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August 5, 2021

Steven T. James
House Clerk
State House Room 145
Boston, MA 02133

Michael D. Hurley
Senate Clerk
State House Room 335
Boston, MA 02133

Dear Mr. Clerk,

Pursuant to Section 135 of Chapter 47 of the Acts of 2017, please find enclosed a report from the Department of Public Health entitled "Report of the Childhood Vision and Eye Health Commission."

Sincerely,

Lindsey Tucker
Associate Commissioner
Department of Public Health

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MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

CHARLES D. BAKER
GOVERNOR

KARYN POLITO
LT. GOVERNOR

MARYLOU SUDDERS
SECRETARY

MARGRET R. COOKE
ACTING COMMISSIONER

Report of the Childhood Vision and Eye Health Commission

August 2021

Massachusetts Department of Public Health

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Commission Members

Name	Affiliation	Title
Craig S. Andrade, LATC, RN, DrPH	Department of Public Health	Former Director, Bureau of Family Health and Nutrition; Commission Chair
Sarah Andrew, MD	Mass. Chapter of the American Academy of Pediatrics	Pediatrician, Private Practice
Christine P. Barber, MPA	Designee, House Chair Public Health Committee	State Representative
Catharine Johnson, OD	Mass. Society of Optometrists	Pediatric Optometrist, Specialized Pediatric Eye Care
Kathy Majzoub, RN, MBA	Children's Vision Mass. Coalition	Director, Northeast Region at Prevent Blindness America
Bruce Moore, OD	Children's Vision Mass. Coalition	Professor Emeritus, New England College of Optometry
Michael O. Moore	Designee, Senate Chair Public Health Committee	State Senator
Carol Nolan, MS	Department of Early Education and Care	Associate Commissioner for Strategic Partnerships, Head Start State Collaboration Director
Jean E. Ramsey, MD, MPH	Mass. Society of Eye Physicians and Surgeons	Associate Professor, Boston University School of Medicine
Emily M. Taylor, MS	Department of Elementary and Secondary Education	Early Learning Specialist
Shanyn A. Toulouse, MEd, BSN, RN, NCSN	Mass. School Nurse Organization	Northeast Regional School Nurse Consultant

Childhood Vision and Eye Health Commission - Report

Summary/Overview

The Commission, enacted as Section 135 of Chapter 47 of the Acts of 2017, was created to study and report on childhood vision and eye health in the Commonwealth.[1]

The *Childhood Vision and Eye Health Commission* met over 16 months in 2018 and 2019 to track the progress made on children's eye health since the passage of the 2004 *Act Relative to Eye Examinations for Children*. The Commission found that children continue to suffer from preventable vision disorders that negatively impact a child's development and learning despite the 2004 legislation. Many children begin their first years of school without the required vision screening or comprehensive eye exam. Untreated vision disorders have lasting impacts on children's lives, affecting their ability to learn and be healthy, and often causing irreversible damage. These effects are felt most acutely by low-income children of color and children with disabilities. The Commission developed pragmatic and actionable policy solutions that build on the 2004 law and focus on comprehensive eye health services for school-aged children and children ages 0 - 5 years.

A summary of the recommendations of the Commission include:

1. **Establish a universal, statewide data system for vision screening, comprehensive eye exam, diagnoses, and follow up care of children**.

2. **Coordinate vision health services for children, beginning at birth.**

3. **Examine requiring comprehensive eye exams at entry to programs that serve children with disabilities and as a required component of the state's special education evaluation process.**

4. **Review ways insurers, including MassHealth, can address inequities in access to pediatric ophthalmologists and optometrists**.

5. **Address inequities in coverage for eyeglasses by encouraging payers to ensure eyeglasses for children are covered and accessible without burdensome co-pays, deductibles, or delays.**

6. **Explore the feasibility of insurers instituting incentives for pediatric practices to provide evidence-based vision screening, assessment, and follow up to all children on a schedule as delineated in professional guidelines and Medicaid benefits.**

This final report was delayed because of staff being redirected to the COVID response efforts.

The Need

Vision plays a major role in a child's intellectual, social, emotional, and physical development. In most cases, early detection and treatment of abnormal vision development will support healthy growth and prevent permanent vision impairment. Massachusetts can improve, particularly with children who live in low-income communities, how it detects, diagnosis and treats vision problems. Vision problems in children in Massachusetts, especially among children who live in low-income communities, are not being detected, diagnosed, and treated at satisfactory levels. These untreated deficits impact our children's ability to learn, play, and grow. In some cases, failure to detect vision problems results in permanent, preventable vision loss. Currently, Massachusetts does not have a mechanism to capture this data;

however, as a reference point, the World Health Organization estimates that approximately 80% of vision impairment is preventable.[2]

Recognizing the importance of eye health in children, the Centers for Disease Control and Prevention (CDC) created two vision objectives for children as part of Healthy People 2020. They are: 1) to increase the proportion of preschool children aged 5 years and under who receive vision screening, and 2) reduce blindness and visual impairment in children and adolescents aged 17 years and under.

Vision Disorders are Prevalent in Children

The two major categories of childhood vision disorders are those resulting from abnormal vision development during infancy and young childhood and disorders developing in mid-childhood through adolescence. While public health data on vision disorders is limited, a study in Baltimore found that approximately 13% - 15% of preschool-aged children have a vision disorder requiring correction.[3] Rates are higher in low-income communities, with some studies finding that more than 20% of children enrolled in Head Start have a vision deficit needing treatment.[4] Greater than 25% of elementary school children need eyeglasses to see across the classroom or to read a textbook.[5] Most of these vision problems respond to treatment.

The most common childhood eye problems are amblyopia (also known as lazy eye), and conditions that lead to amblyopia: strabismus (in which one eye is misaligned), and refractive error (near-sightedness, far-sightedness and astigmatism).[6] Amblyopia is a serious condition caused by abnormal vision development during infancy and early childhood. Amblyopia and conditions associated with it are the most common cause of vision problems among young children. Amblyopia affects approximately 3% of all children in the US. It can result in lifelong vision impairment and blindness if not treated early.[7, 8, 9, 10] Amblyopia is preventable.

Sophia

At two years old, when Sophia was just learning to talk, she pointed to her eye and told her mother, "eye broken." Sophia's story is remarkable in that she recognized that she had a problem with her vision and reported it to her mother. Most children with vision problems do not recognize abnormal sight. Her mom took her to Dr. Quinn, a pediatric optometrist, who diagnosed her with farsightedness and astigmatism in both eyes and prescribed eyeglasses. "Sophia could have developed amblyopia, a loss of vision that is difficult to treat as the child grows older. But with glasses, her vision has been able to develop normally. She loves her glasses now." This story highlights the importance of early screening for good vision.

Disparities in Vision Impairment

Nearly two-thirds of children with neurodevelopmental disability such as intellectual disability, cerebral palsy, or hearing loss, also have vision impairment.[11] Children from families with low socio-economic status are at greater risk of vision loss and untreated vision impairment.[12] There are statistically significant differences in prevalence of vision impairment by race and ethnicity, Black and Hispanic children are more likely to have untreated vision problems that result in permanent vision loss than White children.[13]

Risk Factors

Factors that play a role in the development of vision disorders are family history, premature birth, and low birth weight, maternal smoking or substance misuse, and neurodevelopmental delay.[14]

Vision and Early Learning

Good vision is necessary for learning. A recent study funded by the National Institutes of Health confirmed the intimate relationship between early childhood vision and learning. In the study, preschool-age children with a previously undiagnosed vision disorder affecting their 'near' vision and binocularity, which is the ability to focus on a single object with both eyes, demonstrated significantly worse performance on tests of acquisition of early literacy skills required for reading.[15] Another study found that providing eyeglasses to young children with vision problems improved their visual acuity and increased their literacy when compared to children who had vision problems but did not receive treatment.[16] With 48% of Massachusetts 4th graders partially meeting expectations or not meeting expectations in reading, attention to vision problems could help improve learning outcomes.[17] Development of myopia (blurred at distance) typically begins at the age of 6 or 7 and increases both in frequency and magnitude throughout primary and secondary education. It is well understood that difficulty with distance vision creates difficulties for children in the learning process.

Best practice for Detection and Diagnosis

Children do not know to report that their vision is impaired, especially if they have never seen clearly. Screening, comprehensive eye exams, treatment, and follow-up care are essential components of well-child care and school-based health programs. The methods for early detection of vision problems in children include: (1) assessment by primary care providers during well-child visits from birth and throughout childhood, (2) vision screenings performed by qualified screeners in the medical home and preschool beginning at age three years, (3) vision screenings performed by qualified screeners and school nurses beginning in pre-kindergarten and at school entry and periodically during the school years, and (4) comprehensive eye exams conducted by optometrists or ophthalmologists when indicated by risk factors including a failed vision screening.

Massachusetts Background

The Massachusetts Legislature enacted *An Act Relative to Eye Examinations for Children* in 2004. It states, …*Upon entering kindergarten or within 30 days of the start of the school year, the parent or guardian of each child shall present to school health personnel certification that the child within the previous 12 months has passed a vision screening conducted by personnel approved by the department of public health and trained in vision screening techniques to be developed by the department of public health in consultation with the department of education. For children who fail to pass the 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 parent or guardian indicating any pertinent diagnosis, treatment, prognosis, recommendation and evidence of follow-up treatment, if necessary, shall be provided*.[18] The law amended school entry requirements to include vision screening prior to the entry to kindergarten or eye examination including exam results, treatment plan, and recommended follow-up. Unlike the school immunization law that prohibits school admittance if the child is not immunized except in cases of medical or religious waiver, the vision screening requirement does not impact a child's ability to attend school. Thus, the law is difficult to enforce.

The *Childhood Vision and Eye Health Commission*, enacted as Section 135 of Chapter 47 of the Acts of 2017, was created to track the progress made on children's eye health since the passage of the 2004 law. This report is the culmination of the meetings of the Commission.

DPH Young Children Vision Screening Protocols

DPH released vision screening protocols in 2005 to assist primary care providers and others on the recommended screening for preschool age children to meet the school entry requirement. These

protocols are based on vision screening guidelines established from the evidence by pediatric, ophthalmology and optometry professional organizations.[19]

Currently, more than half (59%) of students entering kindergarten have the required screening evidence from their primary care provider (note, this data is drawn only from DPH Essential School Health Services funded school districts).[20] In districts in low-income communities, the reported school entry screening rates are much lower (31%); and once children in those districts are screened by the school nurse, a higher percentage of children are found to need comprehensive eye exams than the statewide average (16% versus 10% statewide) or the average in high-income communities (5%).[21] The percentage of children who complete a comprehensive eye exam after failing a screening is lower in low-income communities (35.2%) than in high-income communities (53.8%).

Early Education and Care and Preschool Requirements

There are no universal vision screening requirements for programs that care for young children. Head Start has a federal mandate to screen all children for vision and hearing. Under the Head Start Program Performance Standards (1302.42 (b)(2) "within 45 calendar days after the child first attends the program or, for the home-based program option, receives a home visit, a program must either obtain or perform evidence-based vision and hearing screenings."[22,23] If a screening was not conducted by the child's pediatrician, then the Head Start program should conduct its own screening.

The Department of Early Education and Care (DEEC) oversees the care and education of young children and the licensing of early education and care programs. DEEC's regulations have requirements for licensees to maintain an individual written record for each child. Medical records include a complete physical examination and a lead poisoning screening. When provided to the program, ongoing records may include documentation of the results of vision, hearing, and dental screenings. Vision screening for young children is not a requirement in current DEEC regulations.

Insurance Coverage of Screening of Young Children

Vision screening is a covered service in Massachusetts for most children. MassHealth and most other insurance plans cover vision screening of preschool age children as required by the Affordable Care Act (ACA), based on the B rating it received from U.S. Preventive Services Task Force (USPSTF). However, vision screening does not occur as often as it should because some insurers pay providers less than the cost of the screening.[24,25] Additionally, many pediatricians do not have the resources to purchase the needed equipment, train staff, and provide the service. Start-up costs are estimated to be several thousand dollars, which is prohibitive for small provider practices.[26] A study by Boston Children's Hospital found that health care providers do not use proper screening techniques.[27]

Eye Exams and Treatments Are Covered but Coverage Is Variable

While vision screening in children is a required ACA preventive service with no co-pays, eye exams and treatments are also covered ACA benefits but they can have co-pays and deductibles and coverage of services vary by plans.[28] Not everyone is able to afford the high costs associated with some coverage.

Tracking of Pediatric Screening of Young Children

There is no insurer quality measure tracking pediatrician and primary care provider provision of vision screening for children ages 0 - 5 years in Massachusetts. The only Massachusetts dataset available on screening comes from DPH's Essential School Health data system which tracks the number of children in funded districts who enter kindergarten with the required screening information. However, vision screening by providers is not tracked by MassHealth as an ACO quality measure, nor is it part of the

Massachusetts Aligned Measure Set developed by the Quality Measure Alignment Taskforce.[29] Quality measures are often a method to improve provider services and track important health outcomes. The federal government has not yet finalized a vision screening measure for young children.

FPS/NECO School-based Vision Center (2004-2017) Ms. Majzoub worked as the Vision Care Coordinator in the Framingham Public Schools and developed a partnership with the New England College of Optometry to build the first school-based vision center in New England. During its first year of operation, she, and Dr. Lyons, Director of the Center, were approached by a special educator who was very excited to tell them about a fifth-grade student whom she had been working with since kindergarten, a child who had made no progress with reading during those years. After his first eye exam, diagnosis and treatment at the Vision Center, the student was reading at grade level after less than a year. The teacher and the child's mom were stunned and extremely grateful.

Expansion of the School-Based Medicaid Program

One new program that can assist children who are enrolled in public school is the expansion of the School-Based Medicaid Program (SBMP) which began July 1, 2019.[30] Previously, SBMP covered direct health services pursuant to a child's special education plan, called an Individual Education Plan (IEP). However, the IEP requirement is now lifted and additional services and provider types have been added such as vision screening and comprehensive eye exams for all children. SBMP is not available for children not in a school setting and so it will likely miss most of the children who are 0 - 5 years old.

Massachusetts Has an Opportunity to Do Better

Massachusetts follows similar trends as the US overall. In a program that provides vision screening at schools in the greater Boston area, 25% of the children screened in preschool and elementary schools failed their vision screening.[31] The New England College of Optometry operated a mobile eye clinic for preschools and schools, with over half of the children who received an eye exam referred by teachers or parents due to vision concerns. Over the last seven years, the mobile clinic examined over 8,000 children from 160 different locations, predominately in low-income communities. Of this subset of students, over 50% had never received an eye examination before, with the majority of students having MassHealth as their insurer (78%). Eyeglasses were prescribed for 35% of the children seen for a variety of conditions.[32]

Findings of the Vision Commission

The Commission found that vision screenings generally do not occur as required by the recommendation of professional organizations, state law, federal law or Massachusetts Essential Health Benefits, particularly in low-income communities, to prevent permanent vision loss in young children. Massachusetts Head Start programs are the exception as federal funding is dependent on compliance with vision screening requirements.

In 2010, Prevent Blindness, a national non-profit vision health advocacy organization, assigned its northeast regional office to convene the Children's Vision Massachusetts Coalition. The Coalition then embarked on a 'situation analysis' of the status of children's vision health in the Commonwealth. This multi-year process included a series of stakeholder interviews, survey of eye doctors related to access (n=1100), study of MassHealth eyeglass benefit.), and analysis of public health and provider data. The study revealed many challenges and disparities related to access to vision screenings, eye exams, and eyeglasses for children in Massachusetts. Despite a large number of pediatric eye doctors, there is a maldistribution of optometrists and ophthalmologists who care for young children and take MassHealth

insurance. Despite compliance with federal and state mandates related to school-based vision screening, in many communities, only a small percentage of children referred to an eye exam for failing a screening actually get an eye exam. Identified gaps are especially severe for children living in low-income communities, urban areas, and in western Massachusetts and the Cape and Islands.

1. A Significant Number of Children in Massachusetts Do Not Receive Appropriate Vision Care and it is Costly.

While insurance has changed to partly cover screenings, eye exams, and eyeglasses, too many young children with treatable, preventable eye conditions are still missed, resulting in permanent and serious vision disorders, including blindness. Children in low-income communities are not screened at the same rate as children in other communities. Many children who are identified as at risk of having a vision disorder do not receive a comprehensive eye exam.

This missed opportunity has real costs for the children, their families, and the Commonwealth. Prevent Blindness commissioned research on the cost of vision problems in the United States, which found the direct and indirect cost of vision loss and disorders in children aged 0 - 17 to be almost $6 billion, with the total burden in Massachusetts for all age groups to be $3 - $5 billion.[33]

Rebecca

Rebecca, a 9-year-old child in Boston Public Schools, timidly approached the volunteer vision screener and asked if she could help her get some glasses. The screener said of course but that first they should do a vision screening. On far acuity, Rebecca could read only the 20/200 line (the threshold for legal blindness) in both eyes. Rebecca's school health record documented that she wore glasses, but her teacher and principal had never seen her with glasses. Her health insurance had 'lapsed' so her principal and the volunteer split the cost of eyeglasses to minimize delay. The teacher later reported that "everything about Rebecca was different" once she had glasses. Until then, Rebecca had made a complete lack of progress in reading and writing.

2. Vision Problems in Children Affects School Performance and Learning.

Vision problems in children adversely impact student school performance, adding challenges for children, their families, and the school districts serving them. School districts that serve a large proportion of economically disadvantaged children have statistically significant lower rates of state-mandated preschool screening documentation provided to the school by a primary care provider (31% vs. 59%).[34] Children with undetected vision problems may also be misdiagnosed as having special needs, a developmental disability, or a behavioral health need. Because children do not know that they cannot see, they do not often verbalize a problem to an adult caregiver. Screenings by school nurses are often the first time a child may have a vision problem identified. Vision screening, done in or out of school by school nurses, primary care providers, and others, is a relatively low-cost method to identify, refer, and treat vision conditions. Given recent research linking the close relationship between childhood vision screening and a child's ability to acquire literacy skills and improve school performance, these screenings can positively impact the long-term productivity and quality of life for children, therefore Massachusetts must do more to address these needs.

3. Children Have Insufficient Access to Vision Care Across the Commonwealth.

Access to screening and comprehensive eye exams varies by geography, insurance type, race/ethnicity, and disability. Only 60% of children on public insurance in Massachusetts had their vision screened and only 70% of children on private insurance.[35] In addition, children in households whose primary language is not English, have significantly lower rates of vision screening. Families whose first

language is not English lack access to care in their language, resulting in stark disparities in screening by native language.[36]

4. Families Face Significant Hurdles to Eye Health.

Many families do not realize the importance of eye health in children and that vision loss can be prevented if caught early. Those families who do receive a vision screen by their pediatrician are often unaware that this service is not a comprehensive eye exam, and do not seek the recommended standard of care. In addition, families who have children with disabilities may be unaware that certain developmental and learning disabilities have a high correlation to vision problems and thus the child always should receive a comprehensive eye exam. Access to optometrists and ophthalmologists varies by region. Nearly all the optometry training is in the eastern part of the state and there is not an even distribution of providers across the state. There are great differences in access between rural and urban areas of the state and many eye doctors are not trained on how to care for children with special health care needs, such as children with autism, those that are non-verbal, or who have sensory sensitivities. Currently, Massachusetts does not provide incentives to eye specialists, such as loan forgiveness, to increase access to this service. Current federal regulations do not allow recent Optometric graduates to participate in the National Health Service Corps or the Massachusetts Loan Repayment Program that incentivize health providers locating in underserved areas. For families on private insurance, the cost of co-pays or deductibles may be barriers to seeking eye examinations or treatment. Since the vision screening system for children is fragmented, parents and caretakers face significant logistical barriers to ensuring good eye health, from finding evidence-based screening to securing a comprehensive eye exam and corrective lenses.

5. Massachusetts has a Fragmented System for Screening, Examining, and Treating Children with Special Health Care Needs, who are Most At Risk for Preventable Permanent Vision Loss.

Massachusetts programs serving young children with special health care needs are not required to assure adequate attention to their vision health. EEC regulations require Individual Health Care plans for each child with a chronic medical condition, but do not require comprehensive eye exams for children in early education and care programs that serve children with special health care needs.[37] In addition, there is no requirement that schools provide comprehensive eye exams for children who are evaluated for learning disabilities and are at high-risk for vision problems.

6. Lack of Coordination Between the Child's Medical Home, School or Preschool, and Eye Care Providers Results in Significant Loss of Follow-up for Comprehensive Eye Exams After a Failed Screening.

There is often lack of care coordination between a child's early education and care program or school, medical home, and eye specialist when a child screens positive for vision problems. Patient data protection laws can create significant barriers to data sharing from the health care providers (Health Insurance Portability and Accountability Act or HIPAA) and from schools (Family Educational Rights and Privacy Act or FERPA). Thus, school nurses and teachers often are unaware when a child is identified as needing eye glasses or other treatments.

7. Lack of Data on Pediatric Screenings and Lack of Incentives for Providers.

Pediatric providers have little incentive to provide vision screening for young children. Reimbursement for screenings is low or incorporated into the overall well-child visit payment. Start-up costs for pediatric vision screening are prohibitive. In addition, pediatric practices are not evaluated by insurers on whether they provide this service. Despite the fact that it is a recommended service by

Massachusetts Health Quality Partners (MHQP) and USPSTF, vision screening of children is not tracked as a quality measure by MassHealth or other insurance programs in the state.

Recommendations of the Vision Commission

1. **ESTABLISH A UNIVERSAL, STATEWIDE DATA SYSTEM FOR VISION SCREENING, COMPREHENSIVE EYE EXAM, DIAGNOSES, AND FOLLOW-UP CARE OF CHILDREN.**

   There is a critical need for a statewide electronic comprehensive surveillance system to ensure universal vision screening, eliminate redundancies, facilitate case management, determine the prevalence and location of vision impairment in children, and allow for an informed allocation of resources. Current data sources rely on national surveys that do not have sample sizes adequate to inform state public health programs and incomplete school-based systems. None are comprehensive or useful as case management or resource allocation tools. Massachusetts has systems to track other important health disorders and prevention programs for children including lead poisoning, immunizations, and hearing screening for newborns. As a critical component of a child's health, development and learning, a systematic approach designed to improve the vision health of children through early detection, diagnosis and treatment, should be a priority.

2. **COORDINATE VISION HEALTH SERVICES FOR CHILDREN, BEGINNING AT BIRTH.**

   Building off existing programs, coordination efforts should identify and improve care coordination and information sharing between child serving programs, including schools and early education and care programs, and pediatric healthcare providers.

   Coordination efforts should explore:

   - options to create a public health education campaign, aimed at parents of young and elementary school children, focusing on the importance of a comprehensive eye exam for symptoms and failed vision screenings;
   - providing guidance and technical assistance to providers in schools, preschools, early education and care centers, medical homes and eye care specialist practices on data sharing and coordination of care that aligns with privacy laws (HIPAA and FERPA) and is supported by evidence;
   - tracking data regarding access to vision screening, eye exam, eyeglass and follow up data in collaboration with insurers;
   - collaborating with providers to enhance information about policy, procedure and benefits regarding eyeglasses, replacement eyeglasses and comprehensive eye exams for children is stated clearly;
   - promoting state law that requires eye doctors to report comprehensive eye exam results to school nurses when a referral is made through school-based screening;
   - amending state vision screening mandates to include children attending private preschools, religious schools, care centers, and children who are homeschooled;
   - periodic review and revision of DPH vision screening guidelines and protocols reflecting new research, new technology, best practices, and new protocols; and

- development of a 1, 5, and 10-year plan with goals, objectives, and measurable outcomes.

3. EXAMINE REQUIRING COMPREHENSIVE EYE EXAMS AT ENTRY TO PROGRAMS THAT SERVE CHILDREN WITH DISABILITIES AND AS A COMPONENT OF THE STATE'S SPECIAL EDUCATION EVALUATION PROCESS.

Given the strong connection between neurodevelopmental disabilities and vision problems, the Massachusetts Vision Screening Law (2004 amendment to Chapter 71, Section 57) requires that upon entering kindergarten "*for children who fail to pass the 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 parent or guardian indicating any pertinent diagnosis, treatment, prognosis, recommendation and evidence of follow-up treatment, if necessary, shall be provided."* Applying this rationale:

- all programs that serve children diagnosed with neurodevelopmental disabilities should explore requiring proof of a comprehensive eye exam at program entry; these include DEEC early education and care programs, DESE public school preschools, and DPH Early Intervention Programs; and
- proof of a comprehensive eye exam should be a required component of the special education evaluation process.

To accomplish this, a vision evaluation should be included in DPH, DEEC, and DESE screening guidelines. Pediatric eye care specialists, pediatricians, and nurses, as well as DEEC, DESE, and DPH staff, should be included in this discussion.

4. ADDRESS INEQUITIES IN ACCESS TO PEDIATRIC OPHTHALMOLOGISTS AND OPTOMETRISTS.

The Commonwealth needs a coordinated approach to ensure statewide access to pediatric eye doctors. Families face multiple barriers when seeking eye care for their children. These include medical, geographic, linguistic, racial, ethnic, socioeconomic, and cultural barriers. There should be an assessment to identify areas of limited or no access to pediatric optometrists and ophthalmologists statewide. Study variables will include access based on insurance type, ability, and willingness to care for children with disabilities, and demonstrated interest in caring for families whose first language is not English. This process could be similar to the process used to designate a Health Professional Shortage Area designated by the National Health Service Corps which evaluates primary care, dentistry, and behavioral health gaps in services by geography. Once gaps are identified, policies should be adopted to ameliorate gaps by including vision care specialists as eligible for programs in Massachusetts that offer provider incentives, such as loan forgiveness programs or state healthcare and workforce funding programs.

5. ADDRESS INEQUITIES IN COVERAGE FOR EYEGLASSES BY ENCOURAGING PAYERS TO ENSURE EYEGLASSES FOR CHILDREN ARE COVERED AND ACCESSIBLE.

As the primary treatment for vision disorders, eyeglasses are prescribed to support a child's visual development, learning, and overall development. When a child is prescribed eyeglasses, it is of equal importance as other medical prescriptions. For some children, prescription eyeglasses support visual and brain development and for others, they optimize vision by correcting refractive error. In a growing child, there may be frequent adjustments to prescriptions. Timely access to affordable eyeglasses that are of sufficient quality, fit and sustainability are vital to children with vision impairments.

Like all medical treatments, access to eyeglasses can be challenging due to co-pays, deductibles and other limitations. Opticians should be further encouraged to participate in MassHealth in order to expand access to eyeglasses. Other opportunities to address include:

- Supporting compliance by providing flexible frames to young children and children with special needs, including streamlining the approval process;
- Supporting quality of life, by encouraging insurers to offer a "second pair benefit."; and
- Encouraging private insurers and vision plans to cover children's eyeglasses at the same level of MassHealth or at least set reasonable co-pays and deductibles.

6. EXPLORE THE FEASIBILITY OF INSURERS INSTITUTING INCENTIVES FOR PEDIATRIC PRACTICES TO PROVIDE EVIDENCE-BASED VISION SCREENING, ASSESSMENT, AND FOLLOW-UP TO ALL CHILDREN AS DELINEATED IN PROFESSIONAL GUIDELINES AND MEDICAID EARLY AND PERIODIC SCREENING, DIAGNOSTIC, AND TREATMENT (EPSDT) BENEFITS.

Insurers should explore developing payment and quality improvement systems that provide incentives to pediatric primary care providers to conduct vision screenings on children and facilitate completed referrals to eye specialists. Incentives should include:

- Reviewing adequate payments for vision screening;
- Developing and implementing quality improvement measures that track primary care screening;
- Instituting policies to assure completion of comprehensive eye exams when child is referred; and
- Credentialing pediatricians, nurse practitioners, school nurses, health managers, medical assistants and others in vision screening and follow-up strategies periodically through online or in-person programming.

Appendix A

School districts reporting preschool vision screening data: Essential School Health Services program (2016-2017 school year).

District
ABINGTON
ACTON-BOXBOROUGH REGIONAL
ANDOVER
ARLINGTON
ASHBURNHAM-WESTMINSTER REGIONAL
ATTLEBORO
BARNSTABLE
BELCHERTOWN
BELLINGHAM
BEVERLY
BILLERICA
BRAINTREE
BRIDGEWATER-RAYNHAM REGIONAL
BROCKTON
BROOKLINE
BURLINGTON
CAMBRIDGE
CANTON
CAPS EDUCATIONAL COLLABORATIVE
CARVER
CENTRAL BERKSHIRE REGIONAL
CHELMSFORD
CHELSEA
CHICOPEE
DANVERS
DEDHAM
DENNIS-YARMOUTH REGIONAL
DOVER-SHERBORN (REGIONAL+ SCHOOL UNION 50)
DRACUT
DUXBURY
EAST LONGMEADOW
EASTON
FAIRHAVEN
FALL RIVER
FALMOUTH
FARMINGTON RIVER REGIONAL
FITCHBURG
FOXBOROUGH

FOXBOROUGH REGIONAL CHARTER (DISTRICT)
FRAMINGHAM
FREETOWN-LAKEVILLE REGIONAL
GATEWAY REGIONAL
GEORGETOWN
GLOUCESTER
GRAFTON
GRANBY
GROTON-DUNSTABLE REGIONAL
HADLEY
HAMPDEN-WILBRAHAM REGIONAL
HAMPSHIRE (REGIONAL+ SCHOOL UNION 66)
HANOVER
HARVARD
HATFIELD
HAVERHILL
HILLTOWN CHARTER
HOLYOKE
HOPKINTON
HUDSON
HULL
IPSWICH
LEOMINSTER
LEXINGTON
LITTLETON
LOWELL
LUDLOW
LUNENBURG
LYNN
LYNNFIELD
MANCHESTER ESSEX REGIONAL
MANSFIELD
MARBLEHEAD
MARLBOROUGH
MARSHFIELD
MARTIN LUTHER KING JR. CHARTER SCHOOL OF EXCELLENCE
MASHPEE
MAYNARD
MEDFIELD
MEDFORD
MEDWAY
MELROSE
METHUEN
MIDDLEBOROUGH
MILLIS
MONOMOY

MONSON
NASHOBA REGIONAL
NATICK
NAUSET (REGIONAL+ SCHOOL UNION 54)
NEEDHAM
NEW BEDFORD
NEWBURYPORT
NEWTON
NORTH ANDOVER
NORTH ATTLEBOROUGH
NORTH BROOKFIELD
NORTH READING
NORTHAMPTON
NORTHBORO-SOUTHBORO (REGIONAL+ SCHOOL UNION 3)
NORTHBRIDGE
NORTON
NORWOOD
PEABODY
PEMBROKE
PENTUCKET REGIONAL
PIONEER VALLEY REGIONAL
PITTSFIELD
PLYMOUTH
QUABOAG REGIONAL REGIONAL
QUINCY
READING
RIVER VALLEY CHARTER
SALEM
SANDWICH
SHAKER MOUNTAIN (SCHOOL UNION 70)
SHARON
SHREWSBURY
SOMERVILLE
SOUTH HADLEY
SOUTHERN BERKSHIRE REGIONAL
SOUTHWICK-TOLLAND REGIONAL
SPENCER-E BROOKFIELD REGIONAL
SPRINGFIELD
STONEHAM
STOUGHTON
SWANSEA
TAUNTON
TEWKSBURY
THE EDUCATION COOPERATIVE (TEC)
WACHUSETT REGIONAL
WALPOLE

WALTHAM
WAYLAND
WEBSTER
WEST BRIDGEWATER
WEST SPRINGFIELD
WESTBOROUGH
WESTON
WESTPORT
WEYMOUTH
WILMINGTON
WINCHESTER
WOBURN
WORCESTER

Note: Includes directly-funded districts and partner districts.

[1] The law states "[t]he commission shall study children's vision care and quality, including (i) vision screening, (ii) eye examinations and appropriate preventative measures and (iii) develop recommendations for ensuring screenings for all children. The commission shall review the Commonwealth's success at preventative measures, including screening, and treating all of its children for vision impairments and eye disease and identify populations that do not receive screening, eye examinations or necessary related treatments."

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[20] Internal DPH analysis using data from the 2016-2017 school year. Based on reports from 143 ESHS-funded school districts Appendix A.
[21] Internal DPH analysis using data from the 2016-2017 school year. The low-income communities are the 7 ESHS-funded districts with an enrollment greater than 1,000 that have the greatest percentage of Economically Disadvantaged students. The high-income communities are the 7 ESHS-funded districts with an enrollment greater than 1,000 that have the lowest percentage of Economically Disadvantaged students. These data understate the differences between children entering kindergarten in low and high income communities since the data on children who need comprehensive eye exams includes children other than those entering kindergarten and who may have had a previous screening.
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[34] Internal DPH analysis using data from the 2016-2017 school year. Based on reports from 143 ESHS-funded school districts.

[35] Internal analysis of 2016 National Survey of Children's Health Indicator 4.6: Has this child had his or her vision tested with pictures, shapes, or letters ever (0-5 years) or during the past 2 years (6-17 years)? By insurance type. Available upon request.

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