



## *INFANT HEARING NEWS*

### Focus on *COMMUNICATION!*

In this edition of the newsletter, we are turning our attention towards communication...that is, communication between parents and providers. One of the main reasons why babies fall through the cracks is the lack of effective communication regarding hearing screening. How can you help? Keep reading!

#### *Did you know...*

...that for 2005\*

- **71,286** babies were born in Maryland
- **64,956** babies were screened for hearing loss (91.1%)
- **2,944** babies did not pass the initial hearing screening in the hospital (4.5%)
- **558** babies failed the level 2 screening
- Of those that did not pass, **204** babies received a diagnostic test (36.6%)
- **89** babies were identified with hearing loss (0.12% of total population)
- **4,896 (6.8%)** babies were lost to follow up

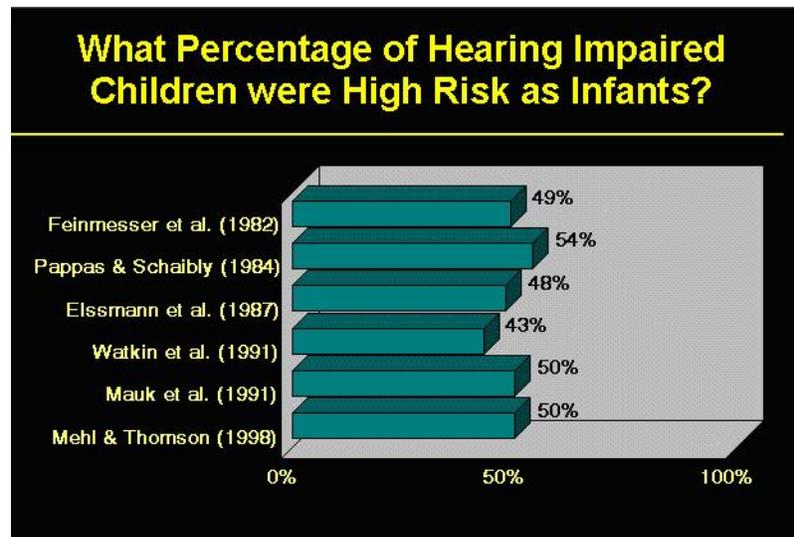
\*Represents data reported to the Maryland DHMH Infant Hearing Program

Currently, more than 90% of all babies born in Maryland receive a hearing screening before discharge. The number of babies screened is up from the previous year, but many either do not return for follow-up or do not receive follow-up in a timely manner. How does this happen? Consider the potential number of parties involved in follow-up hearing care: Nursery staff, Hearing Technicians, Cardio-Pulmonary/EEG staff, Pediatricians, Audiologists,

Otolaryngologists, the Department of Health and Mental Hygiene, Insurance carriers (Private or Medicaid), etc. In many cases, the family is required to go to three different clinics for proper follow-up care!

Communicating hearing screening results to the family is an important component of the screening process. At some sites, routine systems may not have been established to ensure that parents understand the results of the hearing screening, the implications, and what the next step is. Additionally, the importance of follow-up testing is often minimized by the messages that are communicated to families,

such as “Don’t worry, this happens all the time. Your baby is probably fine,” or “It might just be a problem with the equipment.” These kinds of statements may reduce the likelihood that families will return for a follow-up screening. Remember that most babies with congenital



hearing loss are born to normal-hearing parents and only half of all babies diagnosed with permanent hearing loss have associated risk factors!<sup>1</sup> The way that results are communicated to parents can have significant effects on outcomes for their babies. The National Center for Hearing Assessment and Management (NCHAM) suggests informing parents of the results both verbally and in written form when the baby does not pass the initial screening.<sup>2</sup> Guidelines for how to communicate results to parents are attached at the end of the newsletter in Appendix A.

If communication of results were the only factor in reducing loss to follow-up rates, that might be a fairly simple obstacle to overcome. As we all know, there are other significant barriers to

<sup>1</sup>Retrieved from [National Center for Hearing Assessment & Management \(NCHAM\)](http://www.infanthearing.org/summary/slides/slide21.gif) website on 05/12/2006, <http://www.infanthearing.org/summary/slides/slide21.gif>.

<sup>2</sup>Reporting Hearing Screening Results to Parents. Sound Ideas, Vol. 1, Issue 4, Oct 1, 1997. Retrieved from The National Center for Hearing Assessment and Management (NCHAM) website on 05/12/2006 [http://www.infanthearing.org/newsletter/backissues/si\\_v1i4.pdf](http://www.infanthearing.org/newsletter/backissues/si_v1i4.pdf).

obtaining follow-up testing. The National Institute on Deafness and Other Communication Disorders (NIDCD) specifically highlights the following<sup>3</sup>:

- ❖ **Babies are missed at the hospital.** Ideally, 100% of the babies born at your facility should be screened! But if the number of babies missed is more than 2-4% of the total population, examine the screening system to see if there are any gaps in services. How much personnel coverage is there? How many babies are missed during the evenings and weekends? Do hearing screening results get recorded on the metabolic screening cards?
- ❖ **Transportation barriers.** One solution to this problem can be addressed for those children who receive Medical Assistance. Medical Assistance will provide transportation to appointments. Contact your local county health department or the Maryland Children's Health Program at 800-456-8900 for more information.
- ❖ **Funding and staffing barriers.** If lack of funding prohibits screening and follow-up of all babies due to shortages in personnel, consider cross-training hospital staff to perform hearing screenings when regular screeners are not available.
- ❖ **'Lost messages' and the role of communication.** Discontinuity of care can make follow up very challenging. Babies get discharged or transferred, pediatricians are not always known at the time of delivery, pediatricians may not receive the hearing screening results, and parents/caregivers may not be informed or may forget actual results. An efficient way to communicate the results should be in place so that those babies who require another screening will not be lost to follow up. Verbal communication in addition to a written record of the results should be provided to the caregiver. Always try to obtain current contact information for the baby to ensure that the family can be located.
- ❖ **Language and literacy barriers.** According to the 2000 Census<sup>4</sup>, almost 8% of the population in Maryland spoke a language other than English. Eighty-two percent of those reportedly spoke English 'Well' or 'Very Well.' Almost 20% of those whose primary language was not English reportedly spoke English 'Not Well' or 'Not At All.' If an interpreter is not available to communicate the results of the hearing screening to the caregivers, the Maryland Infant Hearing Program has access to interpreters of most languages that may be spoken in Maryland. We can be reached toll-free at **800-633-1316** and an interpreter can be obtained almost instantaneously by telephone if the language required is known. For those who are Deaf, both Maryland Relay and a TTY machine are available to allow them to communicate directly with us. The toll-free TTY phone number is **866-635-4410**. Also keep in mind the literacy level of the reader when providing written materials to caregivers.

What else can you do to increase the return rate for follow-up?

- Provide a record to the parent/caregiver with an explanation of the procedure, the results of the hearing screening, and what the next step is.
- BEFORE the baby is discharged, have the parent/caregiver schedule an appointment for a repeat hearing screening. A repeat hearing screening is recommended by 1 MONTH of age.
- On the form with the hearing screening results that is provided to parents by your facility, write the repeat appointment date or write the location and phone number to call to schedule an appointment.

---

<sup>3</sup> National Institute on Deafness and Other Communication Disorders. NIDCD Working Group: Better Communication Needed to Reduce Infants 'Lost to Follow-Up.' Retrieved on 05/12/2006 from <http://www.nidcd.nih.gov/health/inside/spr03/pg1.asp>.

<sup>4</sup> U.S. Census Bureau. 2000 Census. Retrieved on 05/15/2006 from <http://www.census.gov/population/cen2000/phc-t37/tab22a.pdf>.

- Send a copy of the results to the baby’s pediatrician, or give a copy of the results to the parent/caregiver to take to the pediatrician.
- Provide a reference sheet for parents so they know what to expect at the repeat appointment and how to prepare for it. An example is attached at the end of the newsletter in Appendix B.
- If the baby is not scheduled for a follow-up appointment or does not show for the appointment, designate a person who will call the caregiver, send a letter to the family, and inform the pediatrician.
- If attempts to contact the family have been unsuccessful, notify the Maryland Infant Hearing Program by submitting a Level 2 Form or call us at 800-633-1316.



Jacob, hearing technician at Holy Cross Hospital

The Maryland Infant Hearing Program has brochures and forms available on our website to download for use at your facility. Go to our website,

[http://www.fha.state.md.us/genetics/html/inf\\_hrg.html](http://www.fha.state.md.us/genetics/html/inf_hrg.html), for materials and other information.

## Resources and News

- ✧ Family Voices is a national grassroots organization for families of children with special health care needs. Family Voices has produced a booklet titled, “Building Community Using Community Liaisons/Brokers.” The booklet provides examples of how brokers/liaisons have helped to build community and individual relationships and helped families from different backgrounds engage in the health and education services for their children and youth with special health care needs. If you are interested in creating a better network of services for your area, go to [www.familyvoices.org](http://www.familyvoices.org) for more information.
- ✧ The University of Maryland at College Park is expanding their services for children with cochlear implants and hearing aids. The STAR (Speech Therapy and Aural Rehabilitation) program is offering a 2-week summer camp for school-aged children grades 5 through 8 from July 18 to July 27. For more information, contact Paula Schauer at 301-405-4619 or [pschauer@hesp.umd.edu](mailto:pschauer@hesp.umd.edu).

## Tricks of the Trade



Hearing technicians Jacob, Carmen, Carlos and Jessica

The Universal Newborn Hearing Screening Program at Holy Cross Hospital in Silver Spring, Maryland was established in 1997 by Dr. Gilbert Herer. Today, the program is managed by Drs. Irene Sideris and Gina M. Gomez. Holy Cross Hospital is the biggest birthing facility in the state of Maryland with approximately 800 births per month. Currently, there are seven technicians within the program: four full-time employees and two part-time employees.

The following screening tips were submitted by Gina Gomez, Au.D., CCC-A, Coordinator of the UNHS Program:

1. Have several probe tip selection sizes on hand - newborns' ear canal openings vary in size. It is essential to have a probe tip that is the appropriate size for the newborn to obtain accurate results. A probe tip that is 4 to 5mm in diameter will fit most newborns. Probe tips of approximately 3mm in diameter are designed for small and premature newborns.
2. Position the newborn laterally. This will allow: a) the examiner to view the ear canal opening and determine the appropriate probe tip size; and b) the probe to stay placed within the ear canal during testing.
3. Swaddle the newborn to reduce movement during testing.
4. Screening newborns delivered by cesarean section just prior to hospital discharge may decrease the incidence of false-positive results. In a retrospective study, Gomez, Henry & Goldberg (1999)<sup>5</sup> found that well newborns delivered by Cesarean section were less likely to pass the hearing screening than those delivered vaginally. It is thought that there is an increased deposit of vernix and amniotic fluid in the outer and middle ears in these newborns because they are extracted directly from the amniotic sac within the uterus. This debris can prevent the accurate measurement of otoacoustic emissions. As amniotic fluid and debris drain from the ear canal and middle ear space during the first 24 to 48 hours postnatally, the ability to record otoacoustic emissions improves<sup>67</sup>.

Do you have any screening tips you would like to share with your colleagues? Let us know!

## *Favorite Links*

 Maryland Infant Hearing Program:

[http://www.fha.state.md.us/genetics/html/inf\\_hrg.html](http://www.fha.state.md.us/genetics/html/inf_hrg.html)

 Maryland Infants and Toddlers Program and Preschool Special Education Services

[http://marylandpublicschools.org/MSDE/divisions/earlyinterv/infant\\_toddlers/message.htm](http://marylandpublicschools.org/MSDE/divisions/earlyinterv/infant_toddlers/message.htm)

 Maryland State Regulations: <http://mlis.state.md.us/1999rs/bills/hb/hb0884e.rtf>

 American Academy of Pediatrics: Newborn and Infant Hearing Screening Activities:

<http://www.medicalhomeinfo.org/screening/hearing.html>

 National Center for Hearing Assessment & Management: Newborn Hearing Screening:

<http://www.infanthearing.org/screening/index.html>

 National Institute on Deafness and Other Communication Disorders: Has your baby's hearing been screened? <http://www.nidcd.nih.gov/health/hearing/screened.asp>

## *Coming attractions*

 *Recommended screening and diagnostic protocols from the Maryland UNHS Advisory Council*

---

<sup>5</sup> Gomez GM, Henry K, Goldberg L. (1999). In newborn hearing screenings, does birth method make a difference? *The Hearing Journal*, Vol. 52, No. 7.

<sup>6</sup> Chang KW, Vohr BR, Norton SJ, Lekas MD. (1993). External and middle ear status related to evoked otoacoustic emission in neonates. *Arch Otolaryngol Head Neck Surg*, 119:276-282.

<sup>7</sup> Vohr BR, Kemp D, Maxon A, White K (1991). Evoked Otoacoustic Emissions (EOAE) In the Full Term (FT) Neonate – A hearing Screen Trial. *Pediatric Research*, Vol.29, No.4, p.A 270.

The Maryland Universal Newborn Hearing Screening Advisory Council is finalizing recommended Level 1, Level 2, and Level 3 test protocols. These will be made available on our website.

 *Annual meeting for EHDI providers in Maryland*

We want to create a forum to facilitate communication between stakeholders in Maryland infant hearing. The meeting is scheduled on **JULY 10, 2006** at the Hearing and Speech Agency in Baltimore. Please plan on sending at least one representative from your site. See our flyer in Appendix C for more details.

 *Hospital visits*

We are in the process of setting up site visits to each birthing hospital in Maryland. It is a way for us to get to know each other, to exchange information, and to provide support for your programs. Our goal is to visit every hospital on an annual basis.

 *Expanded website*

Reporting forms, brochures, and resources for the Maryland Infant Hearing Program are now available on our website:

[http://www.fha.state.md.us/genetics/html/inf\\_hrg.html](http://www.fha.state.md.us/genetics/html/inf_hrg.html). Check it out!

 *Web based data tracking system*

The procurement process for a statewide web-based data management system is underway. We hope to get the system up and running sometime in 2007, which should greatly increase our ability to track babies, communicate with screening personnel, and generate statistics.

## Feedback

Send us your comments!

- ✧ What topics would you like to see in future newsletters?
- ✧ What can the Maryland Infant Hearing Program do to support you?
- ✧ Are there any success stories or lessons learned that you want to share with other sites?
- ✧ Do you have a cute baby picture that must be seen?

Email us at [LSVaughan@dhhm.state.md.us](mailto:LSVaughan@dhhm.state.md.us).

## Contact Information

Linda Vaughan, M.A., CCC-A, F-AAA  
Director  
410-767-6432  
[LSVaughan@dhhm.state.md.us](mailto:LSVaughan@dhhm.state.md.us)

Sun Young Lee, M.S., M.A., CCC-A  
Audiologist  
410-767-6762  
[SYLee@dhhm.state.md.us](mailto:SYLee@dhhm.state.md.us)

Theresa Thompson, M.A.  
Follow-up Coordinator  
410-767-5093  
[TThompson@dhhm.state.md.us](mailto:TThompson@dhhm.state.md.us)

Allison Matson  
Follow-up Coordinator  
410-767-6659  
[AMatson@dhhm.state.md.us](mailto:AMatson@dhhm.state.md.us)

Chevria Meekins  
Administrative Assistant  
410-767-5803  
[CMeekins@dhhm.state.md.us](mailto:CMeekins@dhhm.state.md.us)

**Address**

Infant Hearing Program  
Maryland State Department of Health and  
Mental Hygiene  
201 W. Preston St, Room 421A  
Baltimore MD 21201  
800-633-1316

**Fax numbers**

410-333-5047 or 410-333-7956

**TTY numbers**

866-635-4410 (toll free) or 410-767-4683

***\*WORKING TOGETHER TO IMPROVE COMMUNICATION IN MARYLAND\****

# UNHS Guidelines: Explaining Screening Results to Parents

## What Do I Say and Do?

Suggestions on how to deal effectively with parents about hearing screening results in Maryland's UNHS Program

### Test Results: Bilateral Pass

- The baby passes the hearing screen in both ears
  - Indicates that ear structures are working properly
  - Means that hearing sensitivity is normal
  - Remind parents that results relate to that day; they do not predict the future
  - Encourage monitoring and re-evaluation if at any time the parent becomes concerned about their baby's hearing

### Test Results: Pass with Risk Factors

- The baby passes the hearing screen in both ears
  - Indications are as above
  - Remind parents that results relate to that day; they do not predict the future
  - Because of risk factors present, emphasize the importance of regular monitoring and re-evaluation for the first 3 years of life

### Test Results: Unilateral Referral

- The baby passes the hearing screen in one ear
  - Stress importance of re-evaluation
    - Loss may be temporary
    - Loss may be permanent
  - Help arrange (or refer for) follow-up testing by 4 weeks of age

### Test Results: Bilateral Referral

- Baby did not pass hearing screening in both ears
  - Stress importance of re-evaluation
    - Loss may be temporary
    - Loss may be permanent
  - Stress that permanent hearing loss must be identified as early as possible to optimize listening, speech, and language development
  - Help arrange (or refer for) follow-up testing by 4 weeks

### I have a Referral—Now What?

- Always:
  - Have parents informed by well-trained screener, audiologist, or managing nurse/physician
  - Explain that not passing the screening does not necessarily mean permanent hearing loss, i.e. it is only a screening and not a diagnostic test
- Never say:
  - Ear fluid prevented baby from passing
  - Equipment not working (as an excuse)
  - This happens all the time, don't worry
  - Baby was too fussy
- Provide educational materials regarding:
  - Screening procedures and meaning of results
  - Normal developmental milestones for infants/toddlers
- Provide a plan for follow-up services
- Facilitate scheduling of follow-up soon after discharge
- Encourage parent(s) to keep appointment

## Contact Information

Encourage parents to contact the Infant Hearing Program with questions, concerns, and issues by calling the Infant Hearing Help Line at 1-800-633-1316

## Helpful Hints When Your Baby Needs Another Hearing Screening

There are several reasons why a baby may not pass the initial hearing screening in the hospital. Unless your baby receives a repeat screening, permanent hearing loss can not be ruled out. Ideally, the baby should be quiet and sleeping during testing. Here are some tips to help you prepare for the appointment:

- 1) Schedule the appointment *as soon as possible*. The younger your baby, the more likely that the baby will sleep during testing so that reliable results can be obtained.
- 2) Do not schedule the appointment on the same day that your baby receives shots. If your baby is fussy, it may be more difficult for the equipment to detect the soft sounds that healthy ears emit.
- 3) Schedule the appointment during the baby's regular nap time if possible. Try to keep your baby awake before the appointment so that he/she will be more likely to sleep during testing.
- 4) If possible, wait until you arrive at the testing facility before giving your baby the next feeding. This may help your baby to sleep during the appointment. Bring a bottle, pacifier, blanket, etc. to the appointment in case your baby needs to be soothed.
- 5) If more information is needed, additional visits may be required to fully assess your baby's hearing.
- 6) The Department of Health and Mental Hygiene is the lead agency for the Infant Hearing Program in Maryland. This means that personnel at DHMH track the hearing status of all babies who are tested in Maryland. In order to ensure timely follow up, make sure that reports of test results are sent to DHMH and to your primary care physician.



MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

## *Infant Hearing Program*

### Annual Universal Newborn Hearing Screening Meeting

**Monday, July 10, 10 AM - 2 PM**

Hearing and Speech Agency

5900 Metro Drive, Baltimore, MD 21215

This is your opportunity to meet other UNHS colleagues and engage in open forum discussions. Speakers will include:

- W. Stephen Seipp, Au.D., Hearing Assessment Center, Lutherville, MD  
"New UNHS Recommended Protocols"
- Louise Colodzin, MA, Montgomery County Public Schools, Rockville, MD and Karen Corkery MEd, Supervisor of Infant Hearing Program, Shady Grove Adventist Hospital, Rockville, MD  
"Shady Grove Adventist Hospital UNHS Program"
- Sun Young Lee, MA, Maryland DHMH, Baltimore, MD  
"From Screening to Intervention"

To register, fill out the attached form or visit the DHMH website:  
[http://www.fha.state.md.us/genetics/html/inf\\_hrg.html](http://www.fha.state.md.us/genetics/html/inf_hrg.html)

**Please Register by June 30, 2006**

Questions? Call 800-633-1316 (Voice) 866-635-4410 (TTY)

# Annual Universal Newborn Hearing Screening Meeting

---

July 10, 2006 10am-2pm

## **Registration Form**

Please complete (print or type)

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Work Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**\*Lunch will be provided**

Email forms to [amatson@dhhm.state.md.us](mailto:amatson@dhhm.state.md.us)  
or fax to (410) 333-5047

**Registration forms are due by June 30, 2006**

If you have any questions,  
Please call Theresa Thompson at (410) 767-5093

For Directions, visit [www.hasa.org](http://www.hasa.org)