improved surveillance.

Recommendations for policy, practice, and interagency and multidisciplinary collaboration.

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Holistic Approach to Promote Eye Health Equity: What We Need to Do?

Ensure those most at risk of vision disorders have access to a strong system of care (vision screening, eye examinations, and treatment) to reduce the incidence of unnecessary eye disease and improve learning opportunities, improved vision health, and future success.

- Strong policies
- Parent education (including myopia prevention strategies)
- Vision screening
- Referrals to eye care
- Eye care & treatment
- Coordination between providers and screening programs
- Coordination between health and education sectors
- Data collection & surveillance
- Continuous quality improvement and program evaluation

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Holistic Approach to Promote Eye Health Equity: Who Do We Need to Involve?

- ❑ Families
- ❑ Family Engagement and Support organizations
- ❑ Schools (Teachers, Administrators, School Nurses and Special Education)
- ❑ Early Childhood Education and Care (Including Head Start)
- ❑ Primary Care
- ❑ Eye Care
- ❑ Public Health
- ❑ Community Organizations
- ❑ Policy makers

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Vision Screening Guidance, Legislation, Objectives: Who is Providing Vision Screening?

Consensus Recommendations

- AAP, AAO, AAPOS, AACO
- NCCVEH

States

- Guidelines and requirements for schools and preschools (state and district)
- EPSDT periodicity

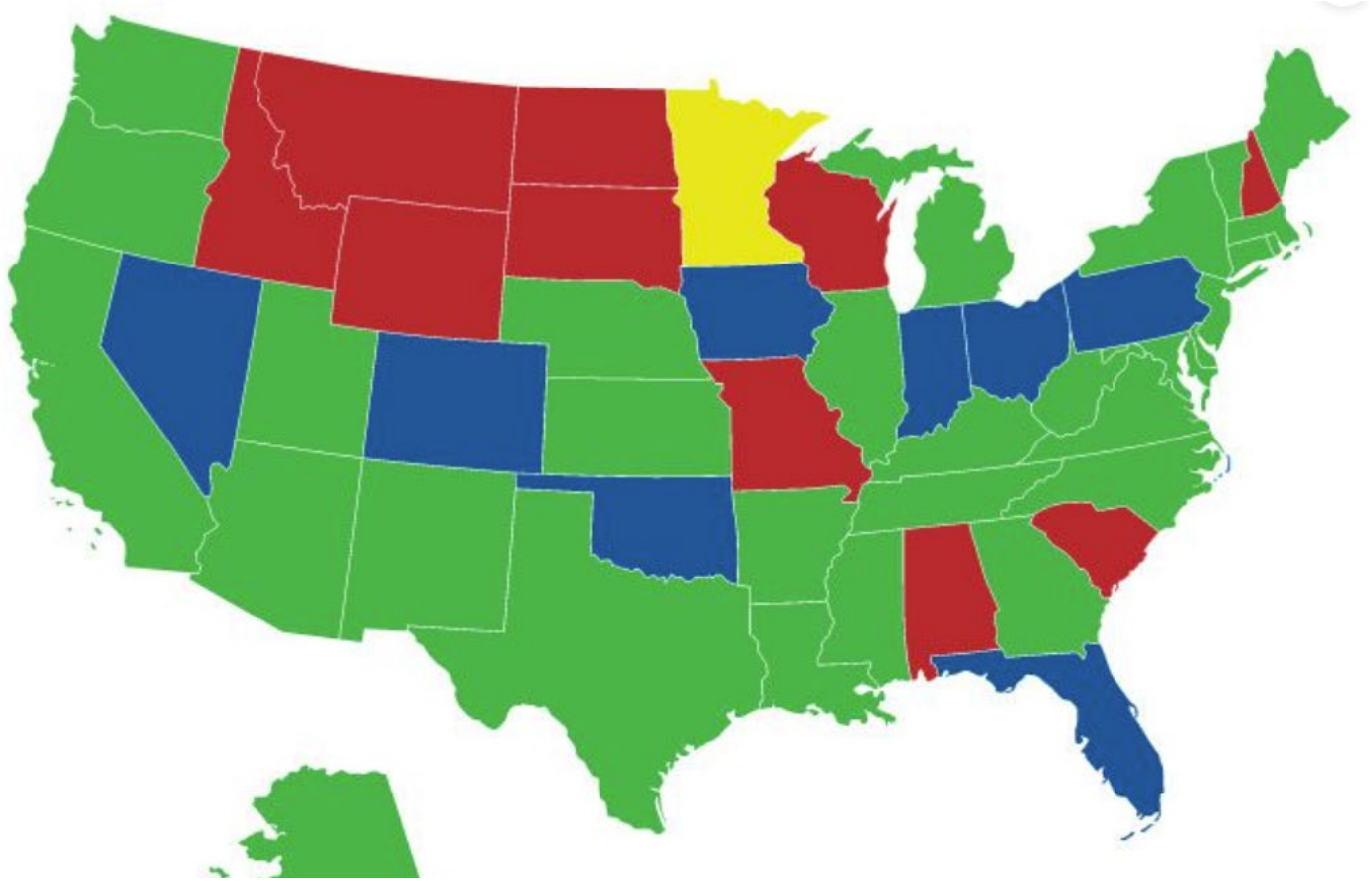
Federal Government

- Head Start
- EPSDT/Medicaid
- HP 2030, USPSTF
- HRSA/AAP: Bright Futures
- NASEM
- CDC: Refugees, NCBDDD

Gaps

- **Lack of uniformity**
- **Bundling of EPSDT = lack of data**
- **No federal guidance/requirements for school vision screening**
- **Office of Inspector General HHS: 4:10 children not receiving vision screening (2010)**
- **Eye care not required in FQHCs**
- **Medicaid "Unwinding" with ending of public health emergency**

School-Based Vision Screening: State by State



Vision and Eye Health Requirements by State

Pre-K + School-age

Pre-K Only

School-age Only

None

Sources:

NCCVEH (2023) Children's Vision Screening Requirements by State - National Center (preventblindness.org)

Wahl, MD, Fishman, D, Block, SS, et al. 2021.

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Vision Screening Programs: Community Innovation

Schools and Early Childhood Programs

Medical System

Community-level Health Interventions

Gaps

- *Medically underserved children and those experiencing the Social Determinants of Health less likely to receive screening*
- Different screening methods
- Not all evidence-based
- Different referral criteria
- Lack of time, ability, requirements for ensuring eye care receipt
- Programs lack uniformity across states
- Lack of uniformity in funding
- Expensive/lack of funding for referral follow-up

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Are Children Actually Receiving Screening?

What We Know

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Surveillance and Data

Who Collects Data?

- National Survey of Children's Health- annual (parent report)- HRSA/MCHB
- NHANES (2008)
- IRIS Registry
- States (public health, education, human services)

Findings from NSCH

Children less likely to receive screening if:

- Family does not speak English (or Spanish) at home
- Parents born outside U.S.
- Public or no insurance
- Children are under 6 or older than 12 years of age
- Black and Brown children receive less screening and eye care

Gaps

- No comprehensive data collected at any periodicity (beyond parent report)
- Lack of federal requirements for surveillance
- Not all children have equal access to vision screening or eye care and treatment
- VEHSS for children 12+, only ophthalmology data. (Lower ages projected for 2025)
- EPSDT- Most states bundle all screenings. Mandated reporting of core child set for "well child checks" beginning in 2024: vision screening removed from report form
- States lack uniformity in data collection

What Research and Data are Needed?

Recommendations

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Improving Surveillance and Research: Recommendations

- Address gaps in data collection
- Unbundle vision from EPSDT for separate reimbursement and data collection and require uniform data reporting
- Collect comprehensive information in screening programs and unify vision screening data from disparate sources
- Research on vision screening efficacy, social determinants of health impacting vision screening, and gaps in data
- Research on effective interventions to improve rates of eye care after screening

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Policy Recommendations

How Can We Ensure a Strong Vision and Eye Health System?

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Policy Changes to Improve Vision and Eye Health Equity for Children: Recommendations

- Establish federal and state requirements for schools (with funding): uniform screening systems to include training and certification, evidence-based screening methods, case management for ensuring follow-up on referrals for eye care, eye care and treatment receipt, tracking, and data collection.
- Promote interagency collaboration and partner coordination (federal and other key stakeholders on state and local levels, patients/parents).
- Address the Social Determinants of Health that impede equitable access to care through Medicaid and other funding programs.
- Initiate broad public and provider education on myopia and other vision disorders to enhance prevention and promote early intervention.
- Establish accountability and performance measures for vision health in health insurance programs, children's developmental screening, well-child checks, school screening.
- Integrate evidence-based vision screening and eye care into Community Health Centers/FQHCs and School-Based Health Centers.

Thank you

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