

# Kidscreen

## Early Childhood Screening: An Outreach Model



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# Participants will be able to:

- list screening procedures for hearing, speech, and vision in an early childhood screening program
- Identify factors that affect on-site screening workflow
- Describe administrative functions in coordinating a screening program

# The Marion Downs Center

- A non-profit center of excellence in Denver
- Serves all ages and economic groups
- Provide awareness, education, and clinical services
- Support all communication methodologies
- Identify and bridge gaps in the community
- Support training of students and professionals
- Create model programs to be emulated by others



# KidScreen Program Overview

- Helps programs and schools meet federal obligations to find, identify, and service children with disabilities under the Individuals with Disabilities Education Act
- Low-cost screenings for Early Head Start/Head Start sites, private schools, & childcare sites
- Mostly screen children 6 months to 5 years
- Can screen newborns to high school



# Hearing Screening Protocol



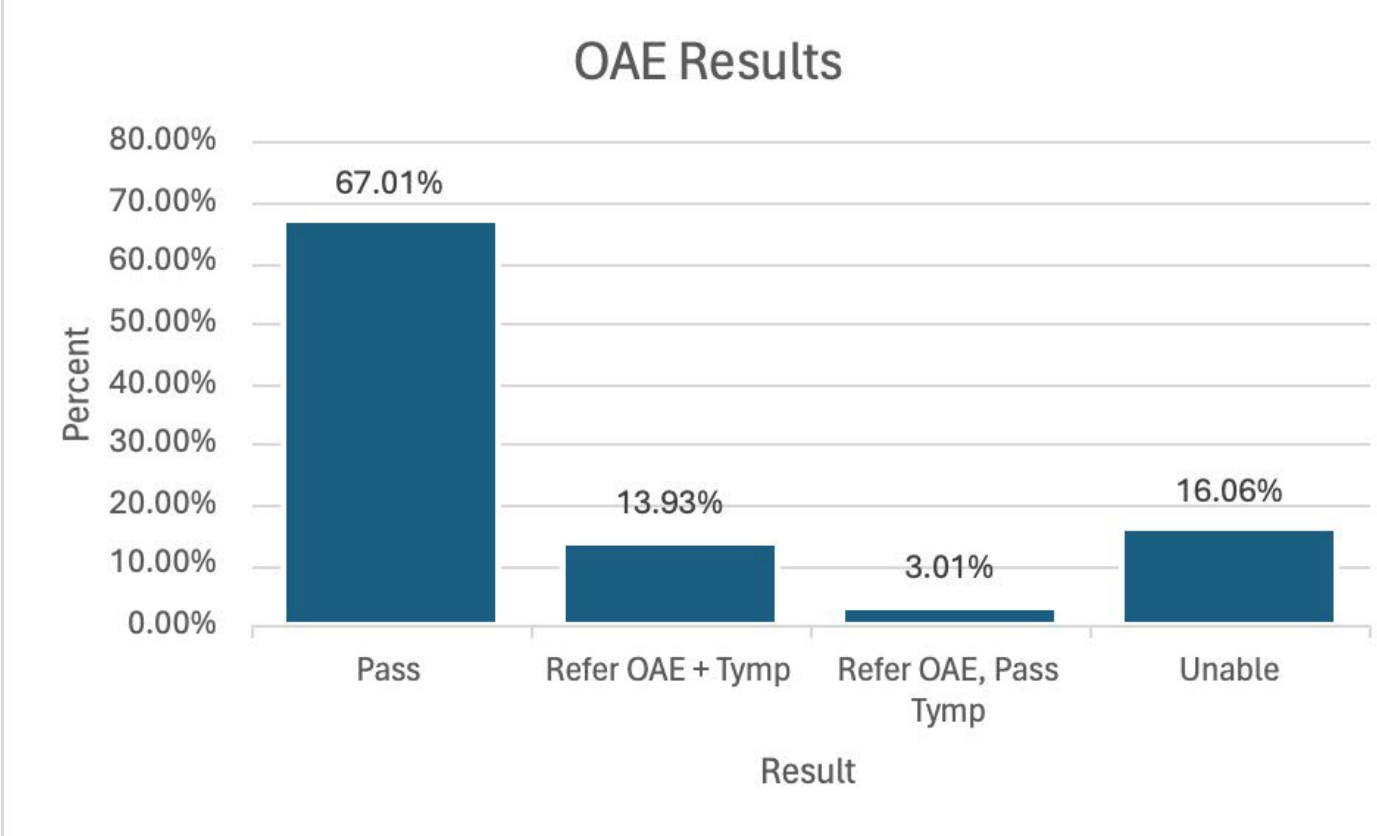
# Hearing Protocol Birth - 3yr 11m

- OAEs are completed using automatic screening protocol
- Tympanometry is completed following a refer on OAE
  - If refer on Tympanometry
    - we rescreen for EHS/HS sites
    - We medically refer for private sites to clear middle ear health
  - If refer on OAE but pass Tympanometry we refer to audiology
- Rescreen
  - If refer on OAE and Tympanometry we refer for middle ear health
  - If refer on OAE but pass Tympanometry we refer to audiology

# Hearing Protocol for Children 4yr+

- Pure tones are completed at 1kHz, 2kHz, & 4kHz at 20dB
- Tympanometry follows a refer at any frequency
  - If refer on Tympanometry
    - we rescreen for EHS/HS sites
    - We medically refer for private sites to clear middle ear health
  - If refer on OAE but pass Tympanometry we refer
- If a child cannot condition to pure tones, we use OAEs
- Rescreen
  - If refer on Pure Tones or OAEs and Tympanometry we refer for medical
  - If refer on Pure Tones or OAEs but pass Tympanometry we refer to audiology

# Hearing Screening Data

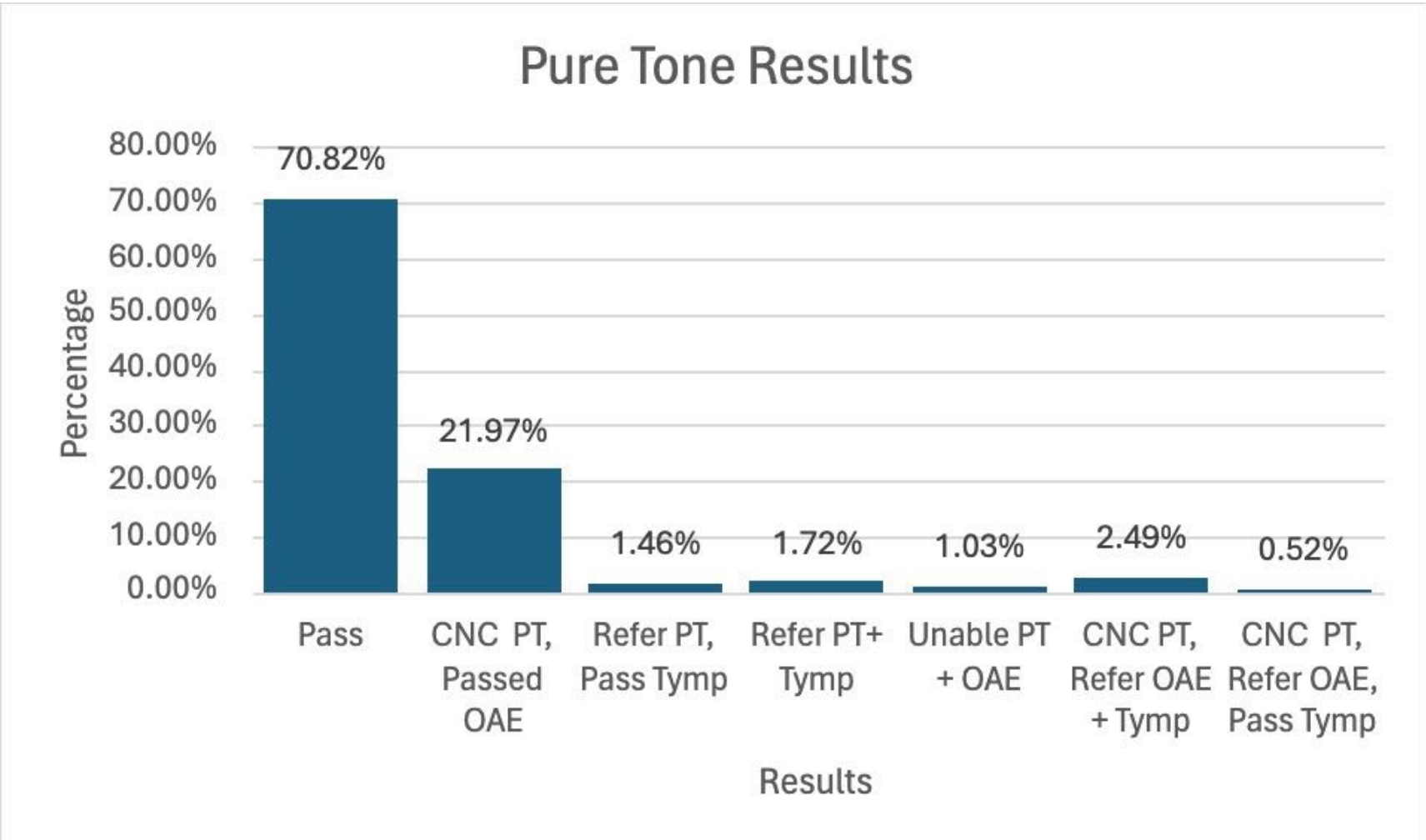


OAE results from children birth to 3 years, 11 m.  
Kidscreen data August 1, 2022, through November 31, 2023.





# Hearing Screening Data



Pure Tone results for children 4 years and older.  
Kidescreen data August 1, 2022, through November 31, 2023.

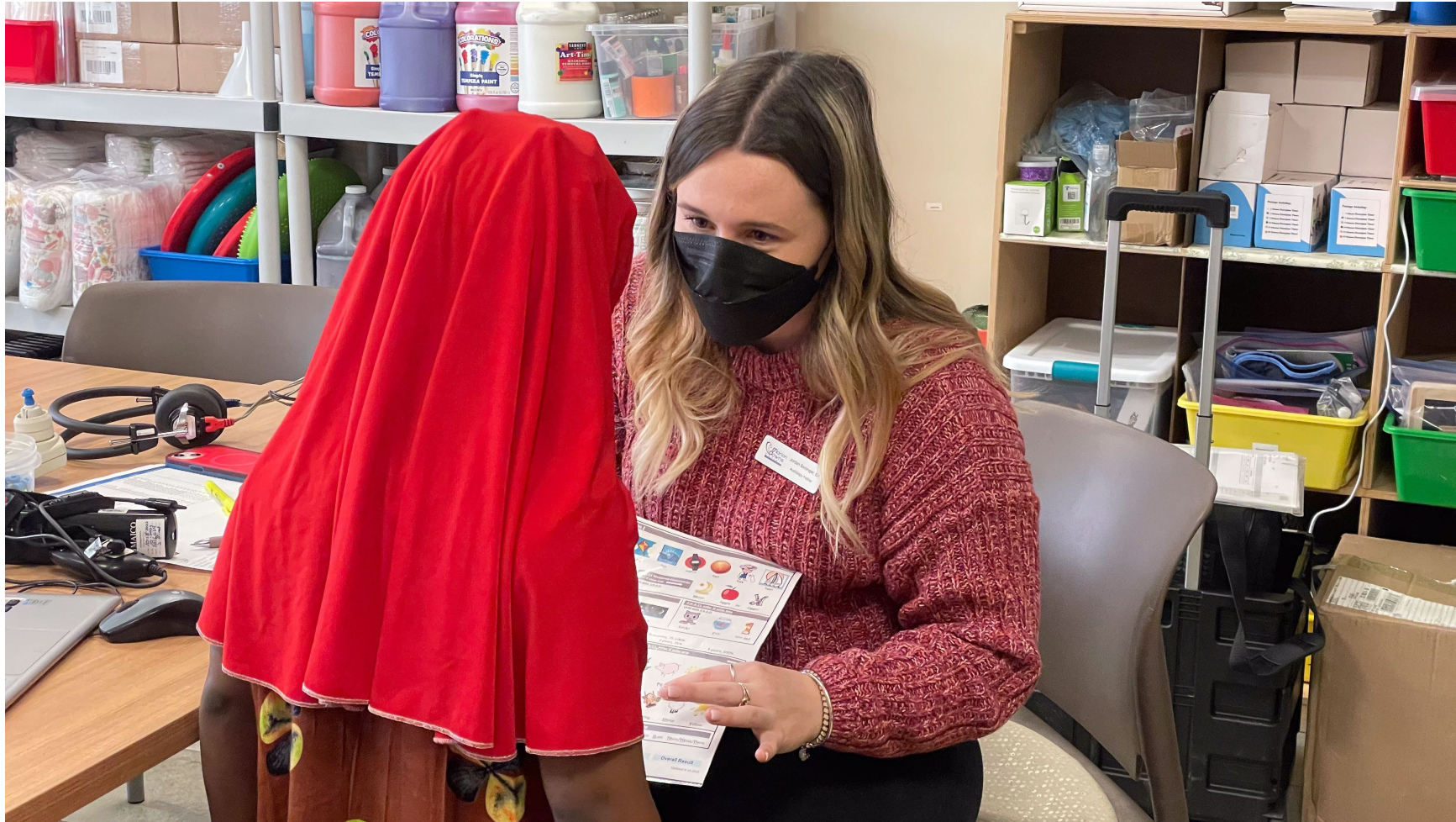
# Hearing Screening Data

- 10% Refer to pediatric audiology (0-35 months)
  - Includes refusals
- 14.7% Unables rate among young children (0-35 months)
- 35% Refer rate among rescreens in EHS (0-35 months)
- Denver Greater Kids Head Start - Fall 2023
  - 42% of HeadStart referrals were for middle ear health
  - More than 1 out of 4 children referred to audiology don't follow up

Kidscreen data August 1, 2022, through November 31, 2023, DGKHS Report July-December 2023



# Speech/Language Protocol



- Language Questionnaire
  - Ask those most familiar with child
- Speech Card
- Conversational Intelligibility

**SPEECH/LANGUAGE SCREENING GUIDELINES**

**0:6-1:11 or 6 months-1 year, 11 months of age, Basic Screening:** It is difficult to screen the speech and language of infant and toddlers especially by unfamiliar adults. Try to talk to the teacher and ask if there are any concerns.

**0:6-0:11 or 6-11 months, language/communication development (from PLS-5):**

1. Child shakes or bangs one or more objects
2. Child laughs, closes eyes, or tenses body in anticipation of what will happen next (before being tickled or kissed, or arches back when about to be picked up, quiets or gets excited when about to be fed)
3. Child vocalizes when talked to, moving arms and legs during vocalizations
4. Child attempts to imitate facial expressions and movements (opening eyes wide, scrunching face, opening mouth wide, blowing raspberries, puckering lips for a kiss)
5. Child produces a sound combination or syllable, like "ah-eg" or "oh-oooh" or "ba, ma, da, doo, tee" or "ahk, ahp, ohm" NOT "b-b-b-b-b" or "aaaaahhhhh" or "mmmmmmmm"

Passing = 4/5

**1:0-1:11 or 1 year-1 year, 11 months (from PLS-5):**

1. When you point to and name a person or thing, does your child look at that person or thing?
2. Child uses at least one word (like "ba" for ball or "baba" for bottle)
3. Child maintains attention and eye contact and enjoys interacting with caregiver in play routine for 1 minute (smiling, laughing, or looking happy during peek-a-boo or pat-a-cake or rolling a ball back and forth or looking at a picture book)
4. Child stops, withdraws, or pauses briefly before reaching for object when caregiver says "no" or "no-no"
5. Child understands a specific word or phrase without gestures or physical cues. If ask, "Where's mama?" child looks at mom. Or if say, "Get the \_\_," the child looks at it and picks up or gives to the caregiver.

Passing = 4/5

**2:0-2:5 Speech:**

Speech Card with Emerging Vowels: "feet, fish, kite, hat/cap, watch, ball, boy, boat, foot, cup"  
Child can miss 1 vowel.

**2:6-2:11 Speech:** 90% of normative sample on GFTA-3, 2015 mastered /m/ in initial, "moon" and /p/ in medial, "apple" (or "zipper") with 85% accuracy

**2:0-2:11 Language:**

1. Shows or points to familiar people, objects & body parts when asked (ex-clothing-shoes, shirt, pants)
2. Requests actions or objects ("mama fish"-asking for goldfish cracker) or "go home"
3. Labels actions or objects ("ball" or "boo" to play peek a boo or "ride" go in car)
4. Requests repetition (says "more" or "again")
5. Requests help (says "help" or tries to play and gives to mom and says, "ma!")
6. Answers yes or no
7. Uses a word to get attention ("mama!" or "look!" or "hey!")
8. Uses different word combinations (truck go, catch me, eat it, I go up, baby sit here, dis is mine, daddy ball)

Passing is 7/8

**2:0-2:5 Vowels, Child can miss 1-2**

feet fish kite hat/cap watch ball boy boat

**2:6-2:11 Add Mastered Consonants:**

Foot cup Moon Apple or Zipper

**3:0-3:5 refer if miss one**

Baby Dog House Night Cat Fish One (w)

**3:6-3:11 add - refer if miss one**

**Speech Clarity/Intelligibility:**

To Parents:	by 24 months, 50-75%;	by 36 months, 75-100%	
To Unfamiliar listeners:	2 years, 50%;	3 years, 75%;	4 years, 100%

**4:0-4:5 refer if miss**

Two CHair Jump Leaf Pig Sun Zebra

**4:6-4:11 refer if miss one**

BLocks QUeen PLane SPoon STar SWing SHEep Yelllow

**6:0-6:11, refer if miss one**

Van DRink GLass GRade CRayon TRee

**7:0-7:11, refer if miss one**

Ring BRead FRog PRess SLam THem/THose/THere

# In-Depth Screening Data

## ➤ Optional Language Tests

- language development in children 3 years or older

## ➤ Developmental Screening

- Age-appropriate screening for language development, motor skills and pre-academic or academic testing in math, reading and spelling, depending on age/grade of child

# Vision Protocol



Welch Allyn SpotVison  
Screener



Distance Acuity

## ➤ Younger Children

- ABC Check (Appearance, behavior, concerns)
- Spot Vision
- Functional
  - alternate cover, tracking, near point convergence

## ➤ Older Children

- ABC Check
- SpotVision (for private sites)
- Distance Acuity 3 y and up (letters/shapes)
- Stereodepth 4 y and up
- Plus Lens 6 y and up

\*No vision screenings 0-6 months

# Screening Admin & Coordination

- **Scheduling Sites and Staff Coverage**
- **Receive Student Lists a week ahead**
- **Database Import - Student Information**
- **Prepare equipment & screening lists**
- **Finalize reports to be sent to sites**



# Programmatic Considerations

- **Communication, meetings, & training with health/school staff**
- **Schedule up to a year out: Fall is busiest season**
- **Staffing needs vary throughout year**
- **Screening Costs**

# On-Site Screening Practical Considerations

- Screening lists -> how many students? Ages?
- On-Site Staff Support
- Functioning Equipment?
- Environment
  - noise, light, space
- Transitions/Queuing -
  - Infants/Toddlers - typically one or two at a time

# Take Home Messages

- **Effective Communication Key to Successful Screenings**
- **Digital entry improves administrative workflow**
- **Various factors in screening results**
  - Middle ear health, refusals
- **Children still getting lost to follow up?**

