



# **FOLLOW-UP IN THE MEDICAL HOME: FINDINGS FROM NEW YORK PRIMARY CARE PROVIDERS SURVEY**

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2011 Early Hearing Detection Intervention Conference

# EHDI PROGRAM COMPONENTS - NCHAM

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- Universal Newborn Hearing Screening
- **Medical Home**
- Diagnostic Audiology
- Early Intervention
- Family Support
- Tracking and Data Management



# THE MEDICAL HOME: A CONCEPT RATHER THAN A BUILDING

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- Accessible
- Family-centered
- Continuous
- Comprehensive
- Coordinated
- Compassionate
- Culturally Effective



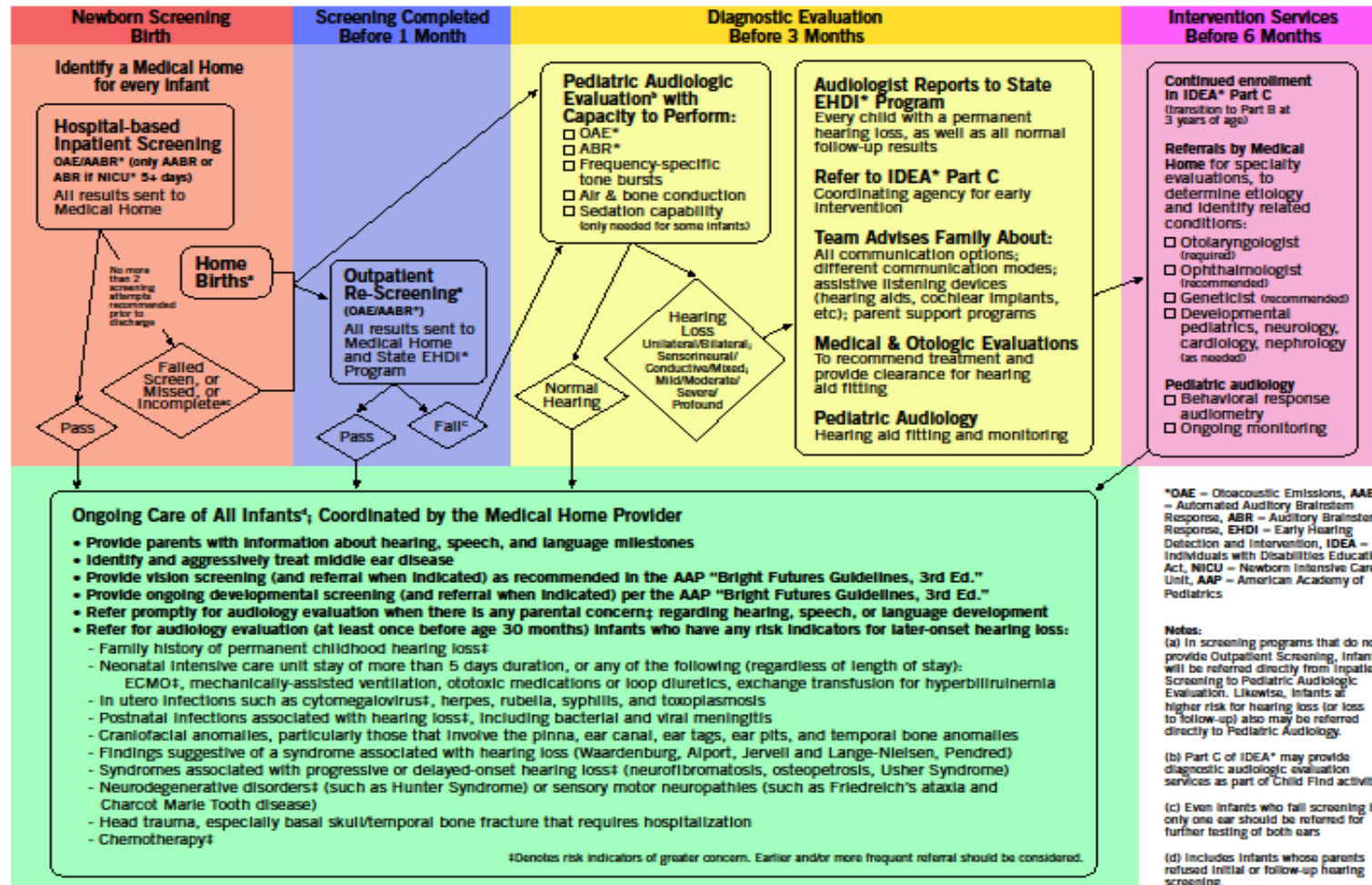
**NATIONAL CENTER FOR  
MEDICAL HOME  
IMPLEMENTATION**

A cooperative agreement between the Maternal and Child  
Health Bureau/HRSA and the American Academy of Pediatrics



# 1:3:6 ALGORITHM

## Early Hearing Detection and Intervention (EHDI) Guidelines for Pediatric Medical Home Providers



# CHALLENGES TO MEDICAL HOME

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- Low incidence of severe hearing loss
- Lack of physician education on all aspects
- Different terminology
- Success of UNHS – misconceptions
- Getting newborn results
- Retesting in office
- Family support
- Working with EI
- Working with community agencies
- Time constraints and financial constraints



## PURPOSE OF THE SURVEY

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- Identify what primary care providers (PCPs) do in their practices related to newborn hearing screening, follow-up and reducing loss to follow-up
- Identify PCPs attitudes and knowledge regarding newborn hearing screening
- Identify rescreening practices in the Medical Home
- Identify barriers and strategies for engaging PCPs in newborn hearing screening



## SURVEY DESIGN

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- Collaboration between EHDI and AAP
- Based on Pediatrics 2006 and DocSurvey questions from EHDI conference 2010 (CDC)
- “Primary Care Physicians' Knowledge, Attitudes, and Practices Related to Newborn Hearing Screening”, Moeller, White and Shisler. Pediatrics, 2006
- "Pediatric Primary Care Physicians' Practices Regarding Newborn Hearing Screening". Ross, Danielle. In press.



## SURVEY RESULTS

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- General questions (14)
- Specific questions for PCPs who stated that they conduct hearing screening in their office (4)
- Demographic questions (10)
- SurveyMonkey™
- Survey sent out by American Academy of Pediatrics (AAP) District II (New York) to AAP and American Academy of Family Practitioner members





# SURVEY RESULTS

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- 160 responses received
- 150 (94%) responded that they are currently practicing medicine with children under the age of 3 years
- Years of practicing with a pediatric population
  - Median- 21 years (n=128)
  - 0-5 years – 13%
  - 6-10 years – 9%
  - 11-20years – 26%
  - 20+ years – 52%
- Years since residency
  - Median- 21 years (n=127)



# SURVEY RESULTS

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## Type of Practice

- 88% Pediatrician
- .7% Family Practice Physician
- 3.6% Neonatologist
- 8% Resident

## Practice Setting

- 62% Private Practice
- 13% Hospital Setting
- 10 % Community Health Centers
- 6.5% Medical School or Parent University
- 8% Other



# RESULTS - DEMOGRAPHICS

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## Practice Type

- 10% Individual Practitioner
- 37% Group of 2-5 Practitioners
- 33 % Group of greater than 5 Practitioners
- 16% Health Care Center
- 4% Other

## Practice Location

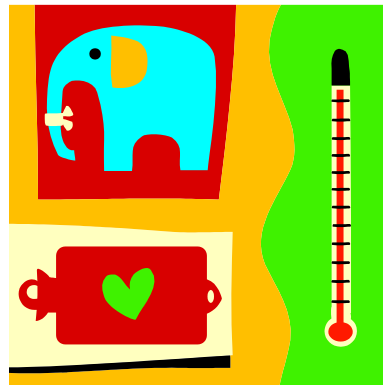
- 32% Urban (inner city)
- 19% Urban (not inner city)
- 6% Small Town
- 37 % Suburban
- 6 % Rural



## RESULTS - DEMOGRAPHICS

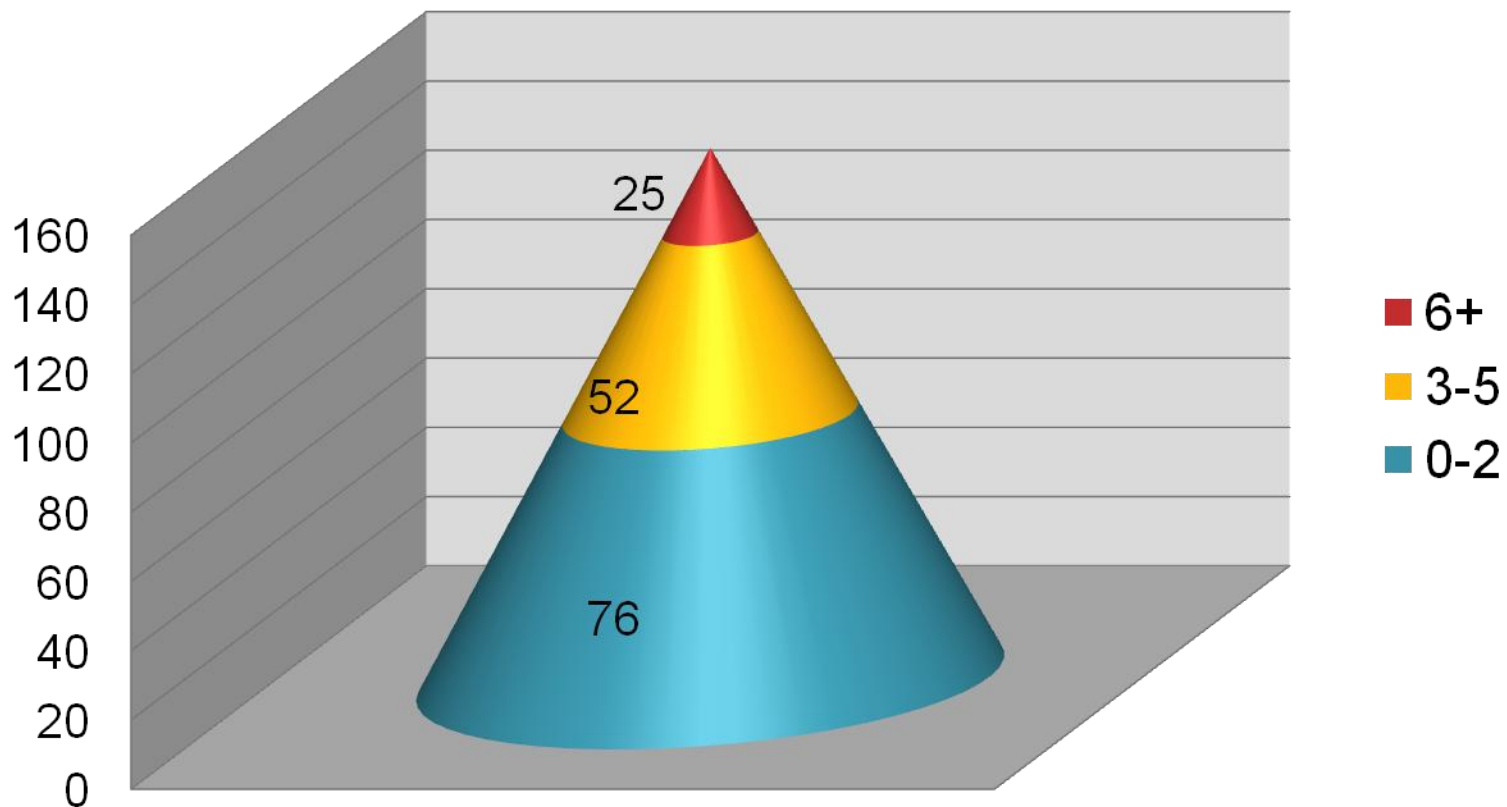
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- Each MD sees a median of 50 patients a week
- 50% (median) of children are under 5 years

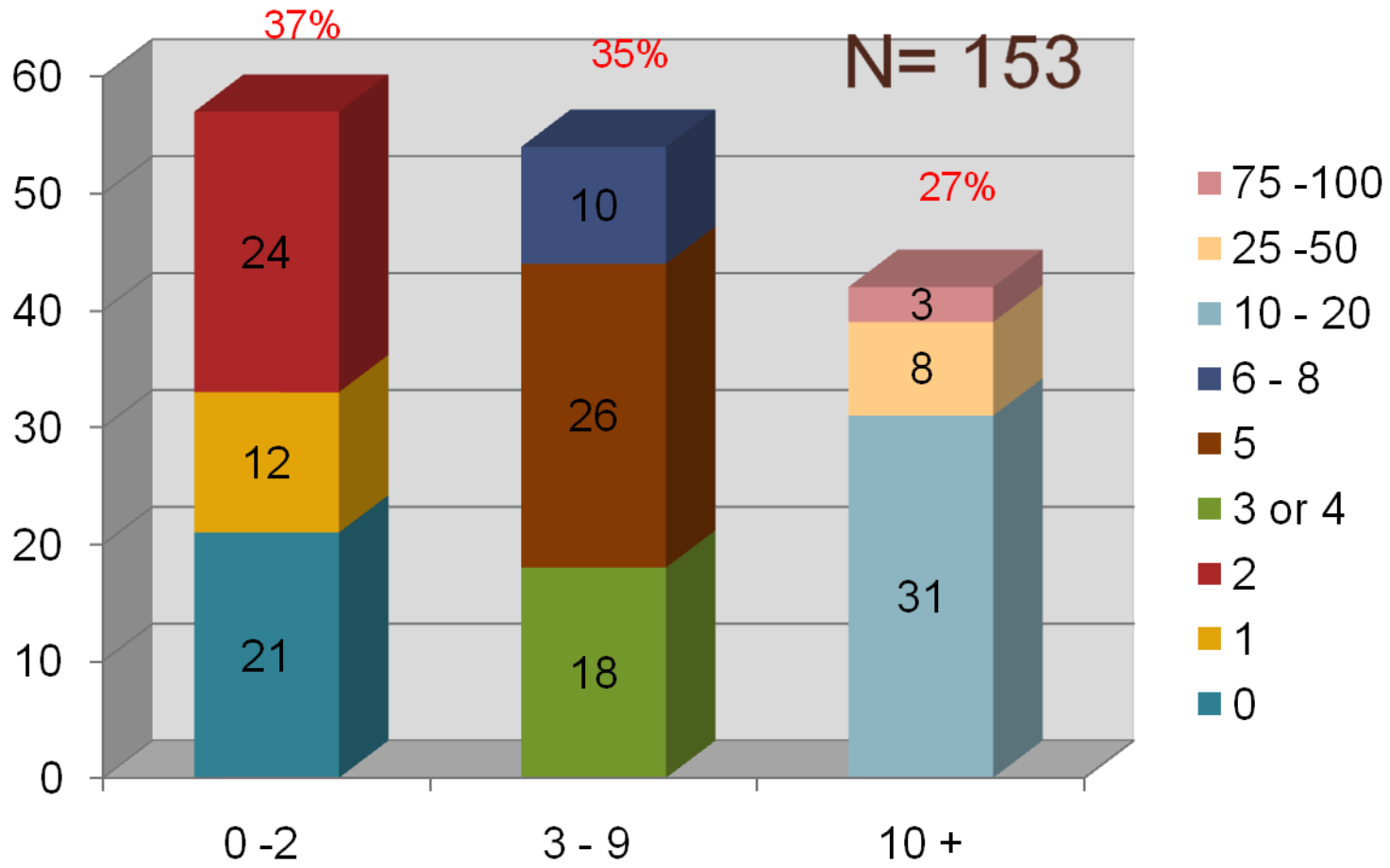


# Children with Hearing Loss in Past 3 Years

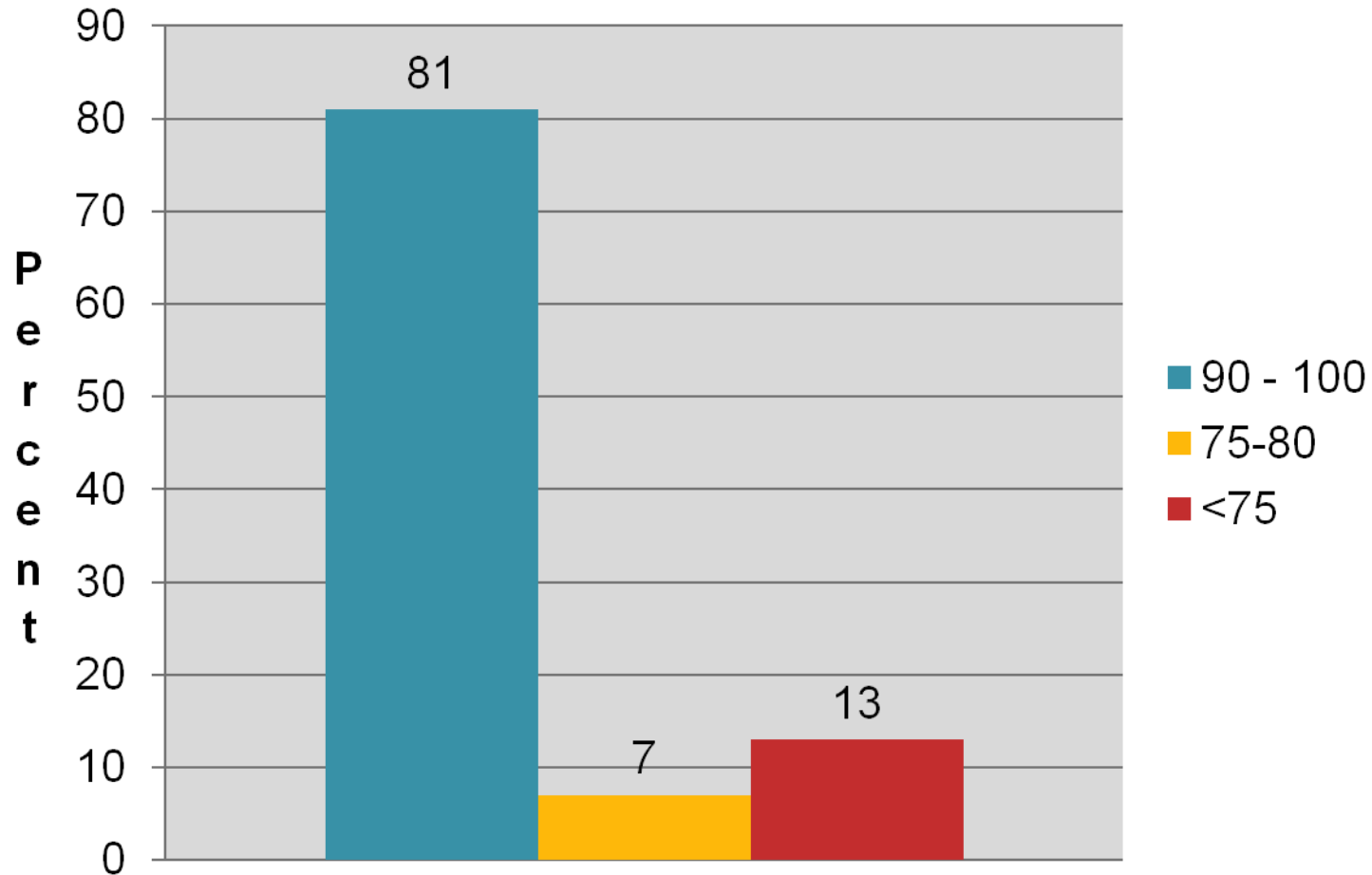
N = 152 children



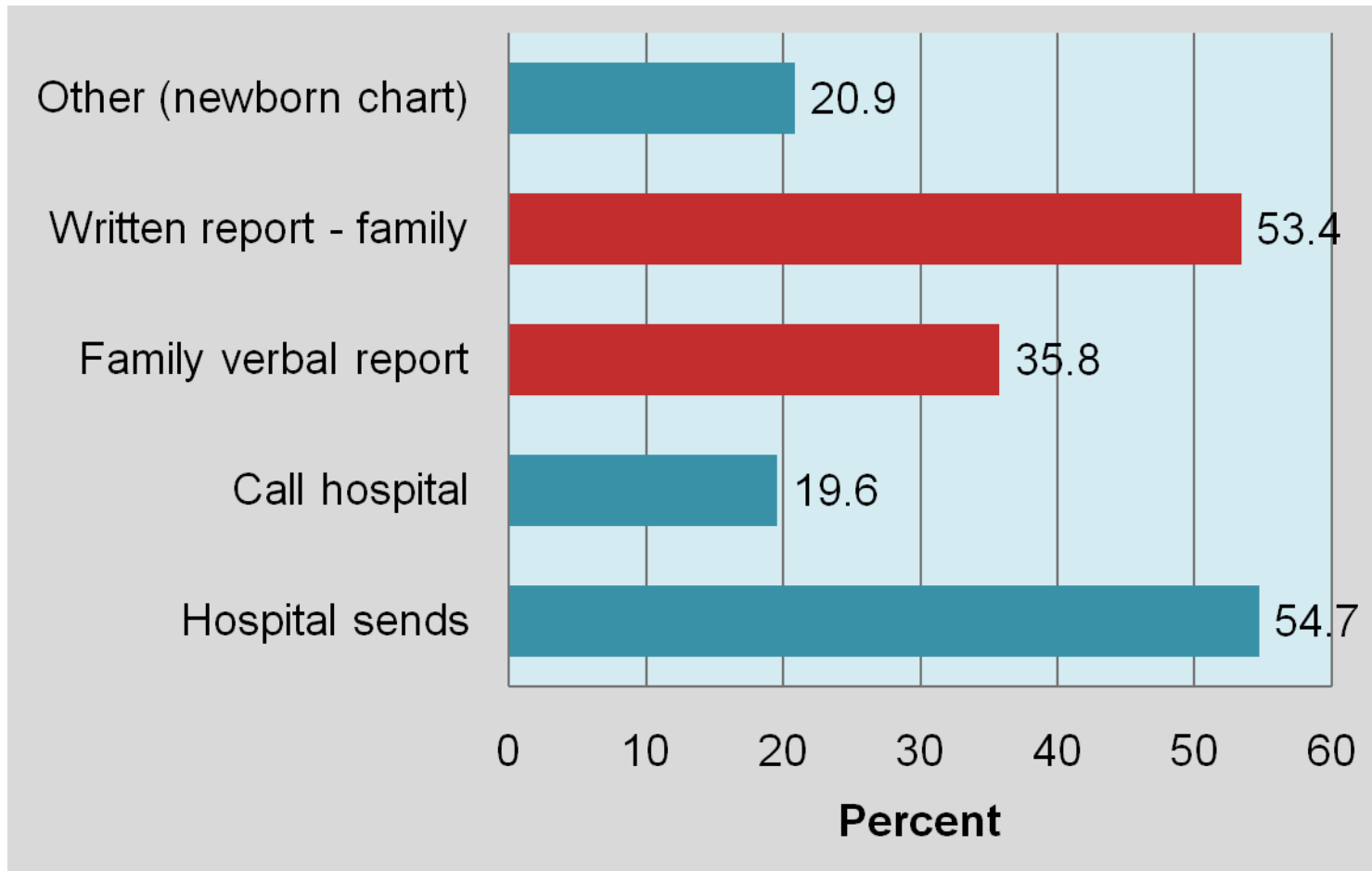
# FAILED HEARING SCREEN – PAST YEAR



# 20% OF MDS STILL RECEIVE RESULTS 80% OR LESS OF THE TIME

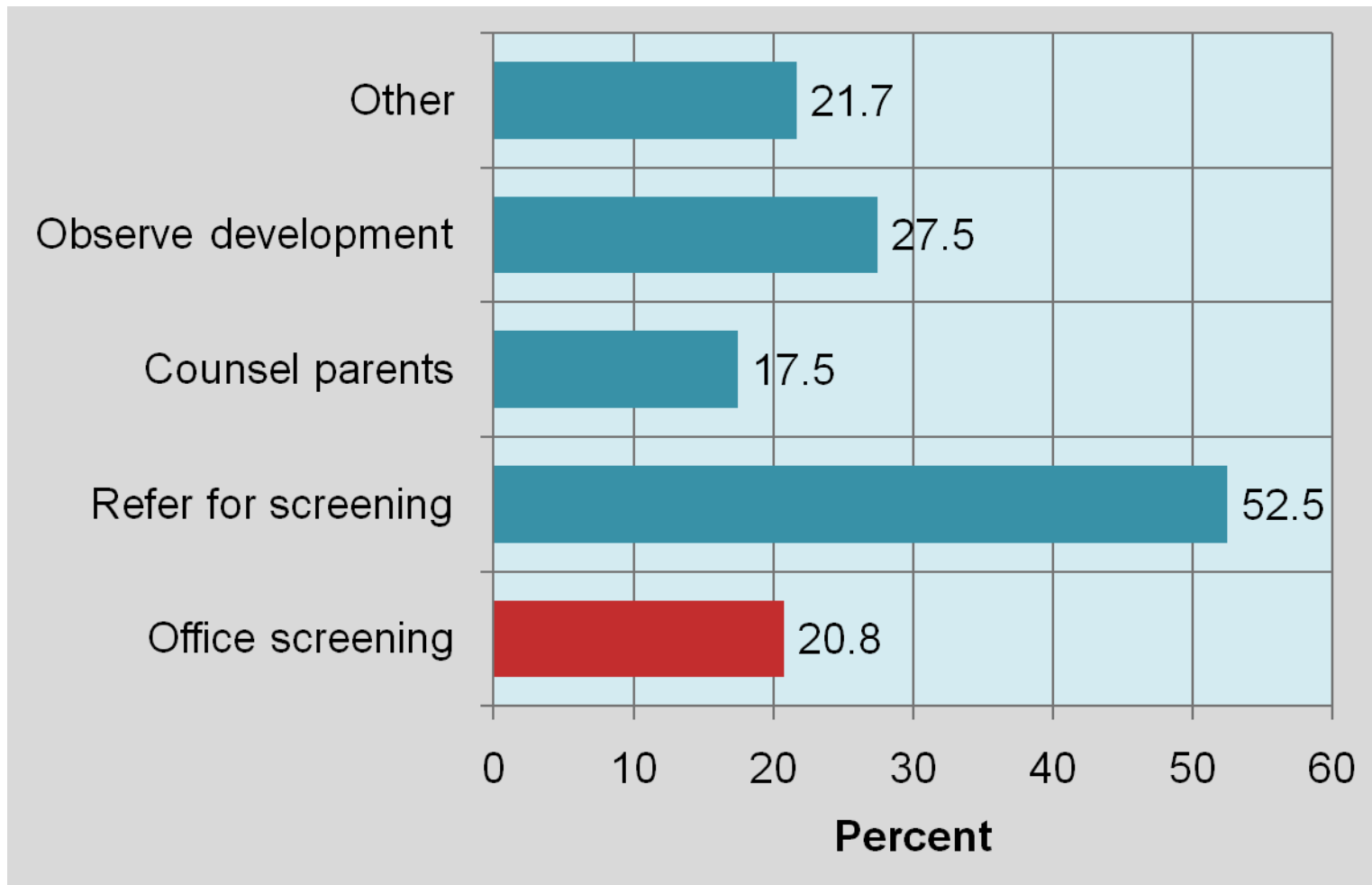


# HOW DO YOU GET RESULTS?

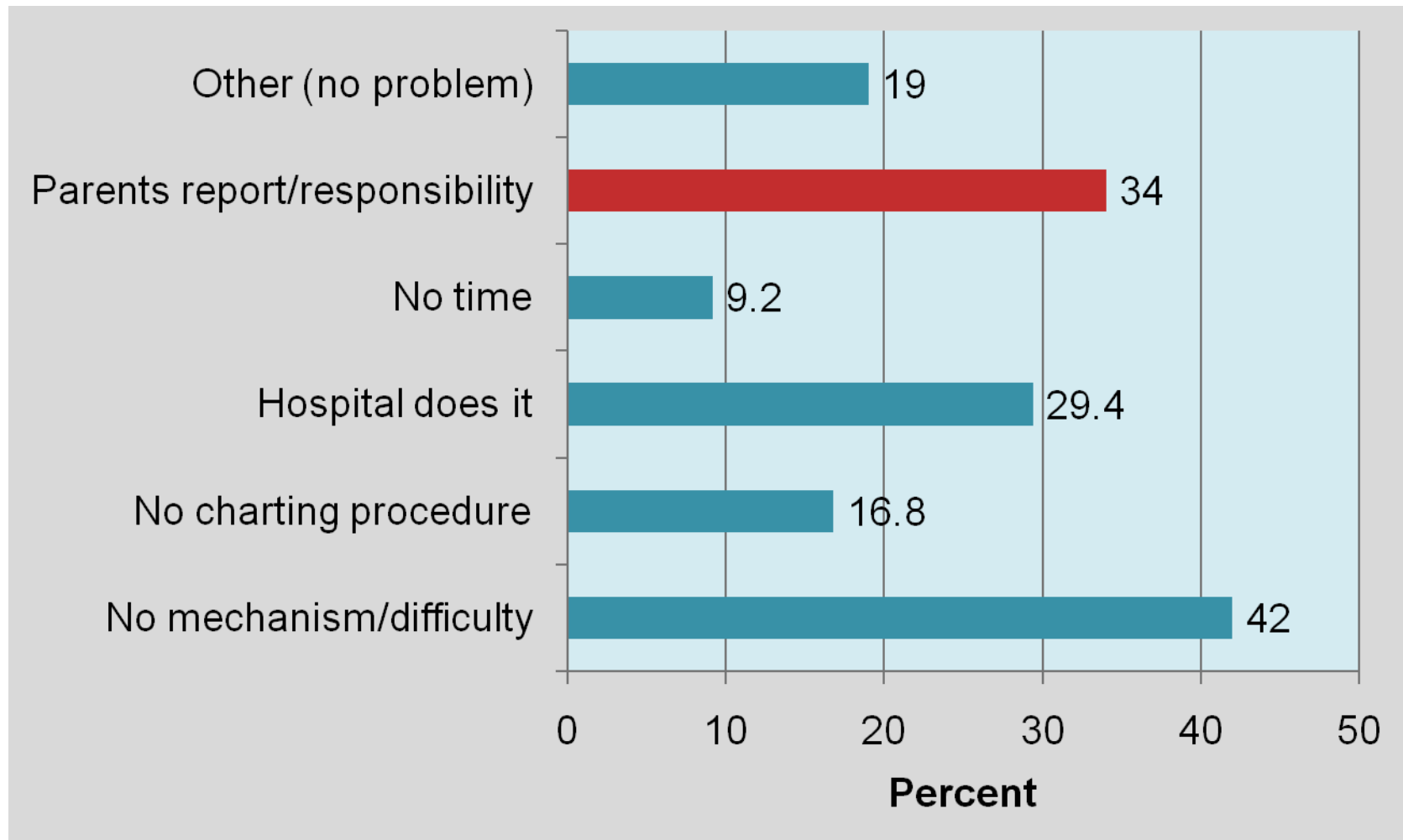




# IF YOU CAN'T GET RESULTS?



# CHALLENGES FACED IN CHECKING FOR RESULTS

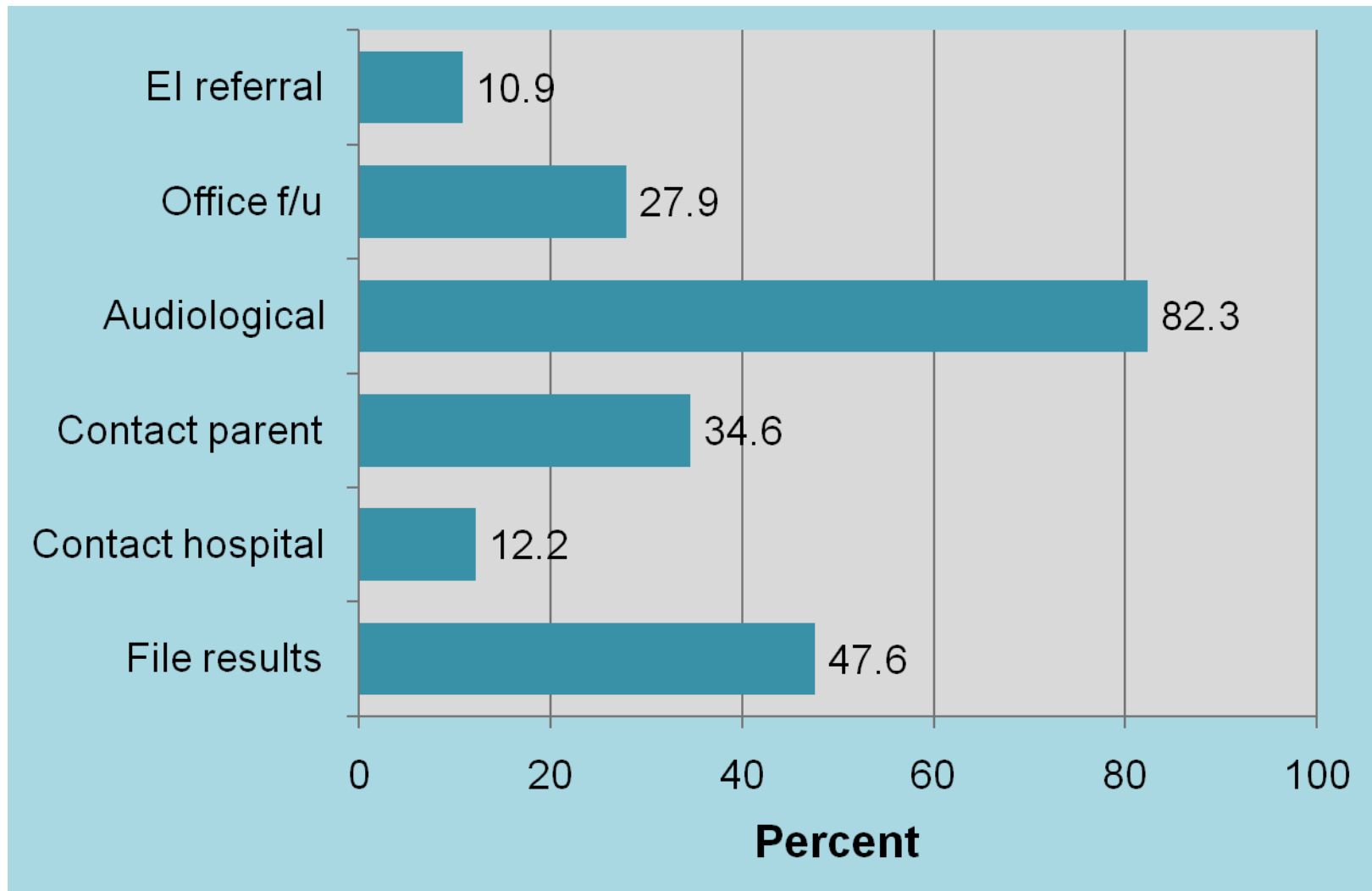


# WHAT PERCENT WHO FAIL GET RETESTED?

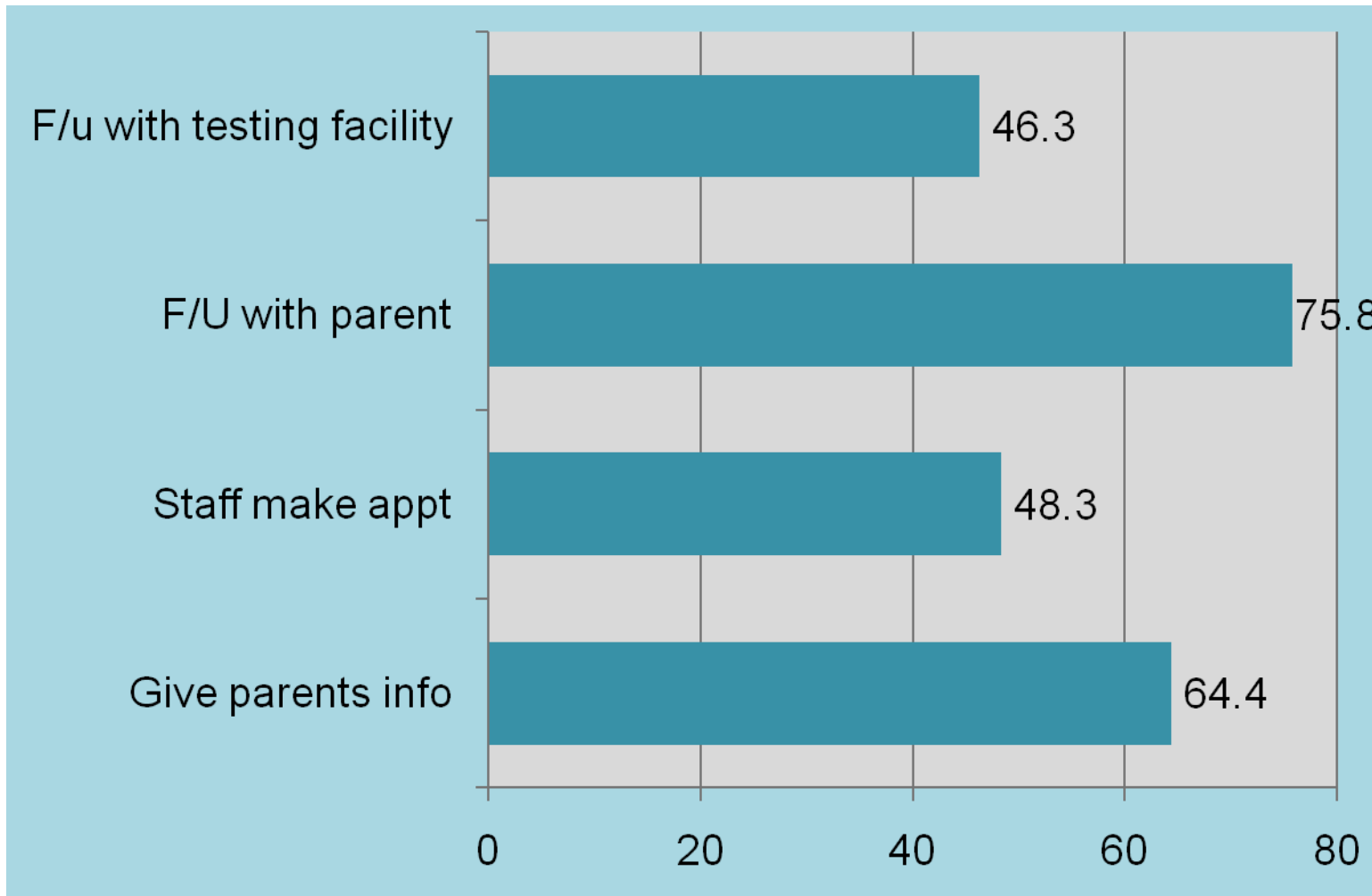
- N = 144
- 92% of MDs said 90% and above were retested
- 8% said 85% or less



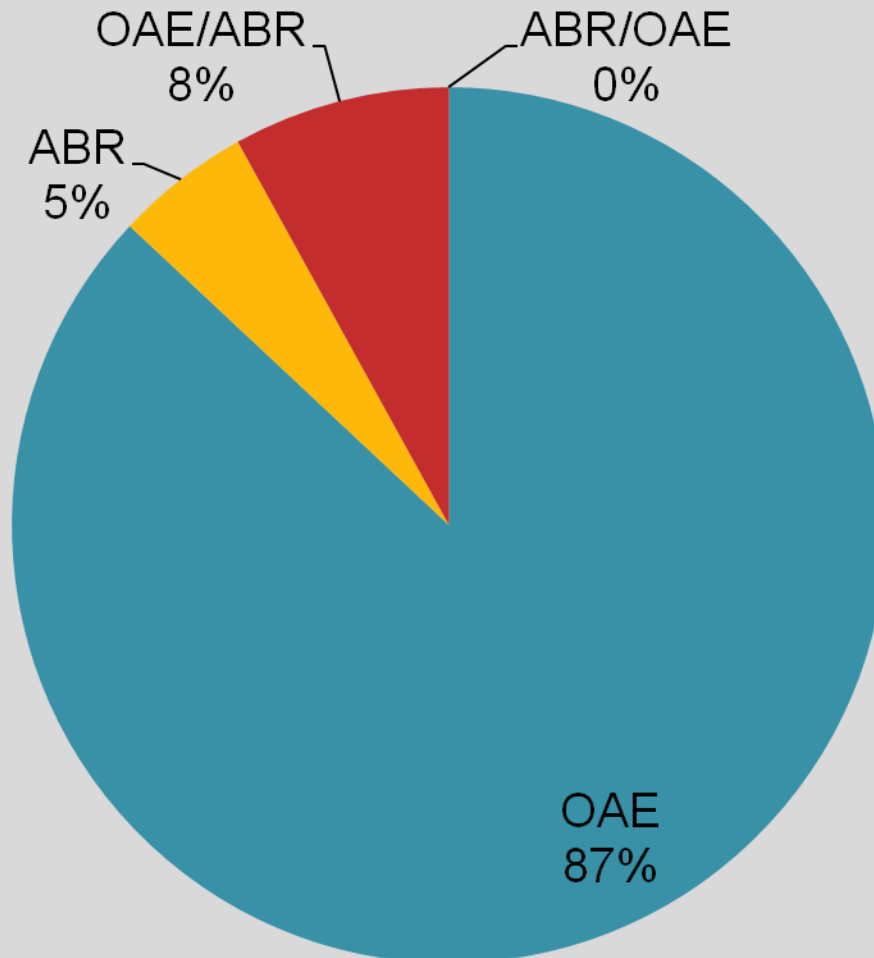
# FAILED SCREEN – WHAT DO YOU DO?



# AUDIOLOGICAL/RESCREENING AFTER FAILED NEWBORN SCREEN

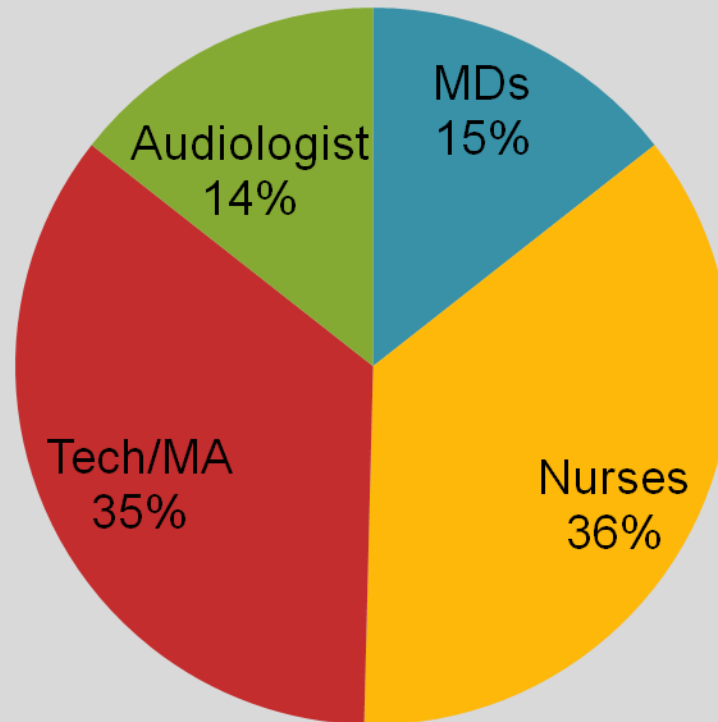


# 25% (38/150) OF MDs RESCREEN NEWBORNS IN OFFICE



About 50% of MDs are able to screen hearing in their offices

# WHO SCREENS?

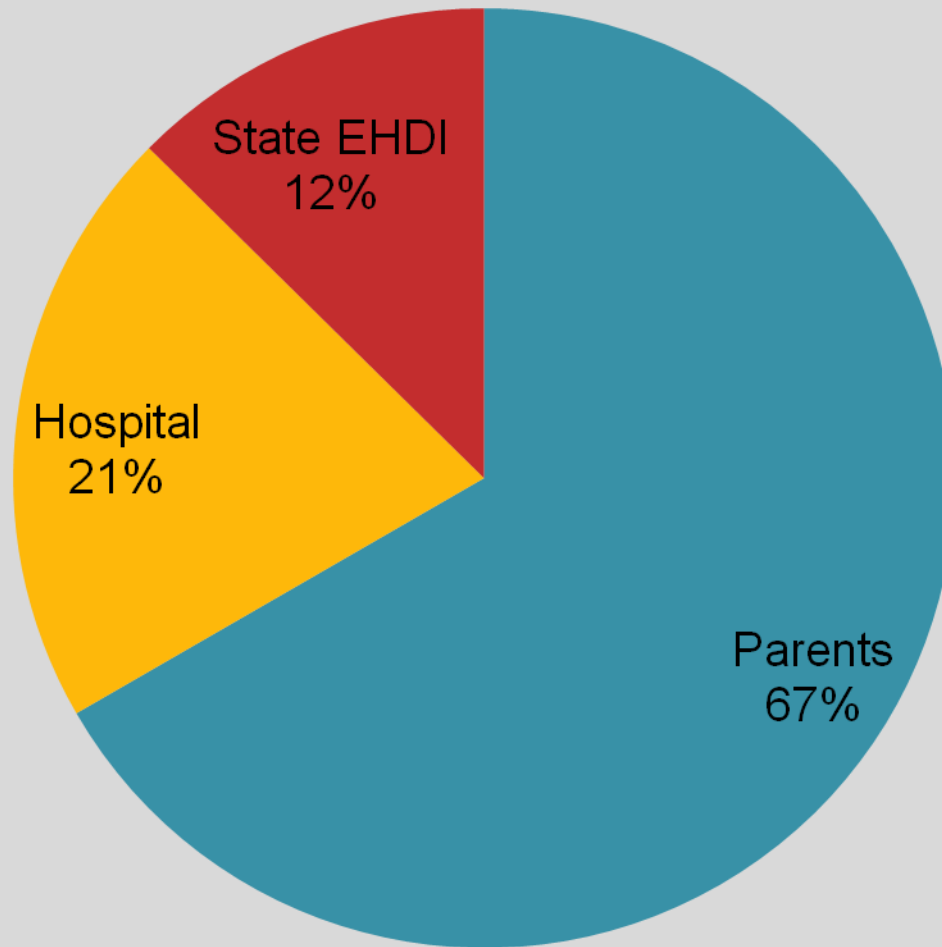


**26/28 responded that office rescreening contributed positively to quality of care!**



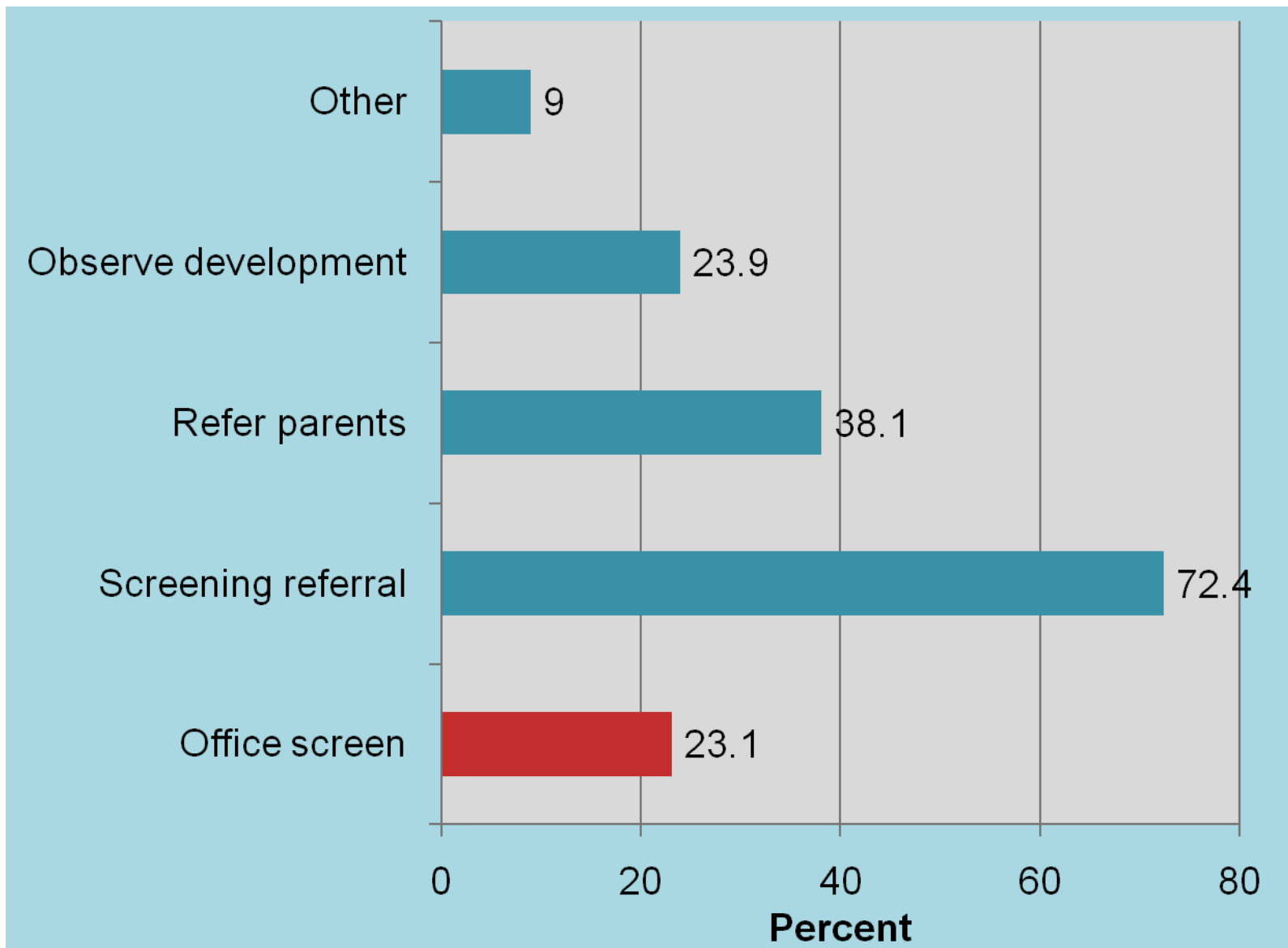
# TO WHOM DO YOU REPORT OFFICE RESCREENINGS?

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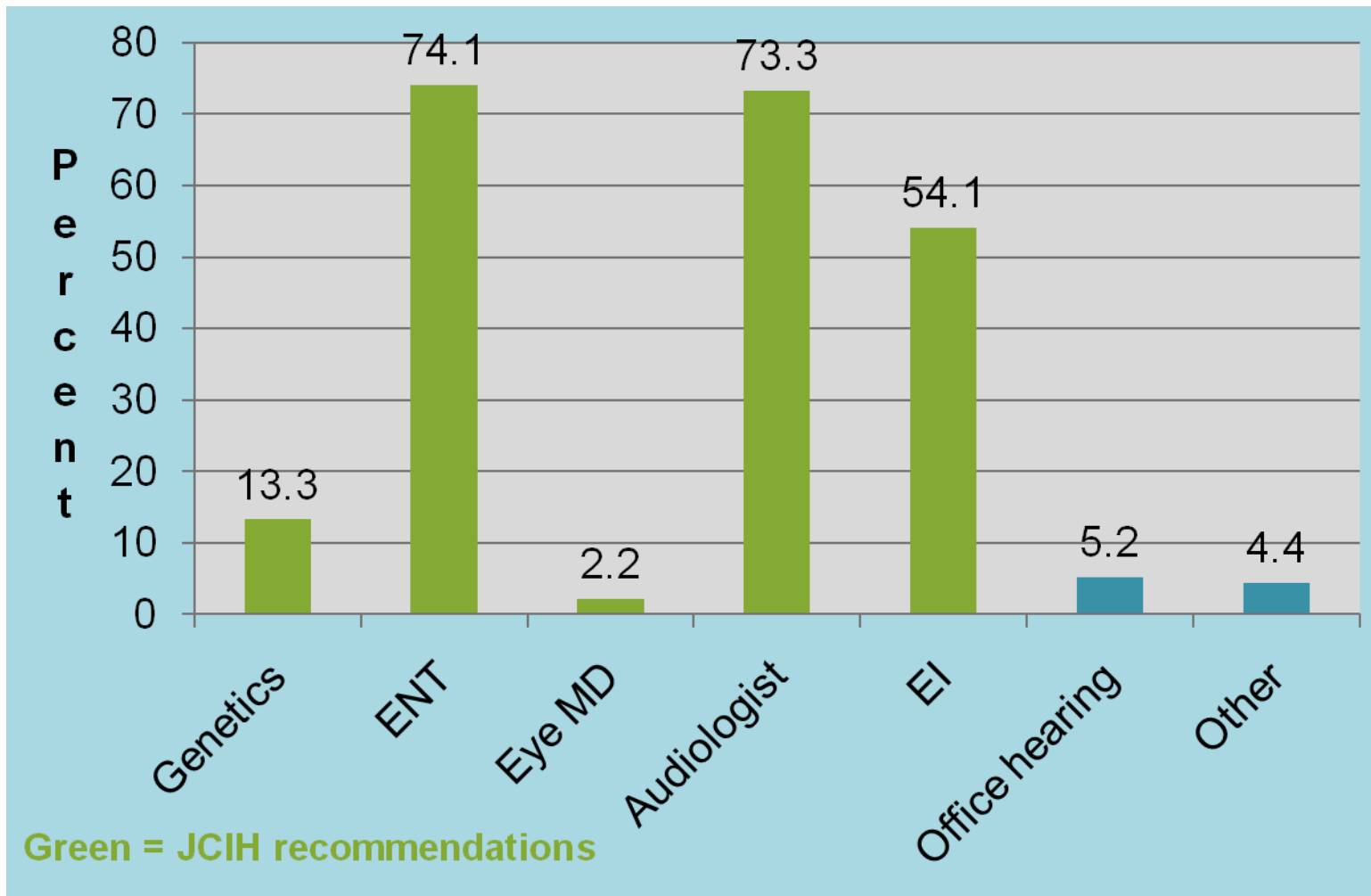




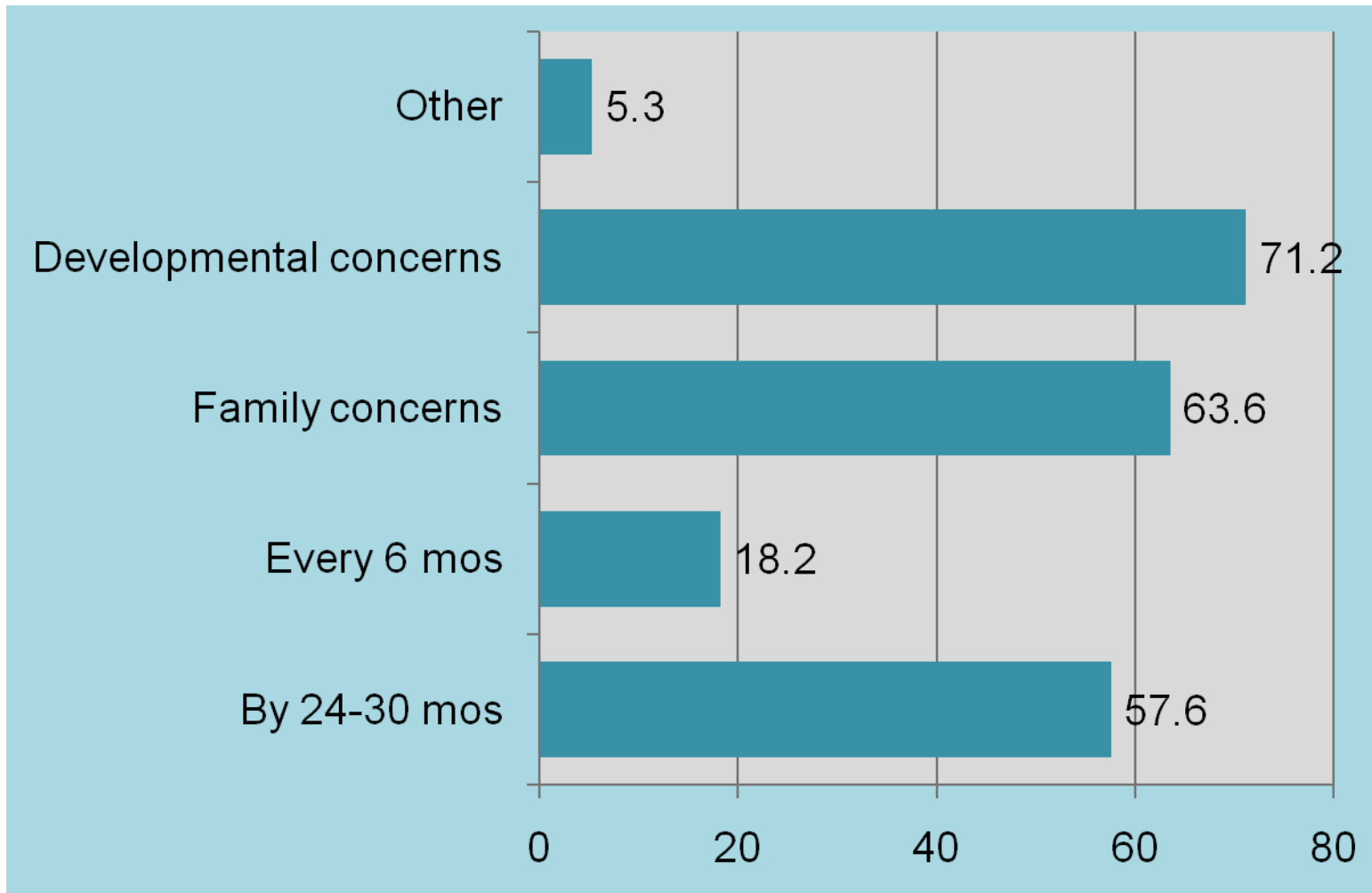
# IF NEWBORN DID NOT GET SCREENED?



# FAILED SCREEN AND RE-SCREEN - REFERRALS



# RISK FACTORS – WHEN TO REFER FOR AUDIOLOGICAL?



# AAP/JCIH RISK FACTORS FOR HEARING LOSS - 2007

**TABLE 3** American Academy of Pediatrics Joint Committee on Infant Hearing Year 2007 Position Statement<sup>2</sup>: Risk Indicators Associated With Permanent Congenital, Delayed-Onset, and/or Progressive Hearing Loss in Childhood

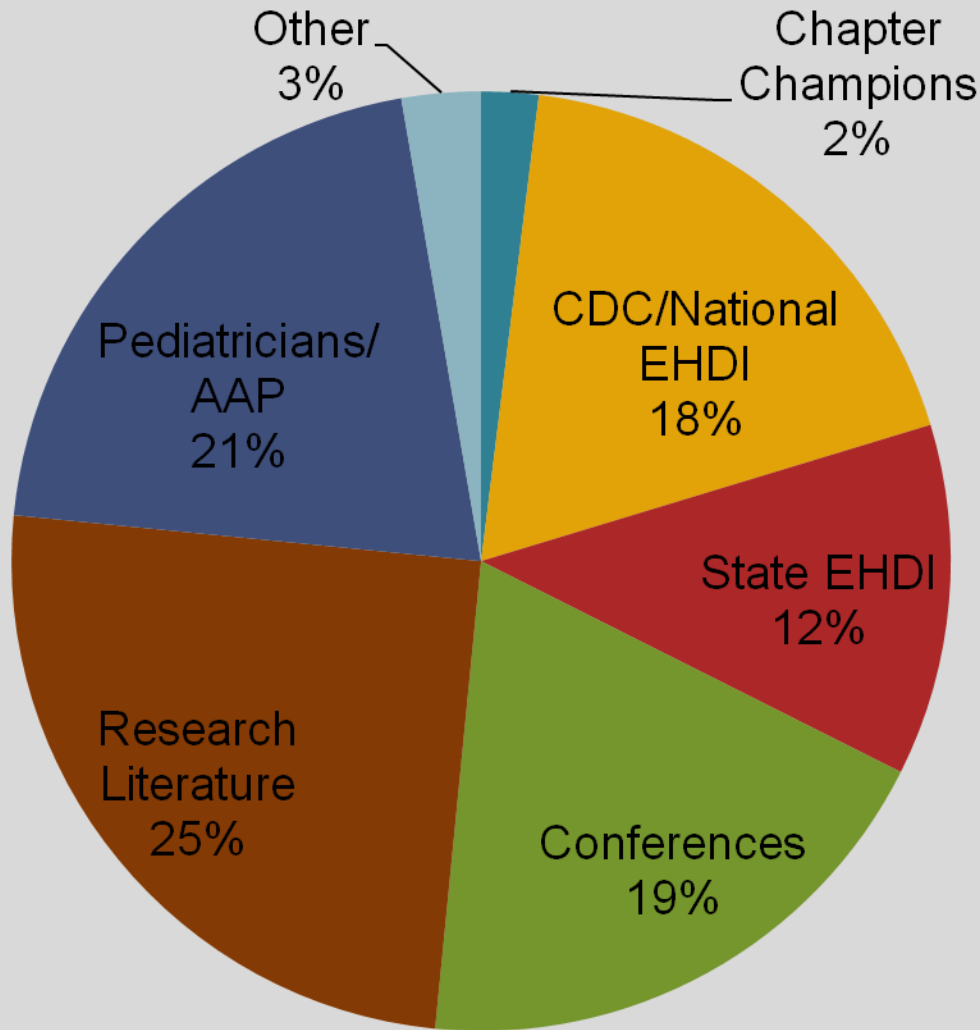
1	Caregiver concern* regarding hearing, speech, language, or developmental delay.
2	Family history* of permanent childhood hearing loss.
3	Neonatal intensive care of more than 5 days or any of the following regardless of length of stay: ECMO*, assisted ventilation, exposure to ototoxic medications (gentamicin and tobramycin) or loop diuretics (furosemide/Lasix), and hyperbilirubinemia <sup>19</sup> that requires exchange transfusion.
4	In utero infections such as CMV*, herpes, rubella, syphilis, and toxoplasmosis.
5	Craniofacial anomalies, including those that involve the pinna, ear canal, ear tags, ear pits, and temporal bone anomalies.
6	Physical findings, such as white forelock, that are associated with a syndrome known to include a sensorineural or permanent conductive hearing loss.
7	Syndromes associated with hearing loss or progressive or late-onset hearing loss*, such as neurofibromatosis, osteopetrosis, and Usher syndrome; other frequently identified syndromes include Waardenburg, Alport, Pendred, and Jervell and Lange-Nielson.
8	Neurodegenerative disorders*, such as Hunter syndrome, or sensory motor neuropathies, such as Friedreich ataxia and Charcot-Marie-Tooth syndrome.
9	Culture-positive postnatal infections associated with sensorineural hearing loss*, including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis.
10	Head trauma, especially basal skull/temporal bone fracture* that requires hospitalization.
11	Chemotherapy*.
12	Recurrent or persistent otitis media for at least 3 months.

Risk indicators that are marked with \* are of greater concern for delayed onset hearing loss. ECMO indicates extracorporeal membrane oxygenation; CMV, cytomegalovirus.

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# PRIMARY SOURCES OF INFORMATION



## SUMMARY

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- Office rescreening
- Lack of experience with HL and failed screens
- Parent/doctor relationship
- Parent responsibility
- Difficulty in obtaining results
- MD knowledge
- How to reach the Medical Home?



## CONTINUE PARTNERSHIP BETWEEN AAP DISTRICT II AND NYS DOH EHDI PROGRAM

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- Develop a strategic plan to increase adherence to newborn screening regulations
- Begin communication to stimulate sustainable regional efforts to support increased adherence to the AAP recommendations for infants with hearing loss within a medical setting
- On-line survey to determine the best way for pediatricians to learn more about newborn hearing



## CONTINUE PARTNERSHIP BETWEEN AAP AND DISTRICT II AND NYS DOH EHDI PROGRAM

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- Conduct focused advisory group meetings of regional pediatric providers to determine methods of training would be best for pediatricians

