



THE FUTURE OF EYE CARE FOR CHILDREN



Part one of this multi-part series analyzes proposed legislation to support early eye care intervention in children.

BY LORI LATOWSKI GROVER, OD, PHD, FAAO, DIPL AAO, FIOMC

In the United States, the practice of primary eye care—specifically, evidence-based eye examination—allows children to receive diagnosis and essential treatment for more than 270 ocular conditions, including myopia, binocular dysfunction, and chronic vision impairment.¹ Evidence-based comprehensive eye care is recognized as the gold standard to most accurately identifying and diagnosing eye and vision conditions.²⁻⁴ However, decades-long deficiencies in both early access to and uptake of comprehensive primary eye care by infants and children has only recently resulted in recognition of this problem as a significant public health concern

in the United States.^{2,5,6} It was only in 2017 that the United States Preventive Services Task Force (USPSTF) report provided support for any type of "vision screening," assigning an evidence grade of B for screening of a single eye/vision condition in a narrow segment of the pediatric population—specifically, amblyopia in children 3 to 5 years of age.⁷

Successful health advocacy over the past decade has resulted in important gains. In addition to increasing acceptance of comprehensive eye examination as the gold standard to most accurately identifying and diagnosing eye and vision problems,² the Affordable Care Act safeguards

eye and vision care for children from birth to 18 years of age as an essential health benefit in all qualified health plans, mandating coverage by insurers for examination and treatment in almost all states.^{5,8} In aiming to further improve public health and health equity, collaborators need to recognize previously identified shortcomings in accessing and using eye care.²⁻⁵ This is especially important for children of lower socioeconomic status or at risk from other disparities relative to social determinants of health.⁹

In the context of this ongoing policy issue, the first part of this series provides an analysis of the recently proposed Early Detection of Vision

Impairments in Children (EDVI) Act to discuss its limitations in addressing the landscape of US recommendations for early evidence-based optometric primary eye and vision care for children.

WHAT IS THE EDVI ACT?

The EDVI Act was introduced on May 14, 2024, as an attempt to improve early primary eye care intervention and treatment for children. According to the press release introducing the act, “There is currently no federally funded program that addresses children’s vision or that fosters a cohesive and integrated system of eye health for children.”¹⁰ The overview below from this press release states the aims of the proposed EDVI Act.

“Under the EDVI Act, the Health Resources and Services Administration (HRSA) at the [United States] Department of Health and Human Services (DHHS) will award grants and cooperative agreements for states and local communities to:

- implement approaches (such as vision screenings) for the early detection of vision concerns in children, referrals for eye exams, and follow-up mechanisms;
- identify barriers in access to eye care and strategies to improve eye health outcomes;

- raise awareness about the importance of early interventions and screenings;
- establish a coordinated public health system for vision health and eye care diagnosis and treatment; and
- develop state-based data collection, quality monitoring, and performance improvement systems.

Resources will also be made available through the Centers for Disease Control and Prevention (CDC) to provide technical assistance and guidance to states and communities to implement children’s vision screening and early intervention programs.”¹⁰

Background

The EDVI Act reflects earlier findings originating in the 2016 landmark national eye care and population health-related report from the National Academies of Sciences, Engineering, and Medicine (NASEM),² which identified the following key eye- and vision-related recommendations to improve the nation’s health:

- development of a US public health awareness campaign
- establishment of a new US national surveillance and research agenda addressing vision and impairment

- creation of national evidence-based guidelines, measures, and policies
- alignment of public health and clinical practice objectives
- CDC partnership with state-based chronic disease programs and stakeholders; and
- enhanced public health capacities to support vision-related actions.

The proposed EDVI Act states that it will “award grants and cooperative agreements for states and local communities” to “increase screenings and early interventions.” However, the lack of national evidence and previously identified shortcomings related to vision screening is not reflected. Listed under the aims of the EDVI Act, the term *screening* and its implementation is mentioned multiple times without definition, context, or clarification.¹⁰ This reinforces confusion and misalignment with previously identified NASEM evidence-based recommended actions to achieve health and health equity for all children.

The EDVI Act would also direct the HRSA at the DHHS to “award grants and cooperative agreements for states and local communities” to meet the aims outlined in the act.¹⁰ The 2020 American Public Health Association (APHA) policy statement indicates there is “little or no coordination of existing vision care services in state health department programs” and suggests the Maternal and Child Health Bureau of the HRSA is “well-positioned to coordinate collaboration between governmental and private organizations.”⁵ However, the EDVI Act does not reflect other APHA-recommended actions for increasing access to evidence-based eye examination.^{5,6}

LACK OF CLARITY

Barriers to primary care are well-defined within the literature—including those resulting from longstanding vision screening actions and continued lack of public

AT A GLANCE

- ▶ The Early Detection of Vision Impairments in Children (EDVI) Act was introduced as an attempt to improve early primary eye care intervention and treatment for children with frontline promotion of “vision screening.”
- ▶ “Vision screening” in the United States has yet to be defined, researched, and fully adopted as a safe preventive health measure.
- ▶ How the EDVI Act will specifically address existing recommendations for increased access to, use of, and referral for optometric eye care is unknown.

THE DEADLY SEVEN

From the public health perspective, an effective screening must be valid, sensitive, specific, and reliable. It must accurately represent targeted health outcomes for a group of individuals and properly assess the distribution of outcomes within the targeted group. In 2022, I identified seven critical shortcomings to achieving health and health equity associated with current US vision screening standards¹:

1. Lack of evidence
2. Potential harms to health
3. Undocumented health benefits
4. Limitations in diagnostic efficacy and follow-through
5. Lack of standardized criteria
6. Lack of nationally recognized definition
7. Conflating vision screening with optometric eye care

Without research to unveil fundamental data on vision screening, there is limited opportunity to properly identify targeted health problems or conditions for screening intervention. Aside from amblyopia screening in children 3 to 5 years of age, vision screening does not merit the same presumption of value that the US health community affords other screenings recommended by the United States Preventive Services Task Force, such as mammography, colonoscopy, and screening for hypertension.

1. Grover LL. Vision screening and US population health, part 2: what you need to know. *Modern Optometry*. 2022;5(1):26-29.

awareness—yet these relationships are not acknowledged or clearly outlined in the EDVI Act. Similarly, there is a lack of detail on how the act will better position doctors of optometry to provide the majority of primary eye care in the United States and how the act will prioritize access to and use of existing evidence-based eye examination.

Why Evidence-Based Care Matters

The nation's key driver for preventive health screenings and services is the USPSTF, an independent group of

national experts who create evidence-based recommendations.¹¹ For example, insurers must cover any preventive services assigned a grade of A or B by the USPSTF. The Agency for Healthcare Research and Quality (AHRQ) is authorized by Congress to provide support to the USPSTF, including creating evidence reports, ensuring the use of USPSTF methods, and disseminating recommendations.

Existing US vision screening data—and subsequent policy recommendations—remain disparate

and fragmented.¹² For decades, no universally accepted definition or recognized evidence-based process of vision screening has been adopted among clinicians, researchers, health care professionals, states, school districts, service organizations, or other entities that promote screening. For example, the USPSTF still refers to its 2017 findings on amblyopia screening for children 3 to 5 years of age as "vision screening."⁷ Moreover, vision screening versus eye examination in infants and children has yet to be evaluated for comparative effectiveness and health outcomes. Screening that targets some children instead of supporting evidence-based primary eye examination for all children perpetuates health disparities, and vision screening has not been shown to ensure equitable care or health outcomes for children most at risk in the United States.

Moreover, US vision screening approaches can harm children's health for many reasons, including by creating delays in accessing care and early treatment for missed diseases or conditions that can be identified with evidence-based eye care examination (see more details in *The Deadly Seven*). Neglecting primary eye examination as a frontline health care approach delays interventions that could otherwise prevent negative health outcomes and reduce disparities. The EDVI Act does not clearly acknowledge this evidence in support of improving children's overall health.

Interested Parties

Several organizations listed as supporters of the EDVI Act were also sponsors of the earlier NASEM report,^{2,10} but some organizations supporting the NASEM report are not on the EDVI Act's roster, including the AHRQ, USPSTF, APHA, the Association for Research in Vision and Ophthalmology, National Eye Institute, Children's Health Insurance Program, Centers for Medicare and Medicaid Services, and various health



policy experts, such as the RAND Corporation, Commonwealth Fund, and Kaiser Family Foundation.¹⁰

Historically speaking, most of the listed EDVI Act sponsors support and promote existing vision screening approaches.¹⁰ In contrast to previous advocacy, and new to this group of supporters of the EDVI Act, is the American Optometric Association (AOA) 2024 board of directors. For decades, the AOA has recognized and promoted comprehensive eye examinations as essential frontline primary health care for children, and as a sponsor of the nationwide InfantSEE program since 2005, it has supported recommendations for eye examinations in infants 6 months of age.

The AOA's Evidence-Based Clinical Practice Guideline for the Comprehensive Pediatric Eye and Vision Examination was developed following stringent national AHRQ and Institute of Medicine recommendations and serves as contemporary US evidence-based eye examination and clinical care guidance for lifelong health.¹³ The AOA President states that "disparity in access to children's vision care is a crisis that can only be solved by unifying the industry" in

explaining the organization's recent advocacy choice of supporting the EDVI Act.¹⁴ How the EDVI Act will specifically increase access to, use of, or referral for optometric eye care—including support for needed evidence-based health research on vision screening, strategic actions, policy development, and resource use that improves children's health and health equity—is still unknown.

THE FUTURE OF PEDIATRIC EYE CARE

Recognition of the value of primary eye care has gained momentum and strength in recent decades. Support for access to comprehensive eye examination is recognized by a larger and more diverse group of health care stakeholders as fundamental to improving health. Although the EDVI Act may strengthen relationships and aid in reaching a consensus on how children's health can be improved using existing primary optometric eye care under the current system, there is a risk of loosening or even breaking important eye care-related guardrails on children's health and safety already in place.

The next part of this series will analyze the potential benefits, risks,

health outcomes, and future effects on doctors of optometry with a focus on identifying evidence-based actions to ensure health and equity in children's eye and vision care. ■

1. Updated clinical guideline reinforces importance of annual eye exams, comprehensive eye care with doctors of optometry [press release]. American Optometric Association. March 2023. Accessed June 1, 2024. www.aoa.org/about-the-aoa/press-room/press-releases/updated-clinical-guideline-reinforces-importance-of-annual-eye-exams-comprehensive-eye-care-with-doctors-of-optometry?ss=0
2. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Public Health Approaches to Reduce Vision Impairment and Promote Eye Health. Making eye health a population health imperative: vision for tomorrow. Welp A, Woodbury RB, McCoy MA, Teutsch SM, eds. Washington (DC): National Academies Press (US); 2016.
3. Grover LL. Vision screening and US population health: what you need to know. *Modern Optometry*. 2021;4(7):55-58.
4. Grover LL. Vision screening and US population health, part 2: what you need to know. *Modern Optometry*. 2022;5(1):26-29.
5. American Public Health Association. Policy statement 20202. Increasing access and reducing barriers to children's vision care services. October 2020. Accessed May 30, 2024. apha.org/Policies-and-Advocacy/Public-Health-Policy-Statements/Policy-Database/2021/01/12/Increasing-Access-and-Reducing-Barriers-to-Child-Vision-Care-Services
6. American Public Health Association. Policy statement 20191. Coordinated nationwide approaches to promote eye health and reduce vision impairment. November 2019. Accessed June 1, 2024. www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2020/01/10/coordinated-nationwide-approaches-to-promote-eye-health-and-reduce-vision-impairment
7. US Preventive Services Task Force. Vision in children ages 6 months to 5 years: screening. September 2017. Accessed May 30, 2024. www.uspreventiveservicestaskforce.org/uspstf/recommendation/vision-in-children-ages-6-months-to-5-years-screening
8. HealthCare.gov. Health benefits and coverage. Accessed June 3, 2024. www.healthcare.gov/coverage/what-marketplace-plans-cover/
9. Grover LL. Why health equity matters. *Modern Optometry*. 2022;5(7):15-17.
10. Veasey and Bilirakis introduce bill to address children's vision and eye health [press release]. Congressman Marc Veasey. May 14, 2024. Accessed May 24, 2024. veasey.house.gov/media-center/press-releases/veasey-and-bilirakis-introduce-bill-address-childrens-vision-and-eye
11. US. Preventive Services Task Force. Recommendations. Accessed May 29, 2024. www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P
12. US Preventive Services task Force. Accessed June 2, 2024. www.uspreventiveservicestaskforce.org/uspstf/index.php/
13. Children's Nebraska. Visionmobile. Accessed June 3, 2024. www.childrensnebraska.org/visionmobile/
14. American Optometric Association. AOA sees positives in federal children's eye health legislation. Accessed May 24, 2024. www.aoa.org/news/advocacy/federal-advocacy/aoa-sees-positives-in-federal-childrens-eye-health-legislation?ss=0

LORI LATOWSKI GROVER, OD, PHD, FAAO, DIPL AAO, FIOMC

- Board of Directors, American Society of Optometric Surgeons
- Senior Fellow, National Academies of Practice
- Committee on Health Equity, American Public Health Association
- groverodphd@gmail.com; Instagram @lgrover3
- Financial disclosure: None