National Center for Children's Vision and Eye Health
Prevent Blindness

Vision Screening Considerations During the Coronavirus Disease 2019 (COVID-19) Pandemic for Schools, Head Start, and Early Care and Education Programs

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Introduction

As schools, Head Start/Early Head Start, and early care and education programs reopen during the COVID-19 pandemic, practices that occurred routinely for decades must be reconsidered and redesigned to prevent the spread of the virus among children and staff, and ultimately, the community. Vision screening is one of many services that meet critical needs of children and is an essential service to eliminate poor vision and eye health problems as a barrier to academic and classroom success. Fortunately, vision screeners can employ strategies to manage the risk of COVID-19 exposure and potential transmission during vision screening. Vaccination is currently the leading public health prevention strategy to end the COVID-19 pandemic (CDC). Promoting vaccination can help schools safely return to in-person learning as well as extracurricular activities and sports (CDC). **This document suggests considerations for modifying vision and eye health screening procedures during the COVID-19 pandemic.** This document provides a summary of currently available resources that vision screeners and school nurses can consult as they formulate independent judgment. **This document is not intended to provide clinical standards or guidelines. Vision screeners and school nurses are responsible for complying with applicable federal, state, and local laws, regulations, ordinances, executive orders, policies, and any other applicable sources of authority, including any applicable standards of practice regarding COVID-19.**

The science of COVID-19 continues to evolve rapidly. This document is dynamic and will be updated with the emergence of new knowledge and practices in risk management and reduction. **It is important to be familiar with and closely follow all school district and local guidelines as well as federal and state infection-control recommendations regarding COVID-19.** Conducting vision screening in school and community settings while adhering to physical distancing requirements will be challenging**. We stress the importance of adhering to evidence-based vision screening procedures.** Using modified vision screening practices without evidence may result in inappropriate referrals to eye care providers, causing children and parents/guardians unnecessary exposure to medical settings during a pandemic. Conversely, not adhering to evidence-based practices may miss a vision or eye health disorder and a proper, necessary referral to eye care. Refer to the FAQ document for more detailed information on vision screening.

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Planning

- Some school districts, Head Start, and early education and care programs are barring individuals/volunteers who are not school employees into buildings during the pandemic (CDC). Investigate the program's or school's policy on visitors, contractors, and itinerant employees.
- Verify the screening site has assigned a well-lit, well-ventilated room per CDC guidelines.
- Determine if the assigned room enables separate entrance and exit doors.
- Verify the assigned room will be thoroughly cleaned and sanitized prior to use per CDC guidelines.
- Identify the records that need to be maintained in the event contact tracing is required and request or create a template for managing that documentation.
- Conduct a simulated dry run of the traffic flow, timing, spacing needs, supplies, and screening procedures with adults who are informed of, and participating in, safety procedures.
- Verify availability of assigned monitors for children traveling to and from the screening room.
- If possible, the vision screening room should be near sinks and running water for soap and water handwashing. Verify handwashing facilities are stocked with hand towels, soap, and no-touch trash receptacles.
- Identify who is responsible for notifying parents, teachers, and administrators of vision screening.
- Schools, Head Start, and early care and education programs may have alternating days of in-person attendance, in which different cohorts of students attend on set schedules. Screeners should schedule around cohorts.
- Verify that face coverings will remain on students and adults during the entire screening session.

Training

- Screeners must be trained on all state, district, school, Head Start, or early care and education facilities' COVID-19-related health and safety protocols ahead of screening.
- Screeners should make contact with screening site administrators 2 days in advance of screening to identify any changes in the facility's health and safety protocol.

Hand Hygiene

- Children must wash hands per CDC guidelines for 20 seconds before and after screening.
- Screeners must wash hands per CDC guidelines before screening, after any child contact, and at regular intervals throughout the day.
- If soap and water are unavailable, hand sanitizer that contains at least 60% alcohol can be used.
- Gloves are not necessary (CDC, 2020).
- CDC handwashing guidelines recommend drying hands with paper towels or air drying, and do not include drying hands with motorized hand dryers.
- Avoid touching eyes, mouth, and nose.

Face Coverings (Masks)

When teachers, staff, and students who are not fully vaccinated consistently and correctly wear a mask, they protect others, as well as themselves. With recent evidence on the Delta variant, CDC and the American Academy of Pediatrics now recommend universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status. Based on CDC guidance and the recommendations from the American Academy of Pediatrics for mask wearing indoors to create safe schools during the COVID-19 pandemic, Head Start programs should make mask use universally required, regardless of vaccination status of staff.

- Screeners and children should wear appropriate masks per CDC guidelines during screening. The CDC provides instructions on how to properly wear a mask. Screeners should not conduct vision screening if they cannot wear a mask for a medical reason.
- If children do not have a mask or the mask is not secure or does not cover the nose and mouth, disposable masks should be provided and should be put on by the child prior to entering the screening area. Masks are not required for:
    - children younger than age 2 years,

    - children who have trouble breathing, and
    - children who are unable to comply with wearing a mask due to physical or mental health limitations or developmental delay.
- If a well-fitted mask is unavailable for a child, offer the screening later when a mask is available.
- Screeners should wear masks that fit snugly and cover the mouth and nose. Screeners may wear goggles that cover the sides of the eyes and/or a face shield with a mask. CDC does not recommend use of face shields as a substitute for cloth face coverings. Johns Hopkins University offers additional guidance on face masks.
- Children and screeners should wash their hands before putting on a cloth face covering.
- To put children at ease, screeners may wear a badge or a sign with a smiling photo of their face.
- Per CDC recommendations, store wet and dirty reusable cloth masks in a plastic bag until they can be washed.
- Consult the CDC for specific recommendations for children with special health care needs.

Supplies Needed Specific to COVID-19 Considerations

- Alcohol wipes for occluders (do not use homemade paper occluders, tissues, or hands)
- Disposable matching lap cards (for preschool children – make paper copies of the matching lap card: one per child to be screened, and then discard after screening).
- Tape and or floor markings; measuring tape for 3- to 6-feet measure.
- Supplies for vision screening.
- Face coverings consistent with CDC guidelines.
- Goggles (if screener chooses, in addition to face covering).
- Face shield (if screener chooses, in addition to face covering).
- Sanitizer with at least 60% alcohol (for screener and older children only) and paper towels.
- Disinfectant wipes; cleaning supplies that meet EPA Guidelines for COVID-19.
- Soap.
- No-touch trash cans – with enough capacity for wipes, occluders, and paper towels.
- Entry and exit door signs.
- Disposable single-use gloves for cleaning.

Cleaning and Disinfection

- Standard use of visual acuity charts used at a testing distance of 10 feet should be wiped clean with disinfecting wipes before and after each screening day.
- Vision screening instruments (photoscreeners, autorefractors, etc.) should be cleaned and disinfected after contact with students (NASN).
- Develop and adhere to a schedule for increased routine cleaning and disinfection.
- Verify the room assigned for screening was cleaned and sanitized per CDC guidelines prior to entry.
- Clean and disinfect frequently touched surfaces and items shared between students after each use (CDC Guidelines).
- Cleaning products used by screener must be secured out of reach of children.
- Do not use cleaning products near children.
- Verify that adequate ventilation is available when using cleaning products in the screening space to prevent children or adults from inhaling toxic fumes.
- Do not allow food and beverages in the screening room.
- In areas of low vaccination or high rates of transmission, consider more frequent cleaning and disinfection of high-touch areas (CDC).

Shared Objects

- Ensure adequate supplies of disposable materials to eliminate sharing of high-touch items, such as matching lap cards.
- If screening for color vision deficiency is mandated in your program, district, or state, use a single-use cotton-tipped applicator.
- Do not allow items (e.g., stuffed animals, books) into the screening area that are difficult to clean or disinfect.

Screening Schedule

- Mark floors to provide a visual guide for maintaining 6-foot distancing between the screener, the child, and between adults.
- Children should stand 3- to 6-feet apart while waiting outside the screening room. Mark floors where children should stand.
- Do not call the entire class to the screening area and limit the number of children waiting - based on the amount of space available for waiting. If possible, screen children 3- to 6-feet apart to ensure physical distancing space between children.
- Consider utilizing a 1-way traffic pattern with separate entrance and exit doors.
- Sanitize chairs used during vision screening between children's use. Screener should wash hands after sanitizing objects.
- If pods or cohorts are used (AAP, 2020; CDC, 2020), clean and disinfect the screening area before children from another cohort or pod arrive.

Vision Screeners

- The CDC recommends using cohorts of children and staff (CDC, 2021). Consider not conducting screening at multiple schools, Head Start centers, or early care and education programs where the virus is spreading (CDC, 2021). For case investigation and contact tracing, adhere to school/program procedures.
- **More details about vision screening can be found in the FAQs.**

Vaccination

- As of May 2021, everyone in the United States aged 12 years or older is eligible for vaccination. To find a vaccine, go to vaccines.gov.
- Individuals are considered fully vaccinated 2 weeks after their second dose (with 2-dose vaccines, such as Pfizer or Moderna) and 2 weeks after a single dose (with single-dose vaccines, such as Johnson & Johnson).
- Upon full vaccination, people may resume pre-pandemic activities (CDC). With new evidence of the Delta variant in the United States, however, the CDC recommends fully vaccinated individuals wear masks indoors, especially in areas of high transmission.

Vision Screening (Note, this section addresses adaptations to evidence-based vision screening recommendations during the Covid-19 pandemic.) For more information on vision screening generally, please visit https://nationalcenter.preventblindness.org/vision-screening-guidelines-by-age/

- Standard use of visual acuity charts or booklets, used at a testing distance of 10 or 5 feet and that children do not touch, should be wiped clean before and after each screening day (to protect the screeners) but need not be cleaned between each child's screening. For proper cleaning of charts, please refer to the CDC guidelines on thorough cleaning.
- Distance visual acuity screening can be performed according to safety standards.
    - Consider avoiding optional screenings to minimize in-person contact (AAPOS) unless requested by parents or teachers.
    - Virtual vision screenings are not currently recommended and have not been evaluated for reliability (AAPOS).
- For maintaining distance while conducting screening, it is recommended to use the two instruments approved by the NCCVEH, which are used at a 3-foot screening distance. When the instruments are outside the screening distance range, the screener is alerted via a message on the instrument monitor that the screener is too far away from the child and the instrument will neither capture a reading nor provide screening results. For children over age 2 years, both the child and screener should wear masks covering both the nose and mouth. Instruments provide screening results in less than 1 minute. Consider using vision screening instruments with children ages 1, 2, 3, 4, and 5 years. Consider using vision screening instruments for children 6 years and older **ONLY** if children cannot participate in optotype-based screening (Donahue, et al., 2016). Consider the following precautions when using screening instruments within the ~3-foot distance zone:

- The screener should not enter the ~3-foot physical distancing zone until the screener is ready to operate the device and is wearing appropriate personal protective gear.
- Once a reading is captured and results are on the device screen, the screener should move outside the ~3-foot physical distancing zone until the next child is ready for screening.
- If a screening instrument cannot be operated according to best practices for use (room conditions, lighting requirements, positioning of the device in alignment with the child's eyes, etc.) while COVID-19 risk management precautions are in place, then the device should not be used for screening.

- At this time, no published, peer-reviewed evidence is available stating that screening can be conducted accurately using a plexiglass partition and, thus, is not recommended as a vision screening approach.
- Vision screening may be conducted outdoors, out of direct sunlight. Using a tent or conducting screening under an outdoor, covered picnic area is acceptable. If outdoor screenings will be conducted, do a trial run to ensure the lighting is adequate and to verify if vision screening devices will function properly outdoors in young children with small pupils. The screener should check the outdoor air quality and heat index. If children are recommended to stay inside, the outdoor screening should be moved indoors or rescheduled.
- A child who had a comprehensive eye examination within the last 12 months does not need vision screening. However, it is important to have clear documentation of the eye examination in the child's record. If no documentation exists, the child should be screened.

Please see the FAQ document for more detailed information on vision screening methods and tools.

Parent and Caregiver Education

Vision screening is an important component of pediatric preventative health care and should continue during the COVID-19 pandemic. Prevent Blindness developed the NCCVEH's 12 Components of a Strong Vision Health System of Care**.** These components address parent and caregiver education as well as vision screening, referral to eye care, and more. Whether children attend school, Head Start, or an early care and education program, we encourage parents and guardians to observe and listen to a child for signs of a possible vision disorder. An appointment with an eye care provider should be made if there is ANY concern about a possible vision problem, even if a child passes vision screening. Close-up work required by online and remote learning can exacerbate a previously unknown vision problem, such as myopia. Therefore, parents and guardians need to be vigilant.

When a comprehensive vision screening program cannot be implemented (such as during virtual learning), a document describing signs of a possible childhood vision disorder can be given to parents and guardians. Programs and schools should stress the importance of having the child examined by an eye care provider if the child shows one or more of the signs or symptoms. An easy-to-use checklist for Head Start and early care and education programs is available through Prevent Blindness. This checklist does not replace a screening in Head Start but can be used to make a referral to a healthcare provider. From birth through the first birthday, chart screening is not developmentally possible and there is no evidence to support use of instruments in this age group. The NCCVEH recommends using the *18 Vision Development Milestones From Birth to Baby's First Birthday* in English or Spanish as a vision screening tool for Early Head Start and other early care and education programs.

Conclusion

School and community screenings are safety net programs. If screenings cannot be conducted, families should be instructed to take their children to their primary health care provider for a vision screening or to an eye care provider for a comprehensive eye examination. **Vision screening should be conducted as part of a regular well-child visit at the primary health care provider's office.** The American Academy of Pediatrics strongly encourages families to schedule and keep well-child checks throughout the COVID-19 pandemic. Parents and guardians should receive educational material about the importance of child vision health.

Teachers, administrators, nurses, vision screeners, support professionals, Head Start, Early Head Start, early care and education personnel, and para-professionals are anxious about the difficulties they are facing to meet new educational

expectations. The considerations suggested in this document are designed to ensure that vision screening continues to help children have the best vision possible to succeed academically.

Please see the accompanying FAQ document for more detailed information on vision screening. Please remember, this document is not intended to provide clinical standards or guidelines.

This is a living document. Submit your questions and lessons learned for the next iteration to Donna Fishman at dfishman@preventblindness.org.

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Resources

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"Think of Vision" fact sheets for teachers of preschool and school-age children from Children's Vision Massachusetts

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