

**DSHS Childhood Vision Screening Expert Panel  
Meeting Minutes  
November 16, 2017  
1:00 p.m.**

**Moreton Building Room M-101  
1100 W. 49<sup>th</sup> Street, Austin, TX 78756**

Table 1: DSHS Childhood Vision Screening Expert Panel member attendance at the Thursday, November 16, 2017, meeting.

MEMBER NAME	YES	NO	MEMBER NAME	YES	NO
Dr. Ann Stout	X		Dr. Ann-Marie Mora	P	
Dr. Kara Tison	X		Amy Cochran	X	
Dr. Kartik Kumar	P		Monica Tonn	X	
Dr. Kathleen Murphy	P		Amanda Flores	X	
Dr. Martha Schatz	P		Monica Molina	X	
Dr. Charlotte Akor	P		Dr. Rhonda Stokley	X	

P = called in on the phone.

**Agenda Item 1: Meeting Reminders**

Ms. Stephanie Gutierrez, Project Manager, HHSC Stakeholder Relations gave brief meeting logistics.

**Agenda Item 2: Welcome and Panelist Introductions**

Dr. Rhonda Stokley, D.D.S., PHSSC Interim Section Director for Public Health Screening and Services Coordination welcomed the panelists in the room and over the phone. Dr. Stokley requested panelists introduce themselves. Dr. Stokley gave a brief background of the Vision Screening Program and what the goal is for the panel meeting: a discussion of what vision disorders should be screened for in school age children and what methods of screening are acceptable. Once recommendations have been finalized they will be posted to the website with an open public meeting to follow in early 2018 to receive public comment on the recommendations that come out of the panel meeting.

**Agenda Item 3: Questions 1-3**

**Question 1: What does a complete and accurate vision screen consist of for school aged children?**

The panel agreed on monocular acuity testing at standardized distances and as a second choice, instrument-based screening for children that cannot undergo acuity testing. Instrument based screening does not give a visual

acuity result, instead it picks up risk factors for loss of acuity. The panel agreed monocular screening is sufficient if vision screening is the only objective. Expressed concern for missing additional abnormalities such as misalignment, strabismus, or pupil abnormalities which can be caught with automated devices. The panel agreed that the gold standard according to the current evidence is the standardized wall chart. The panel agreed that near vision screening and binocular screening are not necessary in a school setting. Alternative screening for monocular testing is instrument-based but can be expensive and not practical in a school setting. Instrument-based testing should not replace a monocular vision test, but be in addition.

Discussion about stereoacuity testing, Hirschberg, and Cover/Uncover related to technique consistency, referral reliability and low value during initial screen, compared to secondary comprehensive screening; screening versus diagnostic exams. Panel agrees the focus should be on ensuring good visual acuity screening technique over poor technique on optional, unreliable muscle balance tests as a benefit to both the screener and visual acuity testing.

Instrument-based devices can pick up refractive error risk factors as well as medical risk factors such as cloudiness of the lens or other media opacities, retinal or optic nerve pathology and pupil size differences. Visual acuity testing methods allows the possibility for child to circumvent the monocular testing; if the appropriate occlusive device is not used, a child may “peek.” Concern that instrument-based devices will inappropriately be viewed as a replacement for visual acuity screening for sake of time and efficiency, rather than reliability and effectiveness.

### **Question 2: What vision disorders should children be screened for in a school based setting?**

The panel agreed on significant refractive error, amblyopia, strabismus as a cause of amblyopia, and organic causes of decreased acuity.

### **Question 3: What are acceptable vision screening methods to detect vision disorders in school-based settings?**

- a. What is visual acuity screening?**
- b. What is an automated screening device?**
- c. What is photoscreening technology?**

Regarding visual acuity, the panel discussed removing the Tumbling E chart in a childhood setting; younger children may not yet know their right from left. Panel agreed, little benefit with children and that Tumbling E would be more appropriate for adults with language barrier. The panel also discussed

the Sloan and Snellen charts for older children versus HOTV or Lea symbols for younger children. The panel discussed computer based visual acuity screening and determined the Jaeb Visual Acuity Screener (JVAS) does not show proper evidence of validity. The panel agreed that computer-based screening should be evidence-based and validated. As a group, the panel does not recommend game-based vision screening at this time due to a lack of sufficient research.

**ACTION ITEM:** Dr. Kumar is sending an article to the program related to the JVAS.

Panel agreed that any endorsed screening modality is one that is evidence-based and validation should be maintained if changes occur over time.

Concern with children who are screened and missed due to poor screening technique. Focus on solid standards and technique for acuity testing.

The panel discussed referring children that are not reading at grade level. The panel agreed there are too many variables to consider beyond vision screening if a child is not reading at grade level.

The panel talked about the age and grade to stop vision screening. It was agreed that the end of eighth grade made the best sense. And to keep the first grade screening in an effort for early intervention.

Recap of first half of meeting before break:

Continue with monocular testing as standardized distance. Hirschberg, Cover/Uncover, and stereoacuity continue to be optional and only when the screener is properly trained in these methods. The panel agreed that stereoacuity is a good term to use for testing stereopsis and to eliminate the term tele-binocular screening in the manual.

Panel inquiry related to screener training for physical identification of abnormality such as ptosis or strabismus. If a physical abnormality is visualized, the child should be automatically referred, not screened.

Clarification that organic disorders include cataract or retinal problem, anything that limits vision.

No evidence-based information to support use of photoscreening devices on children over the age of 6; evidence is clear on use for children under 6. Photoscreeners are objective, pass/fail, and must be calibrated regularly.

Concern with leaning toward photoscreening devices for sake of convenience without regard for visual acuity test.

Purpose of public health screening is to identify early, something that is amenable to change, treatment, or care. Early grade screening.

#### **Agenda Item 4: Break**

#### **Agenda Item 5: Questions 4-5**

##### **Question 4: What are standard referral criteria?**

Muscle balance is assessed with the Hirschberg or the Cover/Uncover tests, which are optional and should only be done with proper training. Muscle balance can be partially assessed with an instrument-based device. The panel agreed that wording in the manual regarding the muscle balance test could be clarified.

**ACTION ITEM:** The program will send the current DSHS vision screening manuals to the panel.

The panel agreed to add photoscreening as an instrument-based screening method in the manual as optional screening device. But evidence-based screening specifics would need to be added.

Threshold screening (identifying most letters on a given acuity line per age) is efficient and acceptable. Two-line difference between eyes to detect significant acuity differences between eyes is relevant to all age groups.

For children 5 years and older, if a child's vision is less than 20/30 in one eye, automatic fail and it will be marked for referral.

The panel agrees that the wording in the manual to include photoscreening as optional screening is satisfactory.

##### **Question 5: In consideration of technological advances over time, are there any technology-based vision screening methods that have been professionally accepted and recommended for use?**

###### **a. How does an agency like DSHS, evaluate reliability, effectiveness, or accuracy of such technology-based devices?**

The panel agreed that any device having an FDA designation for the targeted age range would suffice.

The panel agreed that instrument-based screening in children older than age six is no substitute for acuity screening in schools. If the child has

intellectual or developmental delays they should by default have a complete eye evaluation. If a student is uncooperative with being screened, it is considered a fail and they would need to be referred for a complete eye examination.

**Agenda Item 6: Next Steps & Closing Remarks**

The panel mentioned that adhesive occlusal patches are necessary for children 3-10 years old during eye screening. The panel also discussed the importance of a pre-visit prep for teachers to remind them the child needs to undergo the screening with their eye glasses if they have been prescribed for distance wear and not just reading.

**ACTION ITEM:** Dr. Tison will send the program a study done in the 1950's on vision screenings.

The program will pull big topics from the meeting and run it back to the panel for feedback until a solid recommendation is agreed on to be presented to the commissioner and public for comment in early 2018.