

Newborn & Infant Hearing Screening Survey Overall Results

Frequencies

n=1,968

Q1. Approximately what percentage of <u>your</u> practice is comprised of infants or children 0-5 years of age? 39.3 / 35.0% (Mean/Median)
Q2. Approximately how many children with permanent hearing loss (EXCLUDING otitis media) have you had in your practice during the past three years? 3.13 / 2.00 (Mean/Median)
Q3. How important do you think it is to screen all newborns for permanent hearing loss? 81.7% Very important 13.9% Somewhat important 0.6% Unsure 2.4% Somewhat unimportant 1.5% Very unimportant
Q4. For newborns in your practice during the past year, estimate the percentage for which you received initial newborn hearing screening results. 82.47 / 99.00% (Mean/Median)
Q5. Do you think hearing screening causes parents excessive anxiety and/or concern? 8.4% Yes 7.0% Unsure 84.6% No
Q6. Estimate the approximate cost per baby for newborn hearing screening in your state. 64.3% ≤\$30 17.6% \$30-\$60 4.1% \$60-\$100 14.0% >\$100
Q7. Do you believe that universal newborn hearing screening is worth what it costs? 75.7% Yes 18.7% Unsure 5.6% No
Q8. How confident are you that you could explain the newborn hearing screening process to parents who have questions about their infants' results? 48.0% Very confident 41.1% Somewhat confident 1.3% Unsure 9.7% Not Confident

Q9. What is your best estimate of the earliest age at which:						
≤1 mo	1-3 mos	3-6 mos	6-9 mos	9-12 mos	≥12 mos	
75.7%	11.7%	7.1%	4.2%	0.1%	1.2%	a. A newborn not passing the hearing screening should receive additional testing
51.9%	10.8%	12.4%	15.3%	0.3%	9.3%	b. A child can be definitively diagnosed as having a permanent hearing loss
38.3%	9.0%	11.2%	22.2%	1.2%	18.1%	c. A child can begin wearing hearing aids
61.6%	8.0%	9.9%	13.1%	0.4%	7.0%	d. A child with permanent hearing loss should be referred to early intervention services
Q10. List any specialists to whom you would routinely refer the family of a child with a confirmed permanent hearing loss (list the types of specialists):						
75.6% ENT/Otolaryngology*					41.2% Audiologist	
1.9 % Pediatrician					0.6% School for the Deaf	
0.1% Primary Care Physician					22.9% Speech Language Pathologist	
11.4% Child Development Specialist/Early Intervention					7.0% Neurologist	
0.7% Social Worker					2.2% Occupational Therapist	
8.8% Geneticist*					0.9% Ophthalmologist*	
					1.5% Other	
Q11. Which of the following conditions put a child at risk for permanent late onset hearing loss? (check all that apply)						
94.1% *meningitis	49.2% * >48 hrs in NICU	21.3% congenital heart disease	88.5% *family history of childhood hearing loss			
22.0% frequent colds	63.8% *cleft palate	80.9% *history of cytomegalovirus				
27.6% hypotonia	16.8% mother over age 40	64.0% *congenital syphilis				
Q12. Which of the following infants may be a candidate for cochlear implants? (check all that apply)						
15.5% infant with bilateral mild-moderate hearing loss						
74.3% *infant with profound bilateral hearing loss						
5.9 % infant with unilateral mild-moderate hearing loss						
26.2% infant with unilateral profound hearing loss						
27.1% unsure						

Q13. Thinking about the physicians you know and work with, how informed do you think most of them are about issues related to permanent hearing loss?

Very Informed	Somewhat Informed	Somewhat Uninformed	Uninformed	
15.1%	61.3%	20.0%	3.6%	a. The incidence of hearing loss among newborns/ infants
29.9%	54.1%	13.7%	2.3%	b. Procedures for newborn/infant hearing screening
21.5%	57.7%	18.4%	2.3%	c. Consequences of unilateral or mild hearing loss
34.3%	52.3%	11.8%	1.5%	d. Consequences of bilateral severe or profound hearing loss
10.3%	49.3%	34.7%	5.7%	e. Medical interventions (e.g., cochlear implants)
15.4%	55.4%	26.1%	3.1%	f. Audiological interventions (e.g., hearing aids)
13.3%	51.6%	31.8%	3.3%	g. Educational interventions for hearing loss
9.0%	47.7%	36.7%	6.6%	h. Genetics of hearing loss
7.8%	40.0%	41.7%	10.5%	i. Family-to-family support services

Q 14. Did your training prepare you adequately to meet the needs of infants with permanent hearing loss?

18.0% Yes

14.2% Unsure

67.8% No

Q 15. What has been your primary source of information about newborn hearing screening?

0.6% None	2.1% Internet
16.0% Hospital Program	10.0% State EHDI Programs
3.0% Grand Rounds	13.1% Educational Meetings
37.9% Literature	4.4% On the Job Training
5.0% Audiologist	5.7% Other Physicians

Q 16. For each item below, please indicate the level of need you believe physicians have for that type of information related to permanent hearing loss in children.

Great need	Somewhat of a need	No need	
38.7%	56.2%	5.1%	a. Methods of screening
65.7%	31.3%	2.9%	b. Protocol for follow-up of screening
52.4%	43.6%	4.0%	c. Methods of screening children 0-5 during well-child visits
41.0%	51.3%	7.7%	d. Guidelines for informing families about screening results
53.8%	43.9%	2.3%	e. Impact of different degrees of hearing loss on infant language
62.5%	34.8%	2.7%	f. Early intervention options
57.2%	40.1%	2.7%	g. Guidelines for screening for late onset hearing loss
58.4%	40.1%	1.5%	h. Useful contacts for more information
54.7%	43.9%	1.4%	i. Patient education resources
46.9%	50.5%	2.6%	j. Hearing aids and cochlear implants
43.7%	54.5%	1.8%	k. Genetics and hearing loss
0.0%	0.0%	0.0%	l. Other (describe)

Q17. How confident are you in talking to parents of a child with permanent hearing loss about....?

Very confident	Somewhat confident	Unsure	Not confident	
14.5%	64.2%	0.4%	20.9%	a. Causes of hearing loss
7.2%	35.0%	1.1%	56.7%	b. Use of sign language vs. auditory/oral communication
14.4%	58.6%	0.9%	26.1%	c. Consequences of unilateral or mild hearing loss
16.5%	49.7%	0.9%	32.9%	d. Consequences of bilateral hearing loss of moderate to profound degrees
6.3%	28.0%	2.9%	62.7%	e. Which infants may be candidates for cochlear implants

Q18. How helpful would the following types of materials be to you in your practice?

Very Helpful	Somewhat helpful	Not helpful	
41.0%	43.5%	15.6%	a. Grand rounds material that can be downloaded and personalized
60.3%	29.2%	10.5%	b. Laminated cards with clear protocol steps
33.8%	45.4%	20.8%	c. CDs or DVDs to use in patient education
55.3%	36.7%	8.0%	d. Web site that is frequently updated with information for physicians
59.3%	34.8%	5.9%	e. Brochures to use in patient education
29.4%	45.8%	24.8%	f. Videotapes to use in patient education
44.5%	43.2%	12.3%	g. On-line CME course dealing with newborn hearing screening and hearing loss
0.0%	0.0%	0.0%	h. Other (describe)

Q19. How frequently do you use the internet to access information about medical topics?

51.7% Frequently
 32.3% Sometimes
 12.9% Rarely
 3.1% Never

Q20. Please list any professional medical organizations that have published policy statements about newborn hearing screening:	
56.8% AAP	1.9% American Academy of Otolaryngologists
6.6% AAFP	1.1% State
0.3% AMA	0.5% CDC
0.7% USPSTF	
Q21. Does your state have a universal newborn hearing screening program?	
86.0% Yes	
3.7% Unsure	
10.2% No	
Q22. Please list below any other concerns you have about newborn hearing screening, diagnosis, and intervention:	
0.2% Too complicated	0.8% Need more parent education
1.5% Need training	0.1% Better equipment
1.8% Cost outweighs benefits	0.4% Funding
2.3% Too many false positives	0.6% Testing inconclusive/No need
0.4% Not sure of procedure	1.6% Loss to follow-up
Type of practice:	
60.3% Pediatrician	3.0% Otolaryngologist
0.5% OB/GYN	0.3% Internal Medicine Specialist
27.8% Family Practice Physician	1.8% Resident in _____
2.8% Neonatologist	3.6% Other (specify) _____
Practice setting: (where you spend most of your time):	
78.2% Private practice or community clinic	
10.8% Hospital setting	
6.1% Medical school or parent university	
1.0% Military hospital clinic	
0.3% Public Health	
3.6% Other (specify) _____	
Practice Location:	
62.5% Metropolitan area 24.1% Small town 13.3% Rural area	
Gender:	
53.2% M 46.8% F	
Year of birth:	
2.6% under 30 years	
31.1% 30 – 40 years	
28.3% 40 – 50 years	
26.0% 50 – 60 years	
12.0% 60+ years	

Years of practice with pediatric population:**40.2%** 0-10 years**28.5%** 11-20 years**22.5%** 21-30 years**8.7%** 31+ years**Examples of Cross Tabulations**

Table 1

Type of Physician	Specialists to whom referral would be made (Q10)					
	ENT	Geneticist	Speech Language	Neonatologist	Occupational Therapy	Ophthalmologist
Pediatrician (n=1153)	81.7%	10.7%	28.5%	6.6%	2.7%	1.0%
Family Practice (n=532)	73.2%	2.6%	13.3%	6.6%	1.1%	0.0%
Neonatologist (n=53)	60.4%	13.2%	18.9%	5.7%	5.7%	0.0%
ENT (n=58)	53.4%	22.4%	13.8%	12.1%	1.7%	6.9%
Resident (n=34)	73.5%	14.7%	23.5%	23.5%	2.9%	0.0%

Table 2

Type of Physician	Age at which hearing loss can be diagnosed (Q9b)				
	<=1 mo	2-3mos	4-6mos	7-11mos	12+mos
Pediatrician (n=1153)	54.7%	19.2%	19.9%	0.3%	6.0%
Family Practice (n=532)	46.6%	19.9%	18.6%	0.6%	14.3%
Neonatologist (n=53)	41.5%	28.3%	20.8%	3.8%	5.7%
ENT (n=58)	31.0%	20.7%	24.1%	0.0%	24.1%
Resident (n=34)	38.2%	17.6%	14.7%	2.9%	26.5%

Table 3

Type of Physician	Age at which hearing aids can be fit (Q9c)				
	<=1 mo	2-3mos	4-6mos	7-11mos	12+mos
Pediatrician (n=1153)	36.6%	16.8%	28.8%	2.1%	15.7%
Family Practice (n=532)	38.3%	15.6%	23.1%	0.9%	22.0%
Neonatologist (n=53)	28.3%	20.8%	34.0%	0.0%	17.0%
ENT (n=58)	27.6%	15.5%	20.7%	1.7%	34.5%
Resident (n=34)	26.5%	14.7%	23.5%	5.9%	29.4%

Table 4

Type of Practice	% correct identification of risk factors (Q11)									
	Meningitis	Frequent colds	Hypotonia	48 hrs in NICU	Cleft palate	Mother over 40	Congenital heart disease	CMV	Congenital syphilis	Family history
Pediatrician (n=1153)	99.0%	81.7%	73.5%	47.9%	69.5%	86.6%	79.8%	87.6%	64.1%	93.3%
Family Practice (n=532)	96.9%	66.3%	69.2%	58.2%	62.8%	75.3%	76.7%	78.3%	71.3%	90.3%
Neonatologist (n=53)	100%	53.8%	40.4%	51.9%	75.0%	82.7%	55.8%	96.2%	63.5%	98.1%
ENT (n=58)	100%	89.3%	67.9%	66.1%	48.2%	62.5%	55.4%	83.9%	91.1%	96.4%
Resident (n=34)	100%	82.4%	82.4%	35.3%	50.0%	79.4%	85.3%	82.4%	70.6%	91.2%

Table 5

Years of Practice	Specialists to whom referral would be made (Q10)					
	ENT	Geneticist	Speech Language	Neonatologist	Occupational Therapy	Ophthalmologist
0-10 years (n=699)	82.7%	8.0%	30.2%	8.9%	4.1%	1.1%
11-20 years (n=496)	77.8%	11.7%	21.0%	7.1%	1.0%	0.8%
21-30 years (n=391)	77.7%	11.0%	19.7%	5.4%	1.3%	0.8%
30+ years (n=152)	65.1%	2.0%	15.1%	5.3%	0.7%	0.7%

Table 6

Years of Practice	Age at which hearing loss can be diagnosed (Q9b)				
	<1 mo	2-3mos	4-6mos	7-11mos	12+mos
0-10 years (n=699)	46.6%	18.5%	23.32%	0.1%	11.6%
11-20 years (n=496)	51.0%	21.4%	19.2%	0.2%	8.3%
21-30 years (n=391)	55.2%	22.5%	15.6%	0.5%	6.1%
30+ years (n=152)	53.9%	13.8%	21.7%	0.7%	9.9%

Table 7

Years of Practice	Age at which hearing loss can be fit (Q9c)				
	<1 mo	2-3mos	4-6mos	7-11mos	12+mos
0-10 years (n=699)	31.8%	15.3%	29.2%	1.3%	22.5%
11-20 years (n=496)	34.5%	17.3%	29.0%	1.8%	17.3%
21-30 years (n=391)	40.2%	18.2%	24.6%	2.3%	14.8%
30+ years (n=152)	44.7%	12.5%	22.4%	2.0%	18.4%

Table 8

Years of Practice	Frequency of using the internet (Q19)			
	Frequently	Sometime	Rarely	Never
0-10 years (n=699)	60.8%	30.2%	8.5%	0.6%
11-20 years (n=496)	47.0%	35.6%	14.4%	3.0%
21-30 years (n=391)	47.0%	32.9%	16.4%	3.7%
30+ years (n=152)	34.0%	32.0%	22.4%	11.6%