



Childhood Vision:

PUBLIC CHALLENGES & OPPORTUNITIES

A Policy Brief



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Introduction to the Issue

Approximately 13.5 million children ages zero to seventeen are affected by some form of vision problem.^{1,2} Although early detection of vision problems is key to protecting children's vision, vision screening and eye exam rates are low among preschool children,^{3,4,5} where the potential for optimal treatment is greatest. Rates also remain low among school-age children when vision problems can increasingly impede learning.⁶

Healthy vision is basic to school achievement. Support for No Child Left Behind legislation,⁷ Healthy People 2010's recommendations⁸ and the increased use of computers are all factors that have led to the examination of our success in identifying and treating children with vision problems. State legislatures, local school districts and federal government agencies have all begun to re-assess the effectiveness of strategies they use to assure that vision problems do not become barriers to healthy child development and academic performance.

Some eye care and public health professionals have argued that every child should receive a comprehensive examination by an optometrist or ophthalmologist before school entrance.^{9,10} Other eye care and medical professionals maintain that vision screening is a cost-effective method for identifying those who would benefit from eye exams.¹¹ These competing recommendations for how best to identify children with vision problems is prompting new research on the costs and benefits of various strategies¹² including an examination of the impact of untreated vision problems on school performance.^{13,14}

This policy brief provides a framework for policy makers, educators and parents to assess the adequacy of current strategies to identify children with vision problems. The paper will outline issues in vision testing for children, describe programs and policies currently in place, summarize select state and federal initiatives (Appendix 1), and discuss policy options for assuring that children's vision problems are identified and treated in a timely manner.

Methodology

In early 2004, the Vision Council of America (VCA) asked the Center for Health and Health Care in Schools (Center) to undertake two projects: development of a Childhood Vision Fact Sheet¹⁵ and preparation of a paper that explores directions for public policies to address identification and treatment of childhood vision problems. Together these two documents investigate the research on what is known about childhood vision problems and the mechanisms in place to identify problems and secure treatment for preschool and school-aged children. In addition to the research review, findings in this paper are drawn from telephone interviews with health care professionals, representatives of eye care professional organizations, state and local health departments, local school districts, and Federal agencies.

Vision Problem Warning Signs

- ◆ Eyes turning inward (crossing) or outward
- ◆ Squinting
- ◆ Headaches
- ◆ Not doing as well in schoolwork as before
- ◆ Blurred or double vision
- ◆ Losing place while reading
- ◆ Avoiding close work
- ◆ Holding reading material closer than normal
- ◆ Tending to rub eyes
- ◆ Eyes tiring when reading or doing schoolwork
- ◆ Turning or tilting head to use one eye only
- ◆ Making frequent reversals when reading or writing
- ◆ Using finger to maintain place when reading
- ◆ Consistently performs below potential

US Dept. of Health and Human Services. AHRQ. Put Prevention into Practice: Child Health Guide. Publication No. APPIP 98-006. Current as of January 2003.

Harris P. Learning related visual problems in Baltimore City: A Long-term program. JOVD. 2002;33:75-115.

American Optometric Association. Children's vision: school-age vision. Available at www.aoa.org.

Vision Problems among U.S. Children: What the Data Tells Us

Data on the prevalence of vision problems in preschool and school-aged children are sparse. While there have been small scale studies, the most recent national data on the prevalence of vision problems in children is drawn from the 1971-72 National Health Information Survey published in 1983.¹⁶ That said, here is what is known about children's vision problems.

- Vision problems are common among children. Nearly 13.5 million children ages zero to seventeen are affected by some form of vision problem.^{17,18}
- Many preschoolers have treatable vision problems. Vision problems affect as many as 2.4 million children ages zero to four.^{19,20}
- Rates of vision problems rise as children get older. Among school-aged children ages 6 to 11 years old, an estimated 21.5% have a vision problem. Rates for 12 to 17 year olds are estimated at 24%.^{21,22}
- Early detection of vision problems is key. Optimum treatment for eye conditions such as amblyopia (lazy eye), crossed eyes or eyes that turn outward, require early detection, usually well before age 5, otherwise irreversible visual deficits, including blindness, may occur.^{23,24}
- Screening rates for preschoolers are low. It is estimated that only 21% of preschool children are screened for vision problems.²⁵
- Screening rates for school-aged children are not available except on a limited state-by-state basis. For example, 70% of children in 110 districts in Massachusetts were screened during the 2002-2003 school year.²⁶
- Exam rates for school-aged children are low. The rate for school-aged children who receive an eye exam by an eye care practitioner before entering school ranges from 5% to 14%.²⁷
- Low follow-up rates and delayed treatment plague children's vision screening programs. Follow-up rates of less than 33% for children identified with vision problems through a screening exam have been reported.²⁸ Even when follow-up completion rates reach over 80%, treatment was delayed for two years and was only performed after a second or third

abnormal school screen and referral letters were sent to parents.^{29,30,31}

A History of the Public Policy and Program Responses to Childhood Vision Problems

School health programs became a way to address children's health issues in the late 1800s when school and health officials reasoned that school was a logical place to establish organized mass screening programs.^{32,33} Because schools provided access to children ages five and up and the public was committed to achieving some standard of health for all social groups, this mechanism worked well.³⁴

In 1899, Connecticut introduced the first state-supported school vision-testing program using the Snellen chart. Even as the first screening programs were being introduced, issues were being raised. Results with the first screening program were not reliable because testing conditions were not standardized. In addition, some noted that while there were sufficient funds for screening programs, funds were not available to treat the identified problems.³⁵

In 1938, Dr. Albert E. Sloane developed the first vision test with medical input, the Massachusetts Vision Test. The objective of the screening test was to "determine the presence of impaired vision by rapid, accurate methods and then to elicit the cause of the defect by an ophthalmologist."³⁶ While Dr. Sloane advocated eye screenings as a part of well-child visits, he realized that some children would be missed if only pediatricians were involved and advocated for school-based screenings. The Massachusetts Vision Test included tests for visual acuity, farsightedness and ocular alignment.³⁷ Establishing consistent passing criteria was the main problem identified with this screening test.³⁸

In the 1940s and 1950s, researchers evaluated the Massachusetts Vision Test and recommended changes. These and subsequent changes were seen as making the test a more accurate, efficient way of identifying vision problems. In the mid 1950s, optical companies introduced several vision screening units that

incorporated the three components of the Massachusetts Vision Test.³⁹ These commercial units offered low cost and rapid testing. The questions remained, however, of how to lower the under-referral and over-referrals rates, who should conduct the screening and how often, and what type of follow-up should be encouraged.⁴⁰

Today, the Snellen chart is still the screening tool most used to test visual acuity. The choice of screening tests depends on the age of the child. However, except in the area of amblyopia, which responds more favorably to treatment when detected early, and the development or modification of testing instruments for preschool children, screening protocols have essentially stayed the same since 1938.⁴¹

Vision Skills Needed in School

- ◆ Near vision. The ability to see clearly and comfortably at 10-13 inches.
- ◆ Distance vision. The ability to see clearly and comfortably beyond arm's reach.
- ◆ Binocular coordination. The ability to use both eyes together.
- ◆ Eye movement skills. The ability to aim the eyes accurately, move them smoothly across a page and shift them quickly and accurately from one object to another.
- ◆ Focusing skills. The ability to keep both eyes accurately focused at the proper distance to see clearly and to change focus quickly.
- ◆ Peripheral awareness. The ability to be aware of things located to the side while looking straight ahead.
- ◆ Eye/hand coordination. The ability to use the eyes and hands together.

American Optometric Association. Children's vision: school-age vision. Available at <http://www.aoa.org>.

Legislative and Regulatory Measures to Address Children's Vision Problems in the 21st Century: Where We Are Now

Currently there are three major approaches to identifying children with vision problems:

- School-based vision screening programs
- Community-based or office-based screening programs
- Comprehensive eye examinations conducted by optometrists and ophthalmologists

A key step towards understanding the issues involved in assuring universal identification and treatment of children with vision problems is to understand what is involved in each of these approaches.

State-mandated school-based screenings:

The goal of vision screening is to identify children at risk for vision problems. Screening tests are not diagnostic tools and therefore cannot diagnose a vision problem;⁴² rather it is the first step in determining which children should be referred to appropriate eye care professionals. School vision screening exams usually focus on detecting the following:

- *Amblyopia*, found in 2-4% of children, is reduced visual acuity in an otherwise normal eye. Visual acuity is defined as clarity of sight, generally referring to the ability to see things clearly from a specific distance. Vision screeners typically test distance acuity for both eyes with one of several charts: Snellen charts, Snellen "Tumbling E" chart, picture tests or Allen figures. The test with the highest cognitive difficulty that the child is capable of performing should be used; in general, the Tumbling E chart should be used with children ages 3 to 5 years old and Snellen letters or numbers with children aged 6 years and older.⁴³
- *Strabismus*, affecting about 5% of children, is misalignment of the eyes that results in eyes that turn outward or inward, either constantly or episodically. The American Academy of Pediatrics' guidelines recommend testing for ocular alignment using the unilateral cover test or the Random-dot-E stereo test⁴⁴.
- *Refractive errors*, found in up to 15% of children, consist of a category of vision problems that refers to a loss of visual acuity. This includes myopia, also known as nearsightedness and hyperopia, also known as farsightedness. The loss of acuity is due to improper light refraction as a result of the shape of the eye. The result is a blurred image.⁴⁵

Thirty-nine states and the District of Columbia have enacted policies that either recommend (10 states) or require (29 states and the District of Columbia) school-based vision screenings. Only one state, Kentucky, mandates comprehensive eye exams. (Table 1) School nurses, technicians or trained volunteers generally provide these and other screening services to a targeted population, for example pre-kindergartners, kindergartners, 1st, 3rd and 7th graders, throughout a child's school years.⁴⁶ Typically, the school reports results to the parents, with recommendations for follow-up if necessary. Data are collected by the school district from individual schools and reported to the state agency responsible for monitoring health services. There is no federal agency that routinely collects this information. Thus there are no current data nationally on the number of students screened at school. Equally relevant, while states may give a list of recommended screening instruments, school districts do not appear to report the screening tools used and generally report only pass and failure rates.⁴⁷

School vision screenings are provided at no charge to the parents and are funded by either local or state public health or education funds.

Common Screening Instruments

Snelten Chart - Developed in 1862 by Dr. Hermann Snelten, the chart has a series of letters and numbers with the largest at the top.

Snelten Tumbling E Chart - Similar to the Snelten chart but with the letter E only pointing in different directions. The person being tested must determine which direction the capital letter 'E' is facing.

Unilateral Cover Test - Eye alignment is assessed using a cover-uncover test at distances. Using a paddle to cover one eye, the person being tested is asked to look at a detailed standardized fixed target. The screener observes the uncovered eye to determine if refraction occurs.

Random-dot stereo Test - This test of depth perception is designed specifically for use with children. The patient is asked to distinguish between a "Raisers E" and a non-stereo target. The figures cannot be identified without glasses to discourage guessing.

Vision in Preschool Study Group. Comparison of Preschool Vision Screening Tests Administered by Licensed Eye Care Professionals in the Vision in Preschools Study. Ophthalmology. 2004;111(4):676-80

Table 1
Status of State Policies on Vision Testing

State regulation	No. of States	States
States that do not recommendation or require vision screening	10	AK, AZ, ID IN, MO, MT, NV, OR, SD, WY
States that require vision screening	30	AL, AR, CA, CO, CT*, DC, DE, FL, GA, IL**, KS, LA, MD, MA*, MI, MN, NE, NJ, NY, NC, OH, PA, RI, TX, UT, VT, VA, WA, WV, WI
States that recommend vision screening	10	HI, IA, ME, MS, NH, NM, ND, OK, SC, TN
States that require comprehensive vision exam	1	KY

**both recommends and requires eye screening
*MA and CT recently passed mandatory vision screening legislation

Source: American Academy of Ophthalmology, State Affairs Secretariat Eye Screening, State Status, July 29, 2002

Office-based vision screening: For the majority of children under the age of three, vision screenings, when done, are performed during well-child visits by physicians and their staff at physicians' offices or other ambulatory care sites. The results are given to the parents for follow-up as necessary. Vision screening during a preschool physical exam may be used to satisfy the vision-screening requirement for schools entrance. The American Academy of Pediatrics Vision Screening Guidelines recommend that children age six and up should be tested for distance visual acuity and ocular alignment.⁴⁸ Little is known about office-based vision screening by pediatricians, either how many children are screened or how many are referred for a diagnostic exam. In a small study of pediatricians conducted by the American Academy of Pediatrics' Research in Office Setting Network, only 66% of children ages three to five years old in a group of 102 pediatric practices covering 23 states, received vision screenings.⁴⁹ No data on office-based vision screenings for older children are available.

Charges for these screenings during office visits are generally wrapped into the well-child or EPSDT examination and are paid for through public or private insurance.

Eye examinations by optometrists and ophthalmologists: A more limited number of children receive complete eye examinations. Studies of eye examinations conducted by optometrists and ophthalmologists estimate that only 5% to 14% of students receive exams before they enter school.⁵⁰ Optometrists and ophthalmologists are trained to provide vision exams through their programs of study, either at medical school or schools of optometry. Optometrists are trained to diagnose eye diseases, systemic diseases and vision conditions. Ophthalmologists are medical doctors who are trained to provide the full spectrum of eye care, from prescribing glasses to complex and delicate eye surgery.

Eye exams, as indicated in the chart below, differ significantly from screenings.

<i>How do vision exams compare?</i>	
<i>Vision Exams</i>	<i>Vision Screening</i>
<ul style="list-style-type: none"> ◆ Conducted by ophthalmologist or optometrist ◆ Ocular history ◆ Medical history ◆ Family ocular and medical history ◆ Unaided acuity test ◆ Best-corrected acuity test ◆ External ocular examination ◆ Internal ocular examination ◆ Pupillary responses ◆ Binocular function ◆ Accommodation and convergence ◆ Color vision ◆ Diagnosis ◆ Recommendations 	<ul style="list-style-type: none"> ◆ Conducted by wide-range of individuals from public health nurses to trained volunteers to ophthalmic technicians ◆ Tests may include anything short of a complete eye exams ◆ Components vary greatly ◆ Visual acuity ◆ Ocular alignment ◆ Refractive Errors
<p>Zaba J et al. Vision examinations for all children entering public school - the new Kentucky law. <i>Optometry</i>. 2003;74(3):149-158.</p>	<p>U.S.Preventive Task Force. <i>Guide to Clinical Preventive Services</i>, 2nd Edition. Washington, D.C., U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. 1996</p>

Charges for these exams are generally paid through private or public insurance or out-of-pocket.

Issues Raised Concerning Current Public Policies

Most children do not receive comprehensive eye exams until they have been screened and found to have a problem. Thus, the focus of discussion about whether our successes in detecting and treating childhood vision problems has been on the adequacy of vision screening. Researchers and advocates have suggested significant problems with current vision screening programs: vision screening is not a diagnostic test and therefore will not identify all children with vision problems; relatively few preschool and school-aged children are screened; there is a low follow-up rate on negative findings; treatment is delayed for those who are screened and found to have problems; and the low skill level of volunteer screeners conducting the screenings may affect findings.

Vision screening is not a diagnostic test and therefore will not identify all children with vision problems.

Problem: High false negative and false positive rates are significant drawbacks to vision screenings done by laypersons *and* trained professionals. By their definition, screening tests are only meant to identify those who are in need of further examination.

The need for early detection of vision problems is well documented.^{51,52,53} While vision problems in children are detectable with a comprehensive eye examination, only a small percentage of preschool children receive exams. Exam rates for school-aged children are not known. Screenings are seen as a cost-effective alternative that can identify children in need of further vision exams. However, the rates for screening school-aged children, even with statewide, school-based programs, are hard to determine. Effective screening tests need to have high testability (the ability to be given to a large proportion of students), high specificity (correctly identifies those who do not have the problem) and high sensitivity (detect those with problems).⁵⁴ High false-negative rates, when the child has a problem and it is not detected, and high false-positive rates, when the child does not have a problem but is sent for further tests, are drawbacks to vision screenings conducted by laypersons and trained eye professionals. Even when trained eye care professionals conduct screening tests, they miss one in three students with a vision problem.⁵⁵

Low screening rates for preschool and school-aged children and an imperfect understanding of barriers to better rates

Problem: Low screening rates for preschool and school-aged children are leaving children at risk for more serious problems. A 1983 article in the journal, *Survey of Ophthalmology*, outlined a number of obstacles to screening preschoolers. A primary barrier is that preschoolers are a “noncaptive audience”, meaning they do not gather in any particular place, as do school-aged children.⁵⁶ This non-captive status also makes it difficult to collect data on those children who may have been screened but were not part of a federal or state program that reports data to a central agency.

Although most states require or recommend that preschool and school-aged children participate in a school-based vision-screening program or document that they have had their vision tested within the past 12 months, data on participation is fragmented. States that collect data on the

number of children who are screened at school, as do Maryland, Massachusetts and Texas, for example, are unable to determine the percentage of all children screened. Reasons for this data gap include student mobility, changing school enrollment numbers, and different school district policies on the frequency and grade level at which students are tested. According to the Massachusetts School Health Services Program Data Report for the 2001-2002 school year, of the 566,804 children for whom the state health department has data, 395,330 or 70% were screened.⁵⁷ The remaining 408,000 students attend schools that were not required to report data to the health department.⁵⁸

Variation in data collection methods, categories of schools (public, private, and charter), total populations enrolled, and grade at which a child must be screened, all make data interpretations difficult. For those states that do collect data on children screened at school, there is no national database to which this information can be submitted and therefore, nationwide data on school-aged children screened for problems at school are not available. Medicaid, which used to collect data on vision assessments for the EPSDT population, stopped collecting data in 1998 due to confusion over the definition of the term “vision assessment.”⁵⁹

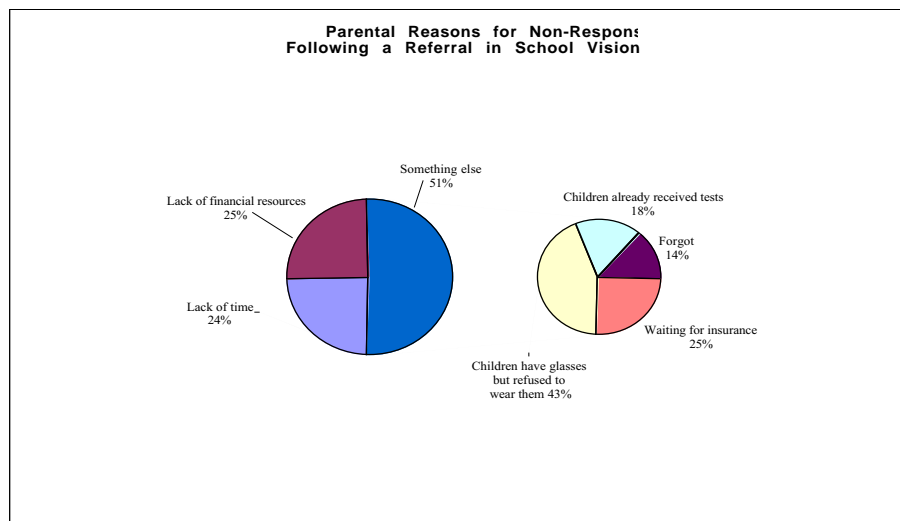
Low follow-up rate and delayed treatment

Problem: In addition to apparently low screening rates, several studies indicate that there are many barriers to obtaining recommended treatment in a timely manner for those children found to have a problem.^{60,61,62} Follow-up rates vary widely. In one study of inner-city Baltimore youth, the follow-up rate for children with suspected vision problems, was less than 33%.⁶³ Other studies in North Carolina and Minnesota found follow-up rates were as high as 80% and 90% respectively. However, for both the North Carolina and Minnesota studies, an average lag time of two years between the first failed screening and a visit to an eye professional was reported.^{64,65} In Minnesota, treatment was often delayed and only performed after a second or third abnormal school vision screening was done and referral letters were sent.⁶⁶

Many factors affect a parent’s ability to obtain the recommended treatment. In the Baltimore study, limited access to providers, gaps in and lack of insurance coverage, and lack of understanding by parents as to the importance of getting care were cited as barriers to

follow-up.⁶⁷ In Minnesota, researchers observed a pattern of significant follow-up visit completion within the first four months after sending out a referral letter, which was followed by a dramatic drop off.⁶⁸ In North Carolina, when parents were asked why they did not take their child to receive further tests, 49% indicated lack of time or lack of financial resources. The remaining 51% indicated “something else”. Of the 51% who indicated “something else”, 43% reported their children had glasses they refused to wear already, 25% said that they were waiting for insurance or that illness had been a barrier, 18% said they had taken them already during the year and would not take them again, and the remaining 14% said they forgot.⁶⁹ Table 2.

Table 2



Mark H, Mark T. Parental Reasons for Non-Response following a Referral in School Vision Screening. *Journal of School Health*. 1999; 69(1): 35-38.

Provider Training

Problem: Consistent standards for training vision screeners are not available. Training depends on the state requirements, availability of professionals and volunteers, staffing patterns of school health programs, equipment available, and the organization providing the training.

School nurses or non-professional volunteers typically conduct vision screenings at schools. In some cases, university and/or hospital programs train school nurses, as they do in Massachusetts. School nurses may in turn train school volunteers to help conduct the screenings. In Tennessee, personnel from the Tennessee Lions Eye Center for Children at Vanderbilt Children’s Hospital train the Tennessee Lions volunteers.⁷⁰ In one county in Maryland, a vision and hearing technician who is employed by the county public school system trains the school nurses. In Texas, the Department of State Health Services provides training and certifies vision and hearing screeners.⁷¹ Non-profit volunteer groups, such as the Helen Keller Foundation and Prevent Blindness America, also conduct trainings and certify vision screeners.

Several journal articles report the types of training laypersons and health professionals receive before they are allowed to conduct vision screenings. In one study, trained public health nurses screened over 1100 children each year annually for three years for visual acuity, stereoacuity, and ocular alignment. The study concluded that the trained public health nurses could deliver the vision screening service as a part of the overall screening programs.⁷² A more recent study published in *Ophthalmology* considered eleven preschool screening tests to determine sensitivity for detecting children with one or more targeted conditions. When an optometrist or pediatric ophthalmologist performed the four most effective vision-screening methods—visual acuity testing, stereoacuity testing, cover testing and noncycloplegic retinoscope—they detected two out of three children with a vision problem. They did, however, identify 90% of children with the most important conditions: amblyopia, strabismus and refractive error.⁷³ This study suggests that while the most highly skilled practitioners might miss some conditions, a high percentage of the most serious conditions are identified.

Selected State and Federal Initiatives in Response to Identified Issues

State Initiatives: With interest in academic achievement and bi-partisan support for the No Child Left Behind legislation, the question of how to best identify and ensure timely treatment for children with vision problems has come to the forefront. Several states have enacted new legislation they hope will correct problems in their efforts to identify and treat children with vision problems (Appendix 2).

Kentucky legislators, concerned that children weren't getting at least one comprehensive eye exam to test for amblyopia—the leading cause of monocular blindness late in life—chose to augment its established school-based vision screening program by making comprehensive eye exams provided by an ophthalmologist or optometrist mandatory upon a child's entry into school.⁷⁴ House Bill 706, the Early Childhood Development Initiative was passed in 1999 and revised in 2000 to require eye exams for pre-kindergartners, kindergartners and first graders.⁷⁵ In addition to the mandatory eye exams, schools continue to conduct vision screenings for those in the 3rd and 5th grade, for those referred or someone who is thought to have a problem.⁷⁶ A survey of optometrists in the program after the first year of implementation was undertaken. The survey revealed that of the 5,316 school entrance vision examinations performed, 13.92% of the children were prescribed glasses. The survey did not ask whether the children had previous eye exams or vision screenings, or had failed a prior screening and had not received treatment.⁷⁷ According to one of the optometrists involved in advocating for the legislation, comprehensive eye exams are not an either/or proposition. Eye exams and vision screenings are both essential parts of the vision health care system.⁷⁸

Massachusetts passed mandatory vision screening legislation, Senate Bill 687, in 2004 to assure all children receive vision screenings. The bill states that “upon entering kindergarten or within 30 days of the start of the school year, each child shall present to school health personnel certification of having passed a vision screening within the previous twelve months, conducted by personnel as approved by the department of health and trained in the Massachusetts approved vision screening techniques...” The bill goes on to state that if a child failed a vision screening exam,

proof of a comprehensive eye exam conducted by a licensed eye care professional with diagnosis, treatment and follow-up treatment would need to be provided (Appendix 2). The state is working to increase screener training, strengthen follow-up systems and collaborate with community providers to address the problems that have been identified in their current approaches.⁷⁹

Other states have also introduced legislation to address children's vision issues. Florida introduced Senate Bill 1844 which would add vision examination to the requirements for a child entering school; New York introduced legislation that would require that every child enrolling in kindergarten or first grade in public elementary school present a health certificate signed by an ophthalmologist or optometrist stating that a comprehensive eye exam had been performed within twelve months prior to entry into school; and Georgia introduced legislation that would provide that in the event that federal grants become available to fund the development of a state program to provide comprehensive eye exams for children entering the first grade, the State Board of Education would apply to those grants. Other states, such as Arkansas and New Hampshire have commissioned studies to determine the current status of vision care for children in their jurisdictions (Appendix 2).

Federal Initiative: In 2003-04, two federal bills were introduced, HR 2173 and HR 3602. Previously, HB 2173 and SB 1004 were introduced but were not enacted. The two new bills, if enacted, will establish a grant program under the Department of Health and Human Services to “provide comprehensive eye examinations to children and for other purposes.” (Appendix 2)

Key Findings

In considering alternative approaches to addressing children's vision problems, several factors should be considered:

- ❖ Data on preschool and school-aged vision screenings are scarce. Current national data are not available. State-based data collection methods vary widely and conclusions about the efficacy and efficiency of screening protocols are difficult to ascertain. Data on the rates of screenings and eye exams from federal programs, eye care professional offices, primary care provider offices and volunteer groups are not being collected and/or reported to any central database. The last time national data on vision screening was collected through the National Health Interview Survey was 1971-1972.
- ❖ In most states and local school districts, follow-up mechanisms are not adequate to assure that children who are screened and identified with problems receive treatment in a timely manner. Reasons cited for failure to follow-up include children's refusal to wear corrective lenses, lack of financial resources, insurance issues and parental lack of knowledge of the problem and/or importance of timely treatment.
- ❖ Health care providers who have contact with preschool and school-aged children are missing opportunities to identify vision problems in children during routine visits. Although the American Academy of Pediatrics has guidelines recommending vision screenings, some primary care providers do not consistently administer them.
- ❖ Vision screening instruments are not diagnostic tools and therefore some children with vision problems, even if they are part of a screening program, will be missed. Some vision screening instruments are not sensitive enough to identify children with certain types of vision problems.
- ❖ Training of screeners is inconsistent and may not be adequate given the difficulty of identifying some vision problems. While some training programs run by medical institutions and state health agencies are standardized, field implementation may not be optimal.
- ❖ Parents or other caregivers may not be sufficiently aware of the importance of early detection for some vision problems and the need for prompt treatment to reduce irreversible damage.
- ❖ Data on the impact of vision problems on academic achievement is not well disseminated. With the interest in academic achievement at the forefront of state and federal policy, the investment in research to determine the impact of children's vision on academic achievement seems apparent.

Opportunities for Action

- ❖ **Research:** A recurrent theme that emerges from this review of vision screening and children is that additional research is needed to document the prevalence of vision problems and evaluate the success and limitations of screening programs and eye examination strategies. In March 2004, based on findings from randomized controlled clinical studies, the U.S. Preventive Services Task Force recommended that all children younger than five years of age be screened for visual impairments. What the recommendation did not address are the screening protocols to be used. Other research might examine the rate at which preschoolers are screened through primary care providers' offices, preschool programs, and other community-based programs. Similar research might examine the number of children who receive school-based screenings. In addition to screening rates, researcher would want to explore screening techniques, screener skill-levels, missed problems, and screening results follow-up.
- ❖ **Standards Development and Data Collection:** State and local government agencies could consider collaborating on the development of common screening standards as well as common recommendations for eye exams. The development of common standards would lay a foundation for a meaningful compilation of statewide and national data on the extent of

children's health problems and related vision services. At the federal level, the National Health Interview Survey, conducted periodically by the National Center for Health Statistics at DHHS, offers an opportunity to collect prevalence data. Questions that were previously posed regarding vision problems in the early 1970s could be reinstated. The federal Medicaid office might undertake to work with state Medicaid offices to standardize definitions in response to their concerns about variability in vision assessment definitions used in state reporting. Then federal Medicaid offices could collect data on vision services provided to its beneficiaries under the EPSDT program. Finally, the National Eye Institute at the National Institutes of Health could contribute to the effort by disseminating information on federal funding for research related to children's vision problems. Estimates of NEI's FY04 funding for research of amblyopia and strabismus is \$17.1 million and \$7.3 million for refractive errors.

- ❖ **Parent and Provider Vision Education:** Governmental agencies are not the only entities that have an opportunity to play an effective role. Parents and primary care providers are critical to improving outcomes for children as well. Eye care professional groups can initiate efforts to educate parents and primary care providers about the efficacy of early detection of vision problems. Eye care professionals and public health officials may wish to undertake outreach to parents, teachers and health care providers to help them learn the warning signs of vision problems in children.
- ❖ **Vision Screener Qualifications and Training:** As indicated earlier, the qualifications of vision screeners and training provided to them vary markedly within states and among states. Local and state governments taking the following actions might strengthen the effectiveness of school-based screening programs. (1) Minimum qualifications for screeners might be established statewide. (2) Appropriate local or state agencies (public health departments, school districts, or state education agencies) may want to consider establishing more consistent standards for training vision screeners and provide support for continuing education in this arena. For example, school districts and local governments might

develop partnerships with training institutions such as universities and hospitals to provide consistent, high quality training and act as referral sources when children with vision problems are identified and need further tests and treatment.

- ❖ **Additional Services for Children:** States may want to consider augmenting their existing vision-screening programs with mandatory comprehensive eye exams for preschoolers or kindergartners as Kentucky chose to do, to help identify youngsters who have amblyopia, the leading cause of blindness in adults. Access issues, such as transportation, provider availability, and insurance coverage in addition to administrative infrastructure issues will need to be addressed. It is important to note that the Kentucky strategy has the potential for requiring out-of-pocket eye exam expenses for parents at the beginning of the school year. The Kentucky legislature set aside funds to assist families of children who are not insured by private insurance, Medicaid or the S-CHIP program and who do not have the resources to pay for the cost of the eye exam. Only 75 exams were paid for in 2000 and only 66 in 2001.⁸⁰

Conclusion

While we know that vision problems in children are likely barriers to academic achievement and important precursors of adult vision impairment, we have insufficient research to answer many important questions that are critical to establishing good public policy. We have listed above some opportunities to move this field forward and take steps that will improve the protection of childhood vision. The challenge will be, in an era of budget constraints at the state and federal level, to find the public will to press ahead. Given the fiscal constraints, advocates for protecting children's vision must be prepared to make a sustained effort. Perhaps the most promising strategies will build upon the shared interests of private sector optometrists and ophthalmologists as well as the public sector agencies of health and education to support an expanded research agenda, refine the school-based vision screening programs, and strive to develop more effective approaches to identifying and treating vision problems among pre-school children.

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Appendix 1 - Glossary of Terms^{**}

Ophthalmology - a branch of medicine specializing in the anatomy, function and diseases of the eye.

Ophthalmologist - a medical doctor who specializes in eye and vision care. Ophthalmologists are specially trained to provide the full spectrum of eye care, from prescribing glasses and contact lenses to complex and delicate eye surgery. In addition to medical school and a one-year internship, all ophthalmologists spend at least three years of residency in a hospital. Some ophthalmologists may sub-specialize in a specific area of eye care.

Optometry - a health care field that specializes in examining, diagnosing, treating and managing some diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions.

Optometrist - a health care professional that examines the internal and external structure of the eyes to diagnose eye diseases, systemic diseases, and vision conditions. Optometrists complete pre-professional undergraduate optometrists complete a residency.

Pediatric Ophthalmology - branch of ophthalmology that involves the medical and surgical management of strabismus, amblyopia, genetic and developmental abnormalities and a wide range of inflammatory, traumatic and neoplastic conditions occurring in the first two decades of life. This subspecialty also deals with the ocular manifestations of certain systemic disorders.

Refractive Error - a category of vision problems that refers to a loss of visual acuity. The loss of acuity is due to improper light refraction as a result of the shape of the eye. The result is a blurred image. These types of errors are eye disorders.

Vision problems or abnormalities - general term used to describe a broad range of vision related abnormalities that may include correctable conditions such as near and farsightedness, disorders, diseases, impairment, and blindness.

Vision impairment - the measured visual acuity of 20/70 or worse, with correction, in the better eye. Vision impairment means that a person's eyesight cannot be corrected to a "normal" level. It is a loss of vision that makes it hard or impossible to do daily tasks without specialized adaptations. Vision impairment may be caused by a loss of visual acuity, where the eye does not see objects as clearly as usual. It may also be caused by a loss of visual field, where the eye cannot see as wide an area as usual without moving the eyes or turning the head.

Visual acuity - clarity of sight, generally referring to the ability to see things clearly from a specific distance.

^{**} The majority of definitions are from the American Academy of Ophthalmology, American Optometrists Association, National Library of Medicine/Medline Plus, and Centers for Disease Control and Prevention.

Appendix 2 - Legislative Status

ENACTED LEGISLATION – 2004

MASSACHUSETTS SB687. Children’s Vision Screening. “The first paragraph of section 57 of chapter 71 of the General Laws, as appearing in the 2002 Official Edition, is hereby amended by adding the following words:— Provided that, upon entering kindergarten or within 30 days of the start of the school year, each child shall present to school health personnel certification of having passed a vision screening within the previous twelve months, conducted by personnel as approved by the department of public health and trained in the Massachusetts approved vision screening techniques to be developed by the department of public health in consultation with the department of education. In the event of failure to pass the approved Massachusetts vision screening and for children diagnosed with neurodevelopmental delay, proof of a comprehensive eye examination performed by a licensed optometrist or ophthalmologist chosen by the child’s parents or guardian indicating any pertinent diagnosis, treatment, prognosis, recommendation and evidence of follow-up treatment if necessary must be provided.”

WASHINGTON HR4694. Resolution regarding amblyopia. This House Resolution recognizes that amblyopia is a significant eye disease and that reducing visual impairment in children and increasing the proportion of preschool children who receive vision screening are specific objectives of the current administration’s national public health initiatives, Healthy People 2010, the House of Representatives commends parents in Washington state who have their children screened or examined for amblyopia and vision abnormalities before entering school; and further resolved that copies of this resolution be immediately transmitted to the Washington Academy of Pediatrics, the Washington Academy of Family Practice, the Optometric Physicians of Washington, The Washington Academy of Eye Physicians and Surgeons, and several other eye care related associations.

INTRODUCED LEGISLATION – 2004

CALIFORNIA SB1692. Vision Screening. Current law requires, upon first enrollment in school and every 3rd year thereafter until 8th grade, that a pupil’s vision be appraised by the school nurse or other authorized person. This bill would require that if a vision appraisal is conducted, each pupil would receive a notice and questionnaire regarding pupil vision to be taken home to his or her parent or guardian. The notice would contain the following language: “É>Your child’s ability to see clearly and to accurately interpret visual information is crucial to his or her learning and success in school. To aid in identifying additional vision-related difficulties that may not have been discovered through existing visual health testing procedures at your child’s school, but may merit treatment by a qualified eye care professional, the Legislature has passed a law requiring that a notice and questionnaire be sent home with your child if he or she has received vision acuity or color visual screening at their school. Enclosed with this notice is a questionnaire that you are encouraged to complete. If this questionnaire raises questions or concerns for you regarding the health or learning abilities of your child, you may wish to have your child seen by a health care provider.”

FLORIDA HB907/SB2330. Infants’ and Children’s Eye Exams. This bill would require that every baby born in a hospital in the state to receive, prior to being discharged from the hospital, an eye examination using an ophthalmoscope and dilation of the pupils for detection of pediatric congenital and ocular abnormalities and

developmental abnormalities. The bill would also require that child health supervision services include, in addition to physical examinations and assessments, an eye examination at birth, at 6 to 8 weeks of age, and at 6 to 9 months of age, using an ophthalmoscope and dilation of the pupils for detection of pediatric congenital and ocular abnormalities and developmental abnormalities. This bill would add HMOs to the insurance policies that must cover these examinations.

FLORIDA SB1844. School Entry Vision Examination. This bill would add vision examinations to the requirements for a child entering school. The bill would direct each district school board and the governing authority of each private school to require each child entering kindergarten or any other initial entrance into the public or private school to present a certification of a school-entry comprehensive vision examination by an optometrist or an ophthalmologist, performed within 1 year prior to enrollment in school.

GEORGIA HB1361. Children’s Vision Exam. This bill is titled “Georgia’s Children’s Vision Improvement and Learning Readiness Act of 2004.” This bill would provide that in the event that federal grants become available to fund the development of a state program to provide comprehensive eye examinations for children entering first grade, the State Board of Education shall apply for such grants and shall be authorized and directed to promulgate rules and regulations requiring comprehensive eye examinations for children entering the first grade in the public schools of this state. The bill would further require the issuance of a certificate to the parent or guardian of a child indicating that a comprehensive eye examination has been conducted. The certificate would be turned in to the school officials at the time of enrollment. The term ‘comprehensive eye examination’ includes an assessment of a patient’s history, a general medical observation, an external and ophthalmoscopic examination, and an assessment of gross visual field, visual acuity, ocular alignment and motility, refraction, and binocular vision and accommodation conducted by an optometrist or an ophthalmologist. To the extent federal funds are available, criteria would be developed for determining eligibility for participation in the program, a list of providers, a system for provider reimbursement, and a method for evaluation and reporting of the operations and activities carried out under the program. The State Board of Education would develop and disseminate to parents, teachers, and the public educational materials regarding the need for and benefits of comprehensive eye examinations for children.

NEBRASKA LB174. (Carried over from 2003) Children’s Vision Exam. This bill, carried over from last year and recently amended, would require that for the school year 2005-2006 and each year thereafter, all children entering the beginner grade and students transferring into the state must show evidence having had a visual evaluation by a physician or optometrist within six months prior to the entering school. Visual evaluation is defined in the bill to include testing for amblyopia, strabismus, and internal and external eye health, with testing sufficient to determine visual acuity. As with required school physical examinations in Nebraska, parents retain the right to refuse to comply. Such objection must be made in writing.

NEW YORK HB7012/SB5374. (Carried over from 2003) Children’s Vision Exam. This bill would require that every child enrolling in kindergarten or first grade in a public elementary school present a health certificate signed by an ophthalmologist or optometrist stating that a comprehensive eye examination has been performed within twelve months prior to entry into school. “Comprehensive Eye examination” means a complete of a patient’s

and thorough examination of the eye and human vision system that includes, but is not limited to, an evaluation, determination, or diagnosis of (a) visual acuity at various distances; (b) alignment and ocular motility, including eye tracking; (c) binocular fusion abnormalities; (d) actual refractive error, including verification by subjective means; (e) any color vision abnormality or deficiency; (f) intraocular pressure as may be medically appropriate; and (g) ocular health, including internal and external assessment. The department of education, in cooperation with the department of health, will promulgate rules and regulations to provide procedures for the eye examinations. The departments of education and health will compile and maintain a list of health care providers to which children who need eye examinations or children who have been found to need further examination for vision correction may be referred for treatment on a free or reduced cost basis.

RHODE ISLAND HB8285. This bill would require a vision examination by an optometrist or an ophthalmologist for every student entering a publicly funded kindergarten program. Regulations would be developed to ensure that the vision examination meets criteria prescribed by the department of health and that it has been performed. The vision examination report would be submitted to the local school department no later than January 1 of the first year that the child is enrolled in public schools. The program would be known as the statewide children's vision examination program and would be regulated by the department of elementary and secondary education.

TENNESSEE HB2656/SB3081. This bill would amend previous children's preschool vision requirements by providing that a health care professional is authorized to indicate the need for a dental or vision screening on any report or form used in reporting immunization status for a child. The public schools receiving these forms or reports must inform parents of the need to seek appropriate screenings for their children. This bill defines vision screening as a screening test recommended by a nationally recognized professional medical organization such as the American Academy of Pediatrics, American Academy of Ophthalmology or American Optometric Association.

ENACTED - 2003

ARKANSAS HCR1009. Eye Care Study. This Resolution requires the House and Senate Interim Committees on Public Health, Welfare, and Labor to conduct a study of eye health and vision care in Arkansas with special emphasis on the needs of school-age children.

ARKANSAS HB1553. Commission for Adequate Eye Health and Vision Care. This Act establishes an Arkansas Commission for Adequate Eye Health and Vision Care Needs for School Children. The duties of the Commission are to study the eye and vision needs of the school age children; study and evaluate vision screening programs in the schools, and their effectiveness; study and evaluate whether children are receiving adequate eye and vision care, and correction of vision problems; study the effects of inadequate vision on the performance of children in the classroom; and develop a strategic statewide plan to ensure adequate eye and vision care of school age children. The Commission will report its findings and strategic plan to the Governor, the Legislative Council, and the House and Senate Interim Committees by November 1, 2004.

CALIFORNIA ACR106: Study. The California legislature adopted Assembly Concurrent Resolution No. 106 recognizing the importance of good visual health for California's children and encouraging the Senate Office of Research to commission a study of the eye and vision needs of children in the State of California, including the need for

regular comprehensive eye examinations by trained professionals, the need for an increase in the type and quantity of eye appliances available to children, and the need for access to affordable, quality eye and vision care. The resolution also recognizes that school vision screenings are not effective, fail to identify critical vision problems, and often do not lead to treatment.

ILLINOIS SB805. Vision Exams Encouraged. This Act amends the current law regarding health examinations that are required prior to a child entering school. The current law allows schools to require dental and vision examinations when deemed necessary by the school. This Act encourages parents to have their children undergo vision exams at the same points in time as are required for health examinations. This Act provides that the Department of Public Health shall require that individuals conducting vision screening tests give a child's parent or guardian written notification, before the vision screening is conducted, that states, "Vision screening is not a substitute for a complete eye and vision evaluation by an eye doctor. Your child is not required to undergo this vision screening if an optometrist or ophthalmologist has completed and signed a report form indicating that an examination has been administered within the previous 12 months."

OHIO HB95. Children's Eye Exam For Students With Disabilities. This Act was part of the state budget bill. It requires that in the 2004-2005 and 2005-2006 school years, within three months after a student identified with disabilities begins receiving services for the first time under an individualized education program, the school district in which that student is enrolled shall require the student to undergo a comprehensive eye examination performed either by an optometrist or by a physician authorized to practice medicine and surgery or osteopathic medicine and surgery who is comprehensively trained and educated in the treatment of the human eye, eye disease, or comprehensive vision services, unless the student underwent such an examination within the nine-month period immediately prior to being identified with disabilities.

INTRODUCED LEGISLATION – 2003

CALIFORNIA SB606. Required Vision Appraisal Amendment. Current law requires, upon first enrollment of a child in elementary school, and at least every 3rd year thereafter until the 8th grade, the child's vision to be appraised by the school nurse or other authorized person. This bill would require that when a vision appraisal is conducted, each child is to receive a notice and questionnaire regarding the child's vision, to be delivered to the child's parent or guardian. The bill sets out the requirements for the notice and questionnaire. The questionnaire contains numerous statements about the child that could indicate a vision problem. If the parent answers 'yes' to two or more of the statements, the parent is encouraged to have the child assessed by a qualified health care professional.

FLORIDA HB47. School Entry Vision Examinations. This prefiled bill would require each district school board and the governing authority of each private school to require that each child who enters a public or private school in the state to present a certification of a school entry comprehensive vision examination by an optometrist or an ophthalmologist performed within 1 year prior to enrollment in school.

GEORGIA SB242. Children's Vision Exams. This bill would be cited as Georgia's Children's Vision Improvement and Learning Readiness Act of 2003. It would provide comprehensive eye examinations for children entering first grade in the public schools. The term "comprehensive eye examination" includes an assessment

history, a general medical observation, an external and ophthalmoscopic examination, and an assessment of gross visual field, visual acuity, ocular alignment and motility, refraction, and binocular vision and accommodation conducted by an optometrist or an ophthalmologist. The bill would only become effective if federal grants become available to fund the development of a state program to provide comprehensive eye examinations.

IOWA HB307. Retinoblastoma Screening. This bill directs the Iowa department of public health to adopt rules, with assistance provided by the board of medical examiners, to require that pediatricians provide screening for retinoblastoma during well-baby visits at times specified by the rule. It also directs the birth defects institute to adopt rules that require that the Iowa neonatal screening program include screening for retinoblastoma.

MASSACHUSETTS HB1068/SB228/SB687/SB909. Vision Screening. These three similar bills would require vision screening coverage by third party payors. Any policy, contract, agreement, plan, or certificate of insurance issued, delivered, or renewed within the Commonwealth shall cover a vision screening for children by four years of age. Such vision screening shall include but not be limited to visual acuity tested in each eye individually and alignment testing. The vision screening shall be performed by a licensed physician, licensed optometrist, licensed nurse, licensed physician assistant, certified orthoptist or certified ophthalmic technician. In the event of failure to pass the vision screening, a comprehensive eye examination by a licensed ophthalmologist or licensed optometrist must be completed. Such ophthalmologist or optometrist who conducts an eye examination in response to a child having failed a vision screening shall forward a written report of the results of the examination, including a diagnosis, treatment and prognosis, and evidence of ongoing follow-up treatment if necessary, to the school health personnel, primary care provider and parent or guardian of such child.

NEBRASKA LB174. Children's Vision Exam. This bill would amend the examination requirements for children entering school to require that for school year 2004-2005 and each school year thereafter, an eye examination by a physician or optometrist within six months prior to the entrance of a child into the beginner grade, or, in the case of a transfer from out of state, to any other grade of the local school, which consists of testing for amblyopia, strabismus, and refractive errors, assessment of ocular alignment, binocularity, and internal and external eye health, with testing sufficient to determine any needed refractive correction.

NEW HAMPSHIRE HB376. Study Committee. This bill would establish a Committee to study the feasibility of providing eye examinations to children prior to enrollment in a public elementary school, public preschool program, or Head Start program. It would determine the best method to pay for such eye examinations, including ways to assist families who have no insurance coverage or otherwise are unable to afford the eye examination, and any sources of funding from federal or other non-state sources; determine alternative methods of assuring children enter school with adequate eyesight for learning; and seek input from various professional and special interest groups including ophthalmologists, optometrists, pediatric providers, school nurses, and other health associations.

NEW YORK HB5666: Vision Care Program. This bill would establish the save our sight fund with \$1 voluntary contributions made by persons obtaining or renewing their motor vehicle registration or driver's license. The monies raised in the Save Our Sight Fund would go to support the Vision Care Program. The Vision Care Program would implement a voluntary children's vision screening and establish a training and certification program for

volunteers, child day-care providers, nurses, teachers, medical doctors practicing in primary care settings and others serving children to promote education regarding proper vision care. The program would be established to promote public awareness regarding the value of early detection of vision problems and appropriate treatments. The program would develop and implement a registry and targeted voluntary case management for problems, illnesses, and disease of the eye including, but not limited to, amblyopia to determine whether children with such illnesses or diseases of the eye are receiving professional eye care and to provide their parents with information and support regarding their child's vision care. In addition the program would establish a matching grant program for the purchase and distribution of protective eyewear to children and provide vision health, education and safety programs including the distribution of informational materials.

NEW YORK HB7012. Children's Vision Exam. This bill would require that every child enrolling in kindergarten or first grade in a public elementary school to present a health certificate signed by an ophthalmologist or optometrist stating that a comprehensive eye examination has been performed within twelve months prior to entry into school. "Comprehensive Eye examination" means a complete and thorough examination of the eye and human vision system that includes, but is not limited to, an evaluation, determination, or diagnosis of (a) visual acuity at various distances; (b) alignment and ocular motility, including eye tracking; (c) binocular fusion abnormalities; (d) actual refractive error, including verification by subjective means; (e) any color vision abnormality or deficiency; (f) intraocular pressure as may be medically appropriate; and (g) ocular health, including internal and external assessment. The department of education, in cooperation with the department of health, will promulgate rules and regulations to provide procedures for the eye examinations.

WEST VIRGINIA SB188. Children's Eye Exam. This bill would provide that beginning in the 2003 school year, the parent of any child entering school for the first time in the state must present a document prepared by a licensed optometrist or ophthalmologist that (1) certifies that the child has undergone an age appropriate comprehensive vision examination; (2) indicates any diagnosis made; (3) indicates any treatments administered; and (4) indicates any recommendations for further treatment. The bill also provides a mechanism for children of limited means to obtain the appropriate comprehensive vision examination.

FEDERAL PROPOSALS 2003

HB5648/SB1004. Healthy Children Learn Act. These two federal bills propose to provide grants/assistance to those states that develop a program to provide that children at highest risk for asthma, vision, hearing and other health problems are identified and treated.

ENACTED/ADOPTED 2002

DELAWARE HCR39. Children's Eye Exam Encouraged. This resolution provides that parents of children entering school in Delaware are encouraged to have their children examined by an eyecare professional in order to help prepare them for success in the classroom.

GEORGIA SR677. Children's Eye Exam Study. This resolution creates the Senate Study Committee on Rules and Regulations for Nutritional Screening and Eye, Ear, and Dental Examinations of

Students Entering the State Funded Pre-Kindergarten Programs and Five Year Olds Entering Public Schools. The committee will specifically address the propriety, impact, costs, and benefits of requiring eye examinations to be performed by ophthalmologists or optometrists and the local boards of health to provide for ear and dental examinations and nutritional screenings. The committee will recommend any actions or legislation it deems necessary or appropriate.

KENTUCKY SB207. Children's Eye Exam Amendment. This Act amends the children's eye exam law to provide that the eye examination is required only for the first year that a three, four, five, or six year old child is enrolled in a public school, public preschool, or Head Start program.

CARRIED OVER FROM 2001:

MASSACHUSETTS The children's vision exam bill introduced in the 2001 session has carried over to the 2002 session and is slowly making its way through the various legislative committees. The bill would provide that each child would be required to present to school health personnel certification of an eye examination completed by an ophthalmologist or an optometrist chosen by the child's parents or guardian indicating any pertinent diagnosis, treatment, prognoses, recommendation and follow-up. (This bill was held in committee - as were all bills perceived as having a possible impact on the state budget. It will probably be reintroduced next year.)

OHIO The Task Force for Better Vision established last session in Ohio to examine the current status of vision services available to children preparing to enter the school systems completed its study and report to the governor and legislature. The Task Force believes it is in the best interest of children entering school to receive a comprehensive eye examination. No decisions have been made as to whether or not to proceed with legislation.

INTRODUCED IN 2002:

FLORIDA A bill to require that every baby born in a hospital in the state must receive, prior to being discharged from the hospital, an eye examination using an ophthalmoscope and dilation of the pupils for detection of pediatric congenital and ocular abnormalities. It would also require a similar examination at 6-8 weeks of age, and at 6-9 months of age. (Did not pass.)

MISSISSIPPI This House introduced bill would require the Department of Education and the Department of Health to develop or select an appropriate screening instrument to be used in the student vision screening program. (Did not pass, although Education Committee hearings this summer may include the issue of children's vision exams prior to school.)

NEW JERSEY This bill would develop and require a universal statewide mandatory newborn eye pathology screening and establish an 11-member Newborn Eye Pathology Advisory Council to advise on implementation of the protocol.

PENNSYLVANIA HB2561. This bill would provide that all children of school age in the state, (i) upon original entry into the school, (ii) while in the third grade, and (iii) while in the seventh grade, shall be given a comprehensive eye examination by an optometrist or ophthalmologist: Provided, however, that this requirement would not apply to those school districts or joint school boards which have instituted a program of comprehensive eye examinations by an optometrist or ophthalmologist for children of school age that has been approved by the Secretary of Health. (This

bill is still alive in committee, but is not expected to pass this year. It will probably be introduced again next year.)

TENNESSEE A bill to require a vision examination by an optometrist or ophthalmologist prior to the child enrolling in a public school, public preschool, or Head Start program. Criteria for the examination would be established by the state board of education. (Did not pass.)

VIRGINIA This bill would amend the preschool physical examinations requirement to include a report from a qualified licensed optometrist or ophthalmologist of a comprehensive eye examination of a scope prescribed by the State Health Commissioner performed within the twelve months prior to the date such pupil first enters public kindergarten or elementary school. This bill was referred to the Joint Commission on Health Care for a study and recommendations. (The study has been completed and has been published for comments. A final recommendation will then be made.)

WEST VIRGINIA SCR18. This Concurrent Senate Resolution would request that the Joint Committee on Government and Finance make a study of requiring, as a condition of admittance, that every child entering elementary school receive a comprehensive vision examination from a licensed optometrist or ophthalmologist; to make a study of requiring that any impairments or problems found be corrected or handled appropriately; and to make a study of methods for children of families of limited means to receive the examination to correct or handle appropriately impairments or problems found. If the study determines that a program is advisable, the study would also recommend what elements of the program should be, including, but not limited to, the appropriate charge to allow optometrists or ophthalmologists to charge patients receiving an examination for the purpose of meeting the requirement; eligibility requirements for obtaining assistance in getting the examination as well as any treatment, if necessary; and the extent to which vision correction or treatment should be provided. The Committee would report to the 2003 legislature on its findings, conclusions and recommendations, together with drafts of any legislation necessary to implement its recommendations. (Resolution adopted - hearings are commencing this summer.)

ENACTED IN 2001:

KANSAS Senate substitute for HB 2336. Children's vision exam. This bill amends K.S.A. 2000 Supp. 72-5205, to include a section on children's vision and provides that: (a)(1) Each school board shall provide basic vision screening without charge to every pupil enrolled in each school under the governance of such school board not less than once every two (2) years. All such tests shall be performed by a teacher or some other person designated by the school board. The results of the test, and, if necessary, the desirability of examination by a qualified physician, ophthalmologist or optometrist shall be reported to the parents or guardians of such pupils. Information relating to the desirability of examination by a qualified physician, ophthalmologist or optometrist shall not show preference in favor of any such professional person. (b) Each pupil needing assistance in achieving mastery of basic reading, writing and mathematics skills shall be encouraged to obtain an eye examination by an optometrist or ophthalmologist to determine if the pupil suffers from conditions which impair the ability to read. Expense for such examination, if not reimbursed through Medicaid, Healthwave, private insurance or other governmental or private program, shall be the responsibility of the pupil's parent or guardian.

OHIO SCR11. Children's Vision Exam. This Senate resolution creates a Task Force for Better Vision that will examine the current status of vision services available to children preparing to enter public and private school systems; examine vision services currently available to children attending school in Ohio; review all existing statutes and programs in Ohio pertaining to vision services for children; review vision programs and services for children in other states; and request testimony from health care professionals, educators, and other individuals who provide vision screening and other vision services to school-age children. The Task Force must complete its work and submit a report to the Governor and the Legislature no later than December 1, 2001. The report must include determinations and recommendations regarding how the state could assist in providing the most appropriate vision services for children.

SOUTH CAROLINA HB3379. Newborn Eye Screening. This joint resolution establishes the Newborn Eye Screening Task Force to study the screening of ocular diseases and abnormalities in newborn children. The study should include review of currently required ocular screenings of newborns, if any, identification of the most prevalent ocular diseases and abnormalities in newborns, and the effectiveness, costs, and funding of screening for these diseases and abnormalities. The task force will include one optometrist with a specialty or experience in providing optometric care to young children. The task force shall submit its report and recommendations to the governor and general assembly before March 1, 2002.

TENNESSEE SB304/HB704. Children's Vision Exam. This act amends children's health screening requirements to require that upon registration or as early as is otherwise possible and appropriate, public schools, nursery schools, kindergartens, preschools or child care facilities are encouraged to make reasonable efforts to apprise parents of the health benefits of obtaining appropriate eye and dental care for children.

WISCONSIN SB55. Children's Vision Exam. Section 2679m. 118.135 of the statutes is created to read:

"Eye examinations and evaluations. (1) Beginning in the 2002-03 school year, each school board and each charter school shall request each pupil entering kindergarten to provide evidence that the pupil has had his or her eyes examined by an optometrist licensed under ch. 449 or evaluated by a physician licensed under ch. 448.

(2) A pupil who complies with a request under sub. (1) shall provide evidence of an eye examination or evaluation by December 31 following the pupil's enrollment in kindergarten. The school board or charter school shall provide pupils with the form distributed by the department of regulation and licensing under s. 440.03(16) for that purpose.

(3) To the extent feasible, the medical examining board and the optometry examining board shall encourage physicians and optometrists, for the purpose of this section, to conduct free eye examinations or evaluations of pupils who are in financial need and do not have insurance coverage for eye examinations or evaluations."

ENACTED 2000:

KENTUCKY Administrative regulations shall be promulgated for the following: (g) A vision examination by an optometrist or ophthalmologist that shall be required by the Kentucky Board of Education. The administrative regulations shall require evidence that a vision examination that meets the criteria prescribed by the Kentucky Board of Education has been performed. This evidence shall be submitted to the school no later than January 1 of the first

year that the child is enrolled in public school, public preschool, or Head Start program;....

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Received from, Judith E. Duchateau, JD, Associate Council, American Optometric Association. St. Louis, MO. August 2004.

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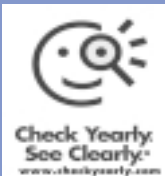
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