

Vision Screening for Children and Adult Newcomers

June 15, 2023

Acknowledgment

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Learning Objectives

- Understand the importance of healthy sight to support life in the U.S.
- Describe the evidence-based vision screening methods and tools adapted for newcomer populations
- Identify at least two approaches used to effectively refer children and adults for follow-up vision care
- Identify two to three vision screening resources.

Moderator and Presenters

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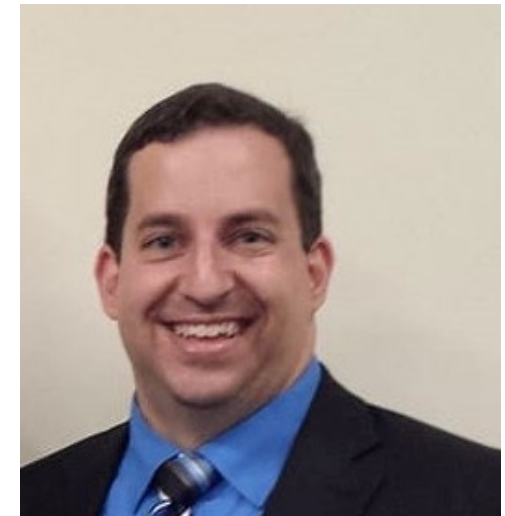
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CDC Guidance: Vision Screening

- Perform formal vision screening in all patients ≥ 3 years of age at the initial domestic medical screening.
- Use of alternate vision charts may be needed if the individual cannot identify letters of the English alphabet.
- For further information on pediatric vision screening standards, see the [AAP: Visual System Assessment in Infants, Children, and Young Adults by Pediatricians](https://doi.org/10.1542/peds.2015-3596) (<https://doi.org/10.1542/peds.2015-3596>) from the American Academy of Pediatrics. If there is clinical concern for earlier testing, refer patient for formal evaluation with a pediatric ophthalmologist.

[CDC: History and Physical Examination During the Domestic Medical Screening for Newly Arrived Refugees](http://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html)

www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html

AAP Guidance: Children's Vision Screening

- Joint statement AAP and Eyecare Associations
- Timing of Examination and Screening
- Procedures for Eye Evaluation

Sources

[AAP: Visual System Assessment in Infants, Children, and Young Adults by Pediatricians \(https://doi.org/10.1542/peds.2015-3596\)](https://doi.org/10.1542/peds.2015-3596)

[AAP: Procedures for the Evaluation of the Visual System by Pediatricians \(https://doi.org/10.1542/peds.2015-3597\)](https://doi.org/10.1542/peds.2015-3597)

Periodicity Schedule for Visual System Assessment in Infants, Children, and Young Adults

Assessment	Newborn to 6 mo	6-12 mo	1-3 y	4-5 y	6 y and older
Ocular history	x	x	x	x	x
External inspection of lids and eyes	x	x	x	x	x
Red reflex testing	x	x	x	x	x
Pupil examination	x	x	x	x	x
Ocular motility assessment	—	x	x	x	x
Instrument-based screening ^a when available	—	^b	x	x	^c
Visual acuity fixate and follow response	^f	x	x	—	—
Visual acuity age- appropriate optotype ^d assessment	—	—	^e	x	x

Tracking and Reporting Data

- Reporting screening results collected during the Domestic Medical Exam for Newly Arrived Refugees will be state-specific.
- Remember to put in EHR per clinic protocol for ongoing monitoring.

mi DEPARTMENT OF HEALTH MINNESOTA INITIAL REFUGEE HEALTH ASSESSMENT FORM
Return completed form, preferably within 30 days of screening completion; instructions are available at the bottom of page 3.

Name (last, first, middle): OSTAPCHUK, OLENA		Arrival Status: Parolee	
Date of Birth (month, day, year): 05/31/1993		Gender: F	
Alien or Visa Registration#: 231-719-979		Resettlement Agency: Private Sponsorship	
U.S. Arrival Date (month, day, year): 06/15/2022		Country of Origin: UKRAINE	
TB Class A or B Status: _____			
Date of First Clinic Visit for Screening (month, day, year): ___/___/___			
Date of Final Clinic Visit for Screening (month, day, year): ___/___/___ (the first and final dates can be the same)			
Screening Clinic Information			
Screening Clinic: _____			
Physician/PA/NP Last: _____		First: _____	
Address: _____			
Name/title of person completing form: _____		Phone: _____	
Interpreter needed: <input type="checkbox"/> Yes, language(s) needed: _____ <input type="checkbox"/> No			
Immunizations			
Please attach immunization record of both overseas and/or domestic vaccinations to this form or specify MIIIC ID below.			
Minnesota Immunization Information Connection (MIIIC) ID: _____			
If immunizations were not given in U.S., list reason: _____			
Lab evidence of immunity			
Hepatitis A Total Antibodies: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Indeterminate			
Measles: <input type="checkbox"/> Immune <input type="checkbox"/> Not Immune <input type="checkbox"/> Indeterminate			
Mumps: <input type="checkbox"/> Immune <input type="checkbox"/> Not Immune <input type="checkbox"/> Indeterminate			
Rubella: <input type="checkbox"/> Immune <input type="checkbox"/> Not Immune <input type="checkbox"/> Indeterminate			
Varicella: <input type="checkbox"/> Immune <input type="checkbox"/> Not Immune <input type="checkbox"/> Indeterminate			
Tuberculosis Screening			
Tuberculin Skin Test (TST) (regardless of BCG history)	Chest X-Ray – done in U.S. (if TST or IGRA positive, Class B, or symptomatic)	Diagnosis (must check one)	Treatment (for TB disease or LTBI)
Date TST placed (in U.S.): ___/___/___	Date of Chest X-Ray (in U.S.): ___/___/___		Start Date: ___/___/___ OR Reason for not treating
Date TST read (in U.S.): ___/___/___	<input type="checkbox"/> Normal	<input type="checkbox"/> No TB infection or disease	<input type="checkbox"/> Declined treatment
____mm Induration (not redness)	<input type="checkbox"/> Abnormal, stable, old or healed TB	<input type="checkbox"/> Latent TB infection (LTBI)*	<input type="checkbox"/> Lost to follow-up
<input type="checkbox"/> Past history of positive TST (66)	<input type="checkbox"/> Abnormal, cavitary	<input type="checkbox"/> Old, healed <u>not</u> prev. Tx TB*	<input type="checkbox"/> Moved out of MN
<input type="checkbox"/> Not done (99)	<input type="checkbox"/> Abnormal, non-cavitary, consistent with active TB	<input type="checkbox"/> Previously treated LTBI	<input type="checkbox"/> Pregnancy or Breastfeeding
Date of IGRA (in U.S.): ___/___/___	<input type="checkbox"/> Abnormal, not consistent with active TB	<input type="checkbox"/> Old, healed prev. Tx TB	<input type="checkbox"/> Medical other than pregnancy
IGRA Test: <input type="checkbox"/> QFT <input type="checkbox"/> T-SPOT	<input type="checkbox"/> Pending	<input type="checkbox"/> Active TB disease – (suspected or confirmed)*	<input type="checkbox"/> Provider decision
<input type="checkbox"/> Positive	<input type="checkbox"/> Declined CXR	<input type="checkbox"/> Pending	<input type="checkbox"/> Further evaluation pending
<input type="checkbox"/> Negative		<input type="checkbox"/> Incomplete evaluation	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Indeterminate			
<input type="checkbox"/> Borderline			
<input type="checkbox"/> Not Done			

CDC Guidance: Epidemiology and Impact

- In refugees, visual impairment may be due to conditions commonly seen in the United States (e.g., strabismus, refractive errors, cataracts), due to infection (e.g., trachoma), and/or vitamin A deficiency.
- Blindness and vision impairment are major health problems and may lead to substantial suffering, disability, loss of productivity, and diminished quality of life [4].
- Vision impairment often affects a person's ability to drive, read, learn, use electronic screen-based technologies, or complete household or personal tasks [5].
- Blindness or impaired vision may result in difficulty obtaining or maintaining employment, inability to learn in school, challenges driving to and from medical appointments, engaging in activities such as English language classes, or participating in other programs.
- Reduced vision among mature adults has been shown to result in social isolation, increased fall risk, and subsequent bone fractures, depression, family stress, disability, and premature death [4, 6–8].

[CDC: History and Physical Examination During the Domestic Medical Screening for Newly Arrived Refugees \(www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html\)](http://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html)

The Importance of Healthy Sight to Support Life in the U.S.

- Good vision is critical to fully integrate into American life and culture
- Good vision is too often forgotten within the overall health care process

Entry to Vision Care in the U.S.

- Vision screening
- Comprehensive eye examination

Childhood Vision Problems

- Non-apparent nature of childhood vision problems
- Effect on development

Childhood Vision Abnormalities

- Refractive error
- Amblyopia and strabismus
- Disease- hereditary and acquired

Childhood Vision Problems- Functional Effects

- Education
- Behavior- socialization
- Physical Activity

Adult Vision Problems

- Non-apparent nature of adult vision problems
- Impediments to normal activities

Adult Vision Problems- Common Conditions

- Refractive Error
 - Presbyopia
 - Distance vision
- Ocular health- cataracts, glaucoma, retinopathy, etc.
- Relationship to overall health and well-being

Adult Vision Problems- Functional Effects

- Family life
- Workplace
- Mobility
- Dealing with the complexity of American life at home and away

Approaches to Vision Screening



- Functional vision screening
 - How a child or adult uses the visual system
 - Provides information on how the entire pathway is operating, including cognition
 - Example: visual acuity or stereoacuity
- Structural vision screening
 - Provides information on the physical characteristics the eye
 - Tells you about how well the patient can actually see
 - Example: refraction, ophthalmoscopy, photorefraction, imaging





Screening Children's Vision

P. Kay Nottingham Chaplin, EdD

Disclaimer

- 1099 contracted vision screening consultant for The Good-Lite Company and School Health Corporation.
- Some of the vision screening charts I will show are manufactured by Good-Lite, which holds an exclusive license to manufacture tools with LEA SYMBOLS[®] or is the sole manufacturer of AAPOS kits.

Vision Screening Methods Beginning at Age 3 Years

- Observation – all ages
- Optotype-Based Screening (eye chart) – all ages
OR
- Instrument-Based Screening – ages 3, 4, and 5 years only
- Office Workflow



Vision Screening Begins with Observation

Appearance

- Eyes do not look straight ahead.
- The pupil in one eye is larger than the pupil in the other eye.
- Both eyes jerk back and forth quickly.

[Prevent Blindness: Signs of Possible Vision Problems in Children](https://nationalcenter.preventblindness.org/wp-content/uploads/sites/22/2020/10/5A-Signs-vision-problems-in-children.pdf)

[\(<https://nationalcenter.preventblindness.org/wp-content/uploads/sites/22/2020/10/5A-Signs-vision-problems-in-children.pdf>\)](https://nationalcenter.preventblindness.org/wp-content/uploads/sites/22/2020/10/5A-Signs-vision-problems-in-children.pdf)

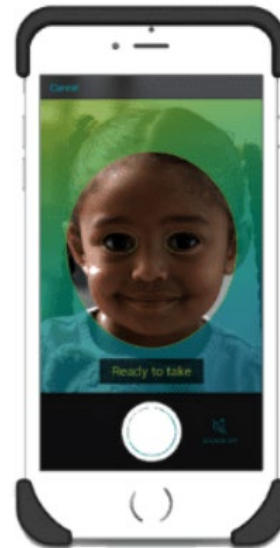
Instrument-Based Screening – Ages 3, 4, and 5 Years Only

Recommended Instruments



Plusoptix

- Without Visual Acuity Function



GoCheck Kids

- Without Visual Acuity Function



Spot

Distance Visual Acuity Screening – All Ages



Sight Line Handheld
Vision Screening
Flipbook Kit



AAPOS Vision
Screening Kit with
HOTV and Sloan
Letters

Near Visual Acuity Screening – All Ages

- Children ages 3, 4, and 5 years – near visual acuity screening even if using an instrument



AAPOS Near
Vision Kit



Massachusetts Test
HOTV / Sloan Letters
Near Vision Screener

Children Who Should Receive an Eye Examination Even if They Pass Vision Screening – Higher Risk for Vision Disorders - NCCVEH

Readably observable ocular abnormalities

Strabismus
(Eyes are not aligned)

Ptosis
(Droopy eyelid)

Neuro-developmental disorders, such as:

Hearing impairment

Motor, such as CP

Down Syndrome

Cognitive impairment

Autism Spectrum Disorder

ADHD

Systemic conditions with ocular abnormalities, such as:

Diabetes

Juvenile Arthritis

Parents or siblings with history of:

Strabismus

Amblyopia

History of prematurity

< 32 completed weeks

Parents who believe their child has vision problem

Message to primary care providers:

Please refer child for eye examination

Office Workflow for Vision Screening

- Near visual acuity screening and instrument screening: in exam room
- Distance visual acuity screening: in quiet, uncluttered hallway or an 11- or 12-foot space

Ocular Examination by Health Care Provider in Addition to Vision Screening

- External examination
 - Pupil examination
 - Red reflex testing to access ocular media
 - Examination of ocular fundus with an ophthalmoscope
 - Assessment of visual function
-
- For details:
 - Donahue, S. P., Baker, C. N., & AAP Committee on Practice and Ambulatory Medicine, AAP Section on Ophthalmology, American Association of Certified Orthoptists, American Association for Pediatric Ophthalmology and Strabismus, American Academy of Ophthalmology (2016). Procedures for the evaluation of the visual system by pediatricians. *Pediatrics*, 137(1), e20153597.
<https://publications.aap.org/pediatrics/article/137/1/e20153597/52806/Procedures-for-the-Evaluation-of-the-Visual-System?searchresult=1>

Adult Vision Screening

Vision Problems

- Age-related macular degeneration
- Cataracts
- Glaucoma
- Diabetes-related retinopathy

Steps in Adult Vision Screening

- Risk Assessment
 - [Prevent Blindness: Adult Vision Risk Assessment](https://preventblindness.org/wp-content/uploads/2020/12/AB16_Risk_Assessment-2.pdf)
(https://preventblindness.org/wp-content/uploads/2020/12/AB16_Risk_Assessment-2.pdf)
- Distance Visual Acuity Test
- Near Visual Acuity Test
- Sharing of Results
- Referral and Follow-up

Clients can be referred for a professional eye exam at any point in the screening process- including the assessment of acuity tests.

Modification: Prioritize Specific Risk Assessment Questions

- When was your last eye exam?
- Do you have diabetes?
- Do you have persistent pain in or around your eye?
- Have you noticed a change in your vision in the last year?

[Prevent Blindness: Adult Vision Risk Assessment](https://preventblindness.org/wp-content/uploads/2020/12/AB16_Risk_Assessment-2.pdf)

https://preventblindness.org/wp-content/uploads/2020/12/AB16_Risk_Assessment-2.pdf

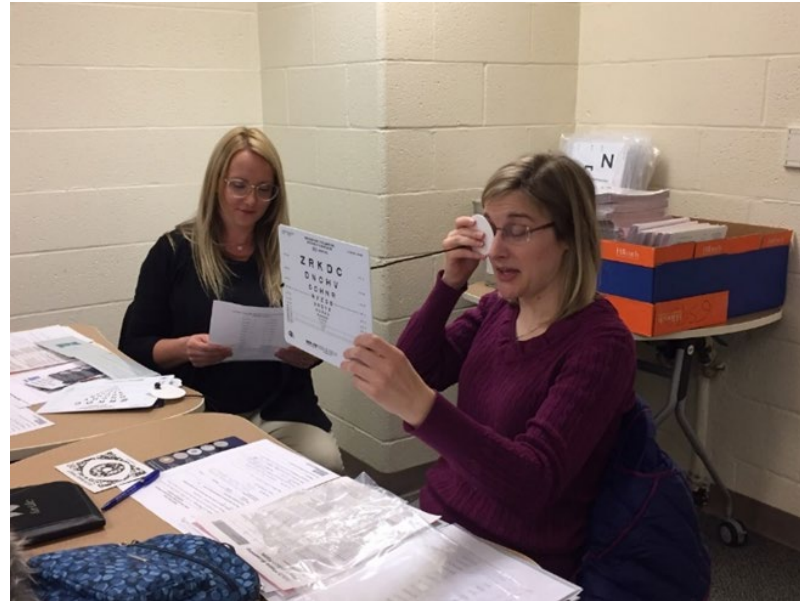
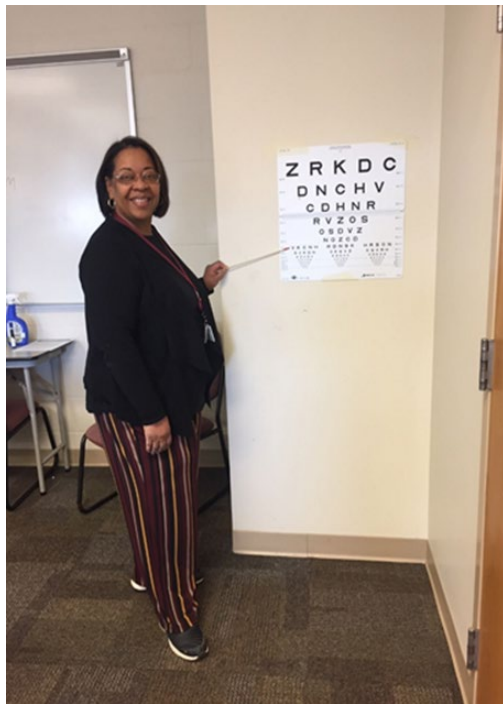
Risk Assessment Referral Criteria

- If answer yes to two or more risk assessment questions
- If checked yes to “persistent pain:
- Have had diabetes and not had professional eye care in the past year
- Have not had an eye exam in the last two to four years
- Have noticed a change in their vision

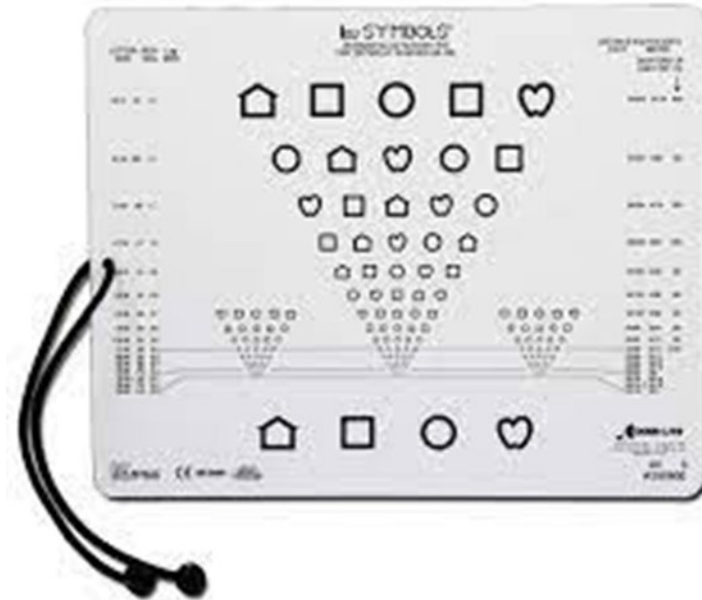
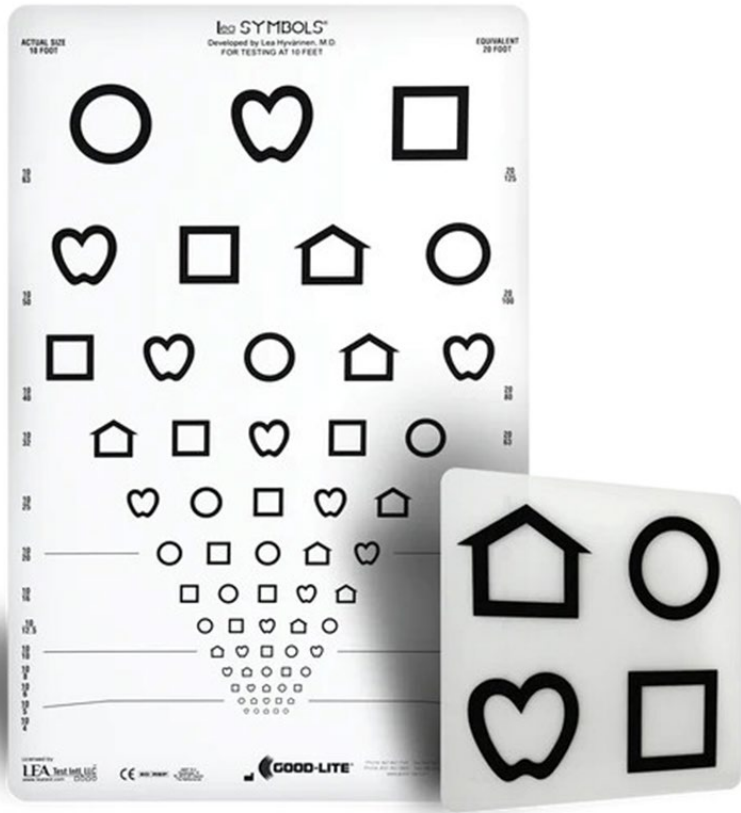
You can refer patients at any point in the screening process

Distance and Near Visual Acuity Tests

Refer anyone whose acuity is 20/50 or worse in either eye-distance or near.



Charts



Office Workflow for Adult Vision Screening

- Do Risk Assessment and near visual acuity screening in the exam room for taking weight, blood pressure, and other measurements
- Do distance visual acuity screening in a quiet, uncluttered hallway or an 11- or 12-foot space before or after doing near vision, taking weight, blood pressure, and other measurements
 - Maybe in the exam room where the health care provider will see the patient depending on the room size
 - For adults, the Risk Assessment should ideally be conducted first. Volunteer screeners could possibly conduct the adult screenings in a separate space. If the client reads English or has a translator, they could fill out the Risk Assessment form in a waiting room

Remember.....

- A screening is only as good as getting people to the comprehensive eye care they need!

Follow-Up to Eye Care

- Create a follow-up system to ensure the eye examination occurs: Optometrist or Ophthalmologist
- Offer a warm “hand-off” to eye care
- Use and enhance partnerships
- Identify and help to remove any difficulties (barriers) to care

**Follow up is a critical component
of vision screening!**

Common Concerns About Follow-up Eye Care

- Transportation challenges
- Hours available for appointments
- **Ages of children treated by eye doctor**
- Language/cultural barriers between family and the provider
- **Cost, co-pays, and insurance issues**



Vision Health Coverage

- Coverage for eye examinations and glasses under Medicaid and Refugee Medical Assistance varies from state to state. Some insurance plans may cover eye examinations or glasses, while others do not.
- *State Medicaid offices or local resettlement agencies may help determine available coverage.*
- Some providers may be able to provide free or low-cost eye exams and services to patients with demonstrated need if insurance coverage is limited.
- *Check with local vision providers to determine availability and develop a referral process.*
- Individual states may also have some programs to support vision care (some providing free glasses to those in need), and providers should also become familiar with these programs.

[CDC: History and Physical Examination During the Domestic Medical Screening for Newly Arrived Refugees \(www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html\)](http://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/guidelines-history-physical.html)

Questions?



Prevent Blindness Vision Screening Training and Certification- Children



Zenni Scholarship to Advance Children's Vision



Vision Screening Certification

[Prevent Blindness: Children's Vision Screening Certification Course](https://nationalcenter.preventblindness.org/prevent-blindness-childrens-vision-screening-certification-course/)

[\(https://nationalcenter.preventblindness.org/prevent-blindness-childrens-vision-screening-certification-course/\)](https://nationalcenter.preventblindness.org/prevent-blindness-childrens-vision-screening-certification-course/)

[Prevent Blindness: Zenni Scholarship to Advance Children's Vision](https://preventblindness.org/zenni-scholarship/)

[\(https://preventblindness.org/zenni-scholarship/\)](https://preventblindness.org/zenni-scholarship/)

NOTE: Prevent Blindness Affiliates offer children's vision screening certification in IA, GA, WI, OH, TX, NC



Prevent Blindness Vision Screening Certification Course- Adult

- Eye anatomy
- How the eye works
- Refractive errors
- Adult vision screening
- Follow-up and documentation
- Skills assessment

NOTE: Prevent Blindness Affiliates offer adult vision screening certification

[Prevent Blindness Adult Vision Screening Certification Course Interest Form \(www.surveymonkey.com/r/YRTKKWV\)](http://www.surveymonkey.com/r/YRTKKWV)

Financial Resources

Prevent Blindness Programs

- VSP (Vision Service Plan) Eyes of Hope Gift Certificate Program: Provides eye exams and eyeglasses.
- OneSight Eyeglass Referral Program: Assists clients with current eyeglass prescriptions with quality eyewear.
- **More programs:** [Prevent Blindness: Financial Assistance Information](https://preventblindness.org/wp-content/uploads/2023/03/IC03_Financial_Assistance3-21-23-3.pdf)
(https://preventblindness.org/wp-content/uploads/2023/03/IC03_Financial_Assistance3-21-23-3.pdf)

Website

- [Prevent Blindness: Vision Care Financial Assistance Information](https://preventblindness.org/vision-care-financial-assistance-information/)
(<https://preventblindness.org/vision-care-financial-assistance-information/>)

Contact

- Tasha Lockridge: 800-331-2020
- info@preventblindness.org
- **Prevent Blindness affiliates in TX, IA, GA, NC, WI and OH**

Resources for Eye Exams and Treatments

- For children: [Children's Eye Foundation: All Children See](http://www.childrenseyefoundation.org/webdev/what-we-do/all-children-see) (www.childrenseyefoundation.org/webdev/what-we-do/all-children-see)
- For adults: [American Academy of Ophthalmology: EyeCare America](http://www.aao.org/eyecare-america) (www.aao.org/eyecare-america)
- [VOSH/International: Bringing Vision to Every Person on the Planet](https://vosh.org/) (<https://vosh.org/>)
- Prevent Blindness Affiliates
 - [Georgia](http://georgia.preventblindness.org/) (georgia.preventblindness.org/)
 - [Iowa](http://iowa.preventblindness.org/) (iowa.preventblindness.org/)
 - [North Carolina](http://nc.preventblindness.org/) (nc.preventblindness.org/)
 - [Ohio](http://ohio.preventblindness.org/) (ohio.preventblindness.org/)
 - [Texas](http://texas.preventblindness.org/) (texas.preventblindness.org/)
 - [Wisconsin](http://wisconsin.preventblindness.org/) (wisconsin.preventblindness.org/)
- Ophthalmology and Optometry training programs: charity care and clinics

Vision and Eye Health Resources

Subscribe to Newsletters:

Prevent Blindness:
Subscribe to eNews!
(<https://preventblindness.org/subscribe-to-eneews/>)

National Center for Children's Vision and Eye Health: **Subscribe to National Center ENews**
(<https://nationalcenter.preventblindness.org/subscribe-to-national-center-eneews/>)

Fact Sheets: Pediatric and Adult Vision and Eye Health

Prevent Blindness: Eye and Vision Health Fact Sheets
(<https://preventblindness.org/eye-and-vision-health-fact-sheets/>)

Eye Diseases

Prevent Blindness: Eye Problems in Adults and Children
(<https://preventblindness.org/eye-problems-adults-children/>)



Eye Health Information Toolkit for Parents and Caregivers

National Center: Small Steps for Big Vision Toolkit
(<https://nationalcenter.preventblindness.org/small-steps-for-big-vision/>)

For More Information

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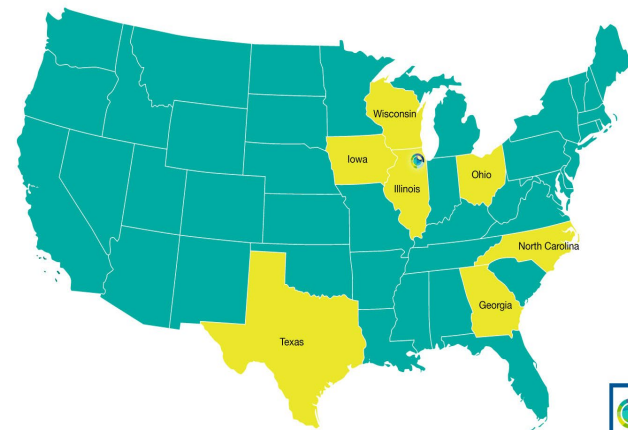
[National Center for Children's Vision and Eye Health: A Lifetime of Healthy Vision](https://nationalcenter.preventblindness.org/)

[\(https://nationalcenter.preventblindness.org/\)](https://nationalcenter.preventblindness.org/)

[Prevent Blindness: A Lifetime of Healthy Vision](https://preventblindness.org/)

[\(https://preventblindness.org/\)](https://preventblindness.org/)

Prevent Blindness offices and affiliates



Center of Excellence Reminders!

- Evaluation and CMEs/CEs
- **Subscribe to Center of Excellence in Newcomer Health Updates**
(https://public.govdelivery.com/accounts/MNMDH/subscriber/new?topic_id=MNMDH_463) for training announcements and other guidance and resources.
- **Upcoming trainings** (ECHO trainings, Ukrainian Health) at **Center of Excellence in Newcomer Health: Webinars**
(www.health.state.mn.us/communities/rih/about/coe.html#webinar)

NEWCOMER HEALTH



This ECHO series is designed to increase medical providers' knowledge of the resettlement and health issues of newcomers, including refugee, immigrant and migrant (RIM) populations. It will review resettlement pathways, evidence-based screening recommendations, and more common diagnoses and treatment approaches for pediatric and adult populations.

Sessions include brief didactic presentations by immigrant health experts and discussion of participant-submitted cases. Participants are highly encouraged to submit de-identified patient cases for group discussion and expert consultation.

ONGOING MONTHLY VIRTUAL SESSIONS
Last Tuesday of the month
6:00 AM PT | 7:00 AM MT | 8:00 AM CT | 9:00 AM ET

REGISTER TODAY!
echocolorado.org/echo/newcomer-health/

UPCOMING SESSIONS

OCTOBER 25
Introduction to Refugee Resettlement

NOVEMBER 29
Afghan Health Considerations

JANUARY 31
Ukrainian Health Considerations



REGISTER HERE



Complete your evaluation
Thank You!