

## Contextual Conditions for Expanding Periodic Early Childhood Hearing Screening

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A number of studies have demonstrated the efficacy of providing periodic otoacoustic emissions (OAE) hearing screening to children 0 - 3 years of age in education and healthcare settings.<sup>1,2</sup> Across these studies, children with permanent hearing loss are identified at a rate of 1 - 2 per thousand, similar to the rate of identification in many newborn screening programs. These findings lead to discussion about the relative value of offering hearing screening to larger numbers of young children as well as to speculations about potential barriers to universal preschool hearing screening, particularly in healthcare settings.<sup>3</sup>

The viability of expanding periodic hearing screening to more children does not necessarily hinge on universal adoption nor is it linked to any single, specific service setting. Rather than asking whether periodic hearing screening can be justified as a universal practice in any one setting, at this point it may be more fruitful to focus on identifying the contextual conditions within which periodic hearing screening is a “natural fit” and can complement, rather than compete with, other important services provided. Demonstrations to date suggest that OAE screening can be integrated successfully into a variety of early childhood educational and healthcare contexts when administrators can answer “yes” to the most of these questions:

- ◆ Access to/Relationships with Children and Families. Does your service system support staff in spending 3 - 5 minutes with individual children to complete a screening activity? Does your system have ongoing, face-to-face supportive contact with children and families that will allow you to initiate and complete a multi-step follow-up process which may last 6 weeks or more for a small subset of the children initially screened?
- ◆ Access to Medical and Audiological Services. Is your service system able to assist children/families in accessing medical and audiological services either through direct provision or through a referral process?
- ◆ Tracking System. Does your service system have a tracking system that allows you to document screening information about individual children and track a subset who will need to receive follow-up services?
- ◆ Staffing. Does your system have relatively stable staffing so that time invested in training staff members to conduct screening is likely to result in a sustainable program?

- ◆ Budget. Does your service system have a budget to support the purchase and maintenance of equipment and supplies?
- ◆ Focus on Child Language Development and Hearing. Does your service system have as one of its objectives to foster young children's language development and, more specifically, to monitor and promote their hearing health? Do you have access to audiological support on a contracted or volunteer basis to assist with training and implementation efforts?
- ◆ Collaborative Capacity. Are you aware of state policies or regulations that inform if and how you can implement hearing screening practices? Do you have a mutually agreed upon understanding of how screening outcomes will be shared with other agencies charged with promoting children's hearing health, especially your state's Early Hearing Detection and Intervention (EHDI) program?

When these contextual conditions are present in an early childhood educational or healthcare system, periodic OAE screening can often be integrated seamlessly and with great success. If they are not, it may not make sense for providers to purchase screening equipment or attempt to implement a hearing screening program. Perhaps one day, all children can have their hearing screened during the critical, early, language-learning years, but in the present moment, it is likely we can extend the benefits to many more than ever before.

<sup>1</sup>Bhatia, Parul, Mintz, Sandra, et al. (2013). Early Identification of Young Children with Hearing Loss in Federally Qualified Health Centers. Journal of Developmental Behavioral Pediatrics. 34: 15-21.

<sup>2</sup>Eiserman, W., Hartel, D., Shisler, L., Buhrmann, J., White, K., & Foust, T. (2008). Using otoacoustic emissions to screen for hearing loss in early childhood care settings. International Journal of Pediatric Otorhinolaryngology. , 72, pp 475-482.

<sup>3</sup>Mehl, A. (2013). From your chairperson. EHDI Email Express, January, pp 1-2.