# Background: Prevent Blindness Wisconsin and the Wisconsin Lions Foundation

Since 1998, the Wisconsin Lions Foundation and Prevent Blindness Wisconsin have worked together to help fight against blindness and ensure that every child – from six months to eighteen years – sees properly.

# Children's Vision Screenings

A Children's Vision Screening is a simple screening that utilizes a scientifically-validated and approved screening protocol. Using recommended tools, protocols, and procedures and conducted by a Certified Children's Vision Screener trained by Prevent Blindness Wisconsin, vision screening is a cost-effective method to identify children who should continue on for a follow-up comprehensive eye examination with an eye doctor for diagnosis and treatment of vision disorders.

# Why do we need Children's Vision Screenings?

1 in 20 preschoolers and 1 in 4 school-aged children has a vision problem, and it is not always easy to detect. Sometimes children have trouble seeing and don't even realize they are seeing the world differently than others. Healthy vision is important for learning and success in school. For most children, 80% of learning happens visually. Vision problems can make it hard for children to read and learn, and unfortunately, many fall behind in school or show behavioral problems. Certain eye conditions, if not detected and treated early, can lead to permanent vision loss.

# What happens at a Prevent Blindness Wisconsin Children's Vision Screening?

Children's Vision Screenings must be conducted by screeners who have completed the Prevent Blindness Wisconsin Certified Children's Vision Screener Training. At a vision screening, screeners:

- 1. Check the child's eyes for signs of vision problems.
- Test the child's visual acuity. This measures a child's ability to see detail from a distance. Children who go
  untreated with a visual acuity problem may have trouble seeing the blackboard or computer screen at
  school or have difficulty performing well in sports.
- 3. Conduct follow-up, either through phone calls or letters with the parents of children who are referred, or ensure that steps are taken so that follow-up will occur.

#### **Training, Certification and Support**

Certified Children's Vision Screening Trainings are conducted by Prevent Blindness Wisconsin. The course includes an overview of children's vision problems, training in the Prevent Blindness children's vision screening procedures, charts and tools, and a review of referral criteria. Certification is obtained upon completion of the training course and is valid for three years. To schedule a Children's Vision Screening Training for your club or district please contact Valerie at Prevent Blindness Wisconsin.

# Children's Vision Screening Protocol

The purpose of protocol is to ensure that children's vision screenings are accomplished using valid, reliable, and age-appropriate tools and methods by individuals who completed a Prevent Blindness Wisconsin certified Children's Vision Screener Training. Our protocol is scientifically and medically validated by the National Expert Panel at the National Center for Children's Vision and Eye Health at Prevent Blindness.

# **Preschool-age Vision Screening**

The goal of preschool vision screenings is to identify signs of potential vision disorders including amblyopia, strabismus, significant refractive error, and associated risk factors.

The following recommendations were developed by the National Expert Panel at the National Center for Children's Vision and Eye Health, sponsored by Prevent Blindness, and funded by the Maternal and Child Health Bureau of the Health

Resources and Services Administration, United States Department of Health and Human Services. The recommendations describe both best and acceptable practice standards.

Vision screening methods for children aged 36 to younger than 72 months include:

- 1. **Optotype-Based Screening (Best Practice):** monocular visual acuity testing using single HOTV letters or LEA symbols surrounded by crowding bars at a 5-ft. (1.5m) test distance.
  - Measure amblyopic risk factors such as: significant refractive errors, anisometropia (unequal refractive errors), eye misalignment, and cataracts.
- 2. Instrument-based Screening (Acceptable Practice): Plus-Optix or SPOT Vision Screener
  - Provide information about refractive errors
  - Measure amblyopic risk factors such as: significant refractive errors, anisometropia (unequal refractive errors), eye misalignment, and cataracts.

Screening vision with optotype-based tests may be accomplished in children as young as 3 years. However, instrument-based screening remains an acceptable alternative for ages 3 to 5 years. The vast majority of children are able to perform optotype-based screening with a high degree of success and reliability by age 5.

Photoscreening and autorefraction have been recognized by the United States Preventative Services Task Force (USPSTF) as appropriate methodology for vision screening of children aged 3-5 years. Instrument-based vision screening for amblyogenic refractive error is recommended for children aged younger than 4 years, according to updated guidelines from the American Academy of Pediatrics (AAP).

# **School-age Vision Screening**

The goals of vision screening in school-aged children (6-17 years) differ from those aged 5 and younger. The goal of the screening program for school-aged children shifts from a primary focus on prevention of amblyopia and detection of amblyopia risk factors to the detection of refractive errors and other eye conditions that could potentially impact the students' ability to learn or affect their academic performance.

Sloan letters at 10 feet is the recommended screening method for school-aged (6-17) children. This preferred practice guideline is recommended by the American Academy of Pediatric Ophthalmology & Strabismus Panel (2012) and AAPOS (2014).

Most children are able to participate in optotype-based screening with a "high degree of success and reliability by age 5" (AAPOS 2014). Therefore, instrument based screening is not recommended for mass screenings of school-aged children.

# **Contact Information**

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