Joint Committee on Infant Hearing Early Development Services Position Statement: Principles and Guidelines for Early Development After Confirmation That a Child Is Deaf or Hard of Hearing

Joint Committee on Infant Hearing

Since the first universal newborn hearing screening (UNHS) programs were established in the early 1990s, there has been significant progress. Progress is evident in the development and implementation of protocols for newborn hearing screening, pediatric audiologic evaluation of newborns, fitting of amplification, and medical management of children who are deaf or hard of hearing (D/HH). There remains the need to devote the same effort toward the development of the highest quality of the early development network of services (EDNS) for infants/children who are D/HH and their families. The Centers for Disease Control and Prevention (CDC) reported that over 96.9% of all newborns were screened for hearing in 2008 (CDC, n.d.). In the United States, there is evidence that earlier identification of children who are D/HH for children between the ages of birth and 7 years of age, accompanied by timely and appropriate interventions, can result in language, communication, cognitive, and social-emotional skills that are consistent with children's cognitive abilities and chronological age (Yoshinaga-Itano, Baca, & Sedey, 2010; Yoshinaga-Itano, Sedey, Coulter, & Mehl, 1998). The ultimate goal of early hearing detection and intervention (EHDI) is to optimize language, social, and literacy development for children who are D/HH.

Despite almost 20 years having elapsed since the first EHDI programs were established in the United States, most states/territories are not yet able to provide documentation of outcomes resulting from early development (ED) services. Lacking such documentation, it is unclear whether states/systems are accomplishing the goal of preventing or minimizing communicative delays typically observed in late-identified children who are D/HH. The EHDI programs are complex systems requiring a high level of collaboration at local, state/territory, and national levels between birthing hospitals, audiologists, physicians, educational personnel, speech-language pathologists, state health and educational agencies, private service providers, parents,

and D/HH leadership and support networks. Manpower constraints, financial limitations, and the lack of existing systems have hindered attainment of some of the EHDI goals. This "current best practice" document is designed to provide support for the development of accountable and appropriate ED follow-through systems.

Building systems and capacity may be necessary to accomplish best practice recommendations, and this will take time. All goals stated within this document should begin with a baseline measure. A minimum of 20% improvement toward the goal is expected annually, resulting in 90% goal attainment at the end of a 5-year period.

[1] Foundation and Definition of Key Terms Used in This Document

An optimal ED service team for families and children who are D/HH should include the family, a pediatric audiologist, teacher of the D/HH, speech-language pathologist, parent-to-parent support networks, and D/HH support. It also could include physical therapists, occupational therapists, educators of children who are deaf/blind, psychologists, and educators of children who are developmentally delayed or have significant emotional/behavioral issues.

This document supports the use of the term *communication opportunities* rather than *communication options*. Also, *early development (ED)* is used instead of *early intervention*, and *early development network of services (EDNS)* is used to refer to early intervention systems of care.

The term *deaf or hard of hearing (D/HH)* is intended to be inclusive of all children with congenital and acquired hearing loss, unilateral and bilateral hearing loss, all degrees of hearing loss from minimal to profound, and all types of hearing loss (sensorineural, auditory neuropathy, permanent conductive, and mixed).

The term *core knowledge and skills* is used to describe the expertise needed to provide appropriate ED that will optimize the development and well-being of infants/children and their

families. Core knowledge and skills will differ according to the roles of individuals within the EDNS (e.g., service coordinator or ED educator).

Development when used in this document refers to language (spoken and signed), communication (auditory, visual, prelinguistic, linguistic, and speech), cognitive, social, and emotional skills.

Language when used in this document refers to the development of all spoken and signed languages, all visual language including American Sign Language (ASL) or other signed languages used in the United States (e.g., AUSLAN, British Sign Language, or Mexican Sign Language), and all spoken languages including English, Spanish, Chinese, and any other non-English language spoken in the home.

This best practice document for the implementation of EDNS (habilitative, rehabilitative, or educational) is intended to assist the state/territory EHDI systems in optimizing the development and well-being of infants/children and their families. Another goal of this document is to facilitate the development of systems that are capable of continuously evaluating and improving the quality of care for infants/children who are D/HH and their families. Finally, this document outlines best practices to promote quality assurance of ED programs.

Goal 1: All children who are D/HH and their families have access to timely and coordinated entry into ED programs supported by a data management system capable of tracking families and children from confirmation of hearing loss to enrollment into ED services.

[2] Rationale

Screening hearing in newborns creates an opportunity but does not guarantee optimal outcomes. Timely access to quality EDNS is a critical component of a successful system. The Colorado EHDI system was established in 1992 and focused on timely and coordinated access to ED with a statewide data management to ensure follow-through. Beginning in 1995 and continuing to the

present, a series of articles on the Colorado system was published. These studies provide evidence that many D/HH infants with no additional disabilities who were early-identified and who had timely access to an appropriate ED system achieved age-appropriate developmental outcomes not only in the first 3 years of life (Apuzzo & Yoshinaga-Itano, 1995; Kennedy, McCann, Campbell, Kimm, & Thornton, 2005; Kennedy et al., 2006; Moeller, 2000; Yoshinaga-Itano & Apuzzo, 1998; Yoshinaga-Itano et al., 1998, Yoshinaga-Itano, Coulter & Thomson, 2000, 2001) but through age 7 (Baca, 2009; Pipp-Siegel, Sedey, & Yoshinaga-Itano, 2003; Yoshinaga-Itano et al., 2010).

Part C of the Individuals with Disabilities Education Act (IDEA) requires that infants and toddlers with disabilities receive early intervention services from birth through age 3 (IDEA, 2004). These services are provided according to an individualized family service plan (IFSP). Barriers to the development of comprehensive systems for children who are D/HH are the lack of coordination between local and state Part C programs, state EHDI programs, and existing systems for children who are D/HH. To accomplish goals for monitoring and tracking children who are D/HH, a strong partnership with Part C will be necessary at the national, state/territory, and local levels. At the current time, tracking systems from universal screening to diagnosis, to enrollment in ED, and to developmental outcomes are being developed in many states/territories, but there are currently only a few coordinated systems.

Loss to documentation and loss to follow-up rates are threats to the effectiveness of EHDI systems. Reduction of these losses is a high priority in the effort to strengthen the development of EHDI systems. Continuously updated data reported to the CDC indicate that a significant number of referrals are lacking documentation of confirmatory audiologic evaluations and/or enrollment in ED. It is estimated that currently only one in four children who are D/HH are successfully tracked to EDNS (Centers for Disease Control). Loss to documentation and ineligibility for services (e.g., infants with unilateral hearing loss [UHL]) also may contribute to loss to follow-up rates.

- 1. Collect, analyze, and discuss EHDI follow-up statistics with Part C to promote collaboration and identify system gaps or needs regarding statistics to be reviewed, such as (a) confirmation/identification of children who are D/HH and (b) their enrollment in ED services
 - a. Identify the referral process operating within the state/territory and identify potential opportunities/options that could help in the development of a timely coordinated system of entry into ED services and with individuals who have core knowledge and skills necessary to optimize the overall development and well-being of children and their families; also, identify methods to report and track individual children from audiologic confirmation to developmental outcomes. These systems often involve coordination between Part C at the state or local levels and existing systems of ED for children who are D/HH.
- 2. Delineate clear and agreed upon responsibilities for all participating agencies.
 - Develop timelines and designated individuals for communication and reporting responsibilities.
 - b. Develop a schedule for feedback mechanisms (i.e., the frequency with which participating agencies will report to the state database regarding enrollment into ED, such as monthly, bimonthly, semi-annually, or annually).
 - c. Develop a flowchart for dissemination of information/data.
 - d. Collect, regularly analyze, and report data on compliance with the requirement for timely access to an EDNS. Timely access is defined as referral to Part C within 2 days of audiologic confirmation. First ED contact with the family should occur within a week of referral, and implementation of services should occur within 45 days of referral. This schedule allows for time to complete the developmental assessment and IFSP within the 45-day timeline.
- 3. Develop a mechanism that ensures family access to all available resources and information that is accurate, well-balanced, comprehensive, and conveyed in an unbiased manner.

- a. Determine which entity will take responsibility for the development and update of a state/territory family resource manual.
- b. Monitor the development of the family resource manual, available in different languages and diverse formats (e.g., video/DVD, written, web, <u>video</u> blog, or three-ring binders), with regular annual updates and revisions that include:
 - 1) description of all ED programs and providers,
 - 2) identified websites,
 - 3) national organizations,
 - 4) glossaries,
 - 5) infrastructure of state,
 - 6) Part C.
 - 7) communication opportunities,
 - 8) resources available at state/territory and national levels.
- c. Develop a mechanism which ensures that the information contained in the family resource manual provides parents/families with unbiased and accurate information through review by the state/territory EHDI committee or other designated body.
- d. Implement an ongoing quality assurance mechanism (including evaluation) related to the family resource manual.
- e. Implement a mechanism of dissemination which ensures that all families with newly identified children who are D/HH receive the family resource manual and that the information is reviewed with the family and explained by the service coordinator or ED provider in a timely manner. Parent-to-parent support (discussed below in Goal 9) is an effective mechanism for dissemination of information. Ask parents of newly identified infants/children who are D/HH annually whether they received the family resource manual and had information reviewed.

Goal 2: All children who are D/HH and their families experience timely access to service coordinators who have specialized knowledge and skills related to working with individuals who are D/HH.

[2] Rationale

The service coordinator is the person responsible for the implementation of the IFSP and coordination with agencies and service providers. This person is generally the first point of contact; assists families in gaining access to services; assists and enables the child and family to receive information about the rights, procedural safeguards, and services available within their state; coordinates assessment; facilitates and participates in the development of the IFSP; and coordinates and monitors the delivery of services.

Optimally, the first contact should occur within days of the audiologic confirmation, and the goal should be no later than a week after confirmatory testing. The individual with first contact needs specialized knowledge and experience related to:

- infancy/early childhood;
- educational strategies for children who are D/HH and their families;
- parent counseling, especially adjustment counseling specific to families with children who are D/HH;
- development of signed and/or spoken language;
- auditory skill development;
- speech development;
- cognitive development;
- social-emotional development.

Individuals who make first contact must be able to answer parents' questions about deafness and hearing loss and provide reexplanation of:

- screening technologies;
- audiologic diagnostic evaluations;
- amplification choices;
- communication opportunities;
- communication development from infancy through early childhood including language, auditory, speech, signing, and social-emotional domains;
- resources relevant to working with children who are D/HH;

- medical details such as the likelihood of progression or improvement of hearing levels;
- opportunities/options related to auditory/visual technology (e.g., light systems, doorbells, or captions).

When parents/caregivers/families receive support from professionals who are knowledgeable about infants/children who are D/HH and their families, emotional bonding between parents and infants is likely comparable to that between parents and infants who have normal hearing. Parental stress is reduced, and parental grieving is lessened (Pipp-Siegel, Sedey, & Yoshinaga-Itano, 2001; Pressman, Pipp-Siegel, Yoshinaga-Itano, & Deas, 1999; Pressman, Pipp-Siegel, Yoshinaga-Itano, Kubicek, & Emde, 1998; Yoshinaga-Itano, 2002; Yoshinaga-Itano & Abdala de Uzcategui, 2001. Service coordinators in the ED program studied were highly knowledgeable. No studies document a causal relationship between provider expertise and these social-emotional characteristics. Although these studies are not designed to compare efficacy of various approaches, they do demonstrate the outcomes of a program with specialized service coordinators and ED service providers. There is evidence in the literature that some parents experience negative emotions when service coordination is provided by individuals without the core knowledge and skills for working with children who are D/HH (Jackson, 2009).

- 1. Develop or adapt qualifications for service coordinators who contact families after confirmation that their child is D/HH. Collaborate with Part C in a manner that includes the expertise of the state EHDI team or an EHDI task force and ED specialists with expertise in supporting children who are D/HH. These state/territory guidelines should:
 - a. Describe the professional qualifications (educational and experiential background) of service coordinators for children and their families.
 - b. Describe the core knowledge and skills for service coordinators based on evidence-based practices and the recommendations of professional organizations and national policy initiatives.

- 2. Implement strategies to identify current skills of service coordinators and gaps in their knowledge and skills related to serving families with D/HH children. Professional development programs are established, implemented, and include training in dissemination of information without bias. Resources and other supports are provided to assist service coordinators in the acquisition of core knowledge and skills needed to promote successful outcomes for the children and their families.
- 3. Identify the number and percentage of families who had timely access to a service coordinator with skills and expertise related to D/HH children and their families.

Goal 3: All D/HH children from birth through 3 years of age and their families have ED providers who have the professional qualifications and core knowledge and skills to optimize their development and well-being.

[2] Rationale

States/territories need to ensure that ED providers meet at least minimum criteria for experience and skills necessary to serve infants who are D/HH and their families. Because of the shortage of qualified professionals, it is important that a system for building capacity exists at preservice, inservice, and mentoring levels.

The purpose of these recommendations is to assist states and territories in the provision of high-quality ED through:

- identification of the core knowledge and skills for direct ED services providers (e.g., those who provide developmental, educational, and communication/language [including spoken and/or sign language] services; see Appendix A);
- development of guidelines for the delivery and evaluation of a system of ongoing professional development for direct ED service providers.

Although more evidence is needed, recent research suggests that outcomes for young children and their families are better when providers have specialized training specific to working with infants and toddlers who are D/HH and their families (Calderon, 2000; Kennedy et al., 2005; Moeller et al., 2000; Nittrouer & Burton, 2001; Yoshinaga-Itano, 2003). Professional consensus statements acknowledge the need for service providers with specific training in serving children who are D/HH (Marge & Marge, 2005). A survey of specialists from 17 organizations with interests in the area of ED for children strongly supported the need to identify a set of core competencies for ED specialists working with children who are D/HH (Sass-Lehrer, Stredler Brown, & Moeller, 2008).

ED providers have a wide range of disciplinary backgrounds (Stredler- Brown & Arehart, 2000) and may not have sufficient preservice course work and/or practicum experiences that address the needs of D/HH children from birth through age 3 and their families (Harrison, 2004; Jones & Ewing, 2002; Lenihan & Rice, 2005; Proctor, Niemeyer, & Compton, 2005; Sass-Lehrer et al., 2010). They may lack the core knowledge and skills to work with this population effectively.

Approximately one third of all states in the United States have a professional certification or credential that includes D/HH children from birth through age 3 (Sass-Lehrer et al., 2010). However, the standards vary widely and may not specifically include course work and field experiences that address the needs of infants and toddlers who are D/HH and their families.

The wide range of disciplinary backgrounds and limited preservice training opportunities at most institutions specific to children who are D/HH create a need for systematic capacity building. Appropriate professional development guidelines for specific disciplines that support theory and evidence-based practice for working with children who are D/HH must be established. Evaluation of training and training outcomes is essential, as the quality of the professional training is ultimately reflected in the impact on child and family outcomes.

Personnel development guidelines need to be in accordance with the existing legal requirements of Part C of IDEA (2004) and with the requirements in each state or territory (e.g., credentials or qualifications for early intervention specialists).

- Adopt and implement guidelines that address the professional qualifications required for providing services to families and children who are D/HH from birth through age 3. These guidelines will address educational background and core knowledge and skills for providers of ED services including developmental, educational, and communication/language (including spoken and/or sign language).
- 2. Ensure that stakeholders participate in the adoption and implementation of these guidelines. Stakeholder categories will include, at minimum, the state EHDI and Part C programs, ED direct service providers with core knowledge and skills serving D/HH children from birth through age 3, parents/caregivers with children who are D/HH, and adults who are D/HH with a background in a related area.
- 3. Provide the resources needed for professionals to obtain the core knowledge and skills to serve D/HH children from birth through age 3 and their families.
- 4. Following the approved guidelines, identify the number and percentage of ED providers who have the appropriate core knowledge and skills and are currently providing services to families with infants/children who are D/HH.
- 5. Identify the number and percentage of ED providers who do not meet the qualifications required but participate in professional development activities specific to ED services and children who are D/HH each year.

6. Regularly monitor progress toward this goal by annually identifying the number of families who are receiving ED services from professionals with core knowledge and skills as determined by the state-developed qualification system.

Goal 3a: ASL and/or other signed systems will be available from providers who have native or fluent skills.

[2] Rationale

For all opportunities/options to be truly available to families with newly identified infants/toddlers who are D/HH, a system of highly qualified ED service providers must be available across all approaches. An area that has been particularly deficient is family and infant/toddler access to a teacher who is a fluent/native ASL signer.

Families and children in the process of learning ASL require access to competent and fluent language models. In ED systems, this competency and fluency are not ensured among ED providers. To establish the basic grammatical foundations of visual language learning for a newborn infant who is D/HH, access to competent and fluent language models are vital (Mayberry, 1994, Morford & Mayberry, 2000). However, the fluency of the language model, while necessary, is not sufficient for ED sign language instructors. Families with children who are newly identified also need information and resources from ED professionals on how they can provide an enriched language environment that supports their child's early language learning.

Deaf and hearing children who are exposed to ASL from birth in a home where it is the primary language acquire ASL on a maturational time line that is identical to that of hearing children who acquire English or French (Petitto et al., 2000).

The SKI-HI Institute Deaf Mentor program is a model that can provide resources and training for deaf and hard of hearing people to support a family's learning of ASL. The families can be given resources and support in acquiring ASL through collaboration with deaf and hard of hearing adults who communicate in ASL. In SKI-HI's Deaf Mentor program, deaf and hard of hearing

adults are role models for the young child and family members. The child and the family learn ASL and are introduced to various Deaf culture events. The SKI-HI Institute conducted a 3-year study titled "The Deaf Mentor Experimental Project for Young Children Who Are Deaf and Their Families" and found that children of hearing parents who are exposed to a bilingual and culturally competent environment through Deaf Mentor services have positive outcomes. Not only did the children have a beginning knowledge and use of ASL, they were also developing English skills at a rate beyond those children who did not receive Deaf Mentor services (Pittman, 1998; Watkins, Pittman, & Walden, 1998).

- 1. Ensure that families have complete and accurate information about ASL.
- 2. Identify collaborative partners who can assist in the development of statewide systems capable of providing competent sign language instruction to families and their infants/children. Partners may include EHDI systems, ED professionals with skills in teaching families with infants/toddlers who are D/HH, and individuals who are D/HH with fluent/native skills and have experience in teaching families/parents of infants. Agencies that can support development of a statewide system may include schools for the deaf, local education agencies, state coordinators of services for students who are D/HH, the Registry of Interpreters for the Deaf, the ASL Teachers Association, the American Society for Deaf Children, the State Association of the Deaf, and the National Association of the Deaf.
- 3. Establish a representative committee that develops guidelines related to the qualifications of sign language instructors. Committees should include specialists in ED strategies for parent/family education and individuals who are D/HH with fluent/native skills and experience in teaching families/parents of infants.
- 4. Conduct a needs assessment to determine (a) the number of available sign language instructors with the qualifications in sign language and parent/infant education and (b) available funding sources.

- 5. Develop systems and ensure that neither geographic location nor socioeconomic status limit access to competent and skilled sign language instructors. State systems should consider utilization of all technology, including computer and videophones, to support teaching families.
- 6. Establish and conduct training for ASL instructors to include strategies and techniques for teaching parents of infants and toddlers sign language.
- 7. Establish a system which ensures that ASL instructors are employees and professionals who are compensated with competitive wages.
- 8. Establish a quality assurance program for ASL instructors of parents/families. This would (a) assess their fluency in and knowledge of ASL (existing models for such assessment include the ASL Teachers Association, the Registry of Interpreters for the Deaf, and the ASL Proficiency Interview) and (b) determine their ability to tailor the instruction so that families are prepared to communicate with very young children.
- 9. Ensure that ASL instructors can accept, without bias, a family's use of their sign language skills with or without spoken language.

Goal 3b: Intervention services to develop listening and spoken language will be provided by professionals who have specialized skills and knowledge.

[2] Rationale

The development of listening and spoken language skills is now attainable for the vast majority of infants/children who are D/HH (without severe additional disabilities) when they are identified early and receive early and appropriate ED services, beginning with the appropriate fitting of amplification technology (Moeller, Hoover, Putman, Arbataitis, Bohnenkamp, Peterson, Stelmachowicz, 2007a, 2007b; Yoshinaga-Itano & Sedey, 2000). However, wide variations in

the skills of the providers and the listening and spoken language outcomes of children who are D/HH exist throughout the United States and its territories. The consensus of professionals who specialize in intervention for listening and spoken language for children who are D/HH is that these skills are frequently not mastered in typical preservice training programs of educators of the deaf, speech-language pathologists, or audiologists (Marge & Marge, 2005).

Competent service delivery systems have a series of checks and balances, as well as cross-check processes to ensure fidelity of intervention. Because of the possibilities that infants/children who are D/HH are not fit appropriately with amplification technologies that offer optimal access to spoken language, ED providers need to be able to verify that the technology provides the child with audibility across the speech frequency range, sufficient to access soft, conversational-level speech. Additionally, changes in the infant/child's hearing capabilities can occur, with the highest probability being progression, although improvement and fluctuation in hearing sensitivity can also occur, both from permanent or medically treatable causes. ED specialists need to be able to individualize services to the child's auditory capabilities with the technology. Additionally, the ED provider needs expertise regarding listening and spoken language developmental hierarchies and the ability to use diagnostic teaching to ensure that the auditory linguistic strategies used are the most effective.

Research indicates that there are sensitive periods for the development of auditory skills and spoken language; specifically, the first 5 years of a child's life are critical to these developmental areas. To optimize this short time period in a child's life, families and infants/children who are D/HH require the highest level of provider skills at the very beginning of the child's life (Sharma & Dorman, 2006; Sharma, Dorman, & Spahr, 2002; Yoshinaga-Itano et al., 1998).

Unfortunately, currently most ED systems provide limited access to expertise in listening and spoken language and do not collect systemwide outcome data on children to demonstrate successful listening and spoken language development. Such data are essential to make certain that families and children have received high-quality intervention with targeted outcomes. Many ED systems do not offer professional development opportunities to ensure continuous

improvement for the ED providers, nor do they offer consultation/mentorship and observation to guarantee fidelity of the intervention implementation. These are critical areas of need if best practices in listening and spoken language are to be established.

- 1. Ensure that families have complete and accurate information about listening and spoken language development.
- 2. Identify collaborative partners who can assist in the development of statewide systems capable of providing competent listening and spoken language instruction to families and their infants/children.
- 3. Establish qualifications of ED service providers with the core knowledge and skills to develop listening and spoken language (see Appendix B as well as existing professional organization models such as Listening and Spoken Language Specialist certification from the Alexander Graham Bell Academy for Listening and Spoken Language).
- 4. Conduct a needs assessment to determine the number of available ED providers with the qualifications and skills required for developing listening and spoken language with infants who are D/HH.
- 5. Develop systems and ensure that neither geographic location nor socioeconomic status limit access to competent ED providers with skills in developing listening and spoken language. State systems should consider utilization of all technology, including computer and videophones, to support teaching families.
- 6. Establish and conduct training for ED providers to increase their skills in providing listening and spoken language development.

- 7. Establish an evaluation of the skills and knowledge of ED providers in their delivery services for listening and spoken language.
- 8. Ensure that the ED providers have been observed sufficiently, have been provided with feedback, and have demonstrated skills in the provision of listening and spoken language interventions for families with infants/children who are D/HH.
- 9. Ensure that ED providers can accept, without bias, the family's use of the listening and spoken language skills they have learned with or without the use of sign language or any other visual communication system.

Goal 4: All children who are D/HH with additional disabilities and their families have access to specialists who have the professional qualifications and specialized knowledge and skills to support and promote optimal developmental outcomes.

[2] Rationale

It is estimated from previous studies that 35% to 40% of all children who are D/HH have additional disabilities (Gallaudet Research Institute, 2008; Yoshinaga-Itano et al., 1998). These additional disabilities often affect the child's ability to access language and use expressive language. Very little empirical information is available about the development in the first 6 years of life of children who are D/HH with other disabilities. However, appropriate ED services should result in similar advantages for children who are D/HH with additional disabilities as for children who are D/HH only (Apuzzo & Yoshinaga-Itano, 1995; Pipp-Siegel et al., 2003 Yoshinaga-Itano et al., 1998). Children who are D/HH and have additional disabilities, with cognitive skills ranging from quotients of 20 to 80, demonstrated significantly better language scores in the first 3 years than later-identified children with multiple disabilities (Yoshinaga-Itano et al., 1998) to 5 years of life (Pipp-Siegel, Sedey, VanLeeuwen, & Yoshinaga-Itano, 2003), when they were early identified and received timely ED services.

Some children who are D/HH have significant additional disabilities, and it may be determined that deafness/hearing loss is not the primary disability. Regardless of the primary disability, it is key to recognize the primacy of communication for learning and the impact of communicative delays on other developmental domains. Therefore, the team of specialists serving the child must include specialized expertise in meeting the communication access needs of the child.

Early development specialists serving children who are D/HH with additional disabilities should be able to:

- monitor developmental needs and outcomes across domains with appropriate assessments;
- work as an effective and integrated member of a transdisciplinary team, in a manner that optimizes child and family learning;
- modify developmental strategies to accommodate the child's special needs;
- facilitate/advocate the parent/family understanding of medical, developmental, pediatric, and other specialty reports and their implications for the child's learning;
- collaborate with the managing audiologist to adapt assessment and amplification approaches to accommodate the child's special needs;
- recognize the need and make referrals for specialty evaluations and input;
- assist families in prioritizing needs to optimize the level of service delivery at various ages;
- adapt ED strategies to appropriately accommodate disabilities in other developmental domains and to reinforce goals of other specialty providers on the team;
- Use augmentative communication devices and strategies, including individualized evaluation and implementation;
- Manage mobilization devices and other supportive equipment needed by the child.

- 1. Develop and implement a data management system capable of reporting the number and percentage of children who are D/HH with additional diagnosed disabilities, including the following:
 - a. visual disability
 - b. intellectual disability

- c. emotional/behavioral disability
- d. gross motor delays with or without cerebral palsy
- e. fine motor delays
- f. autism spectrum disorders
- g. seizure disorder
- h. neurodegenerative disorders, brain malformations,
- i. sensory processing disorder
- 2. Develop a system with the ability to track children who are D/HH with additional disabilities regardless of the primary diagnosis of the child, identifying the individual or agency that can and will assume responsibility for tracking these children (e.g., EHDI or Part C, public school programs, or schools for the deaf)
- 3. Ensure that the developmental monitoring protocol is adaptive and sensitive to any restrictions in performance due to the additional disability that would significantly underestimate the abilities and skills of the child.
- 4. Implement models of transdisciplinary services, making certain that families who have children with multiple disabilities have access to ED services that meet the needs of the child and family in all developmental domains.

Goal 5: All D/HH children and their families from culturally diverse backgrounds and/or from non-English-speaking homes have access to culturally competent services with provision of the same quality and quantity of information given to families from the majority culture.

[2] Rationale

The number and proportion of the culturally and linguistically diverse population of children who are D/HH in the United States and its territories are continually rising. In some major urban areas, and in some states, the number of culturally diverse occupants is now the majority. There

is a rapid and growing population of children who are D/HH living in families who do not speak English as the primary language of the home. Additionally, there are families who use ASL as the language of communication within the home. An additional aspect of diversity is the significant portion of families who have lower levels of literacy, parental education, and/or family income. These families are at highest risk for failure to benefit from and to access traditional educational services. Research studies within the United States have demonstrated that it is possible to deliver ED services that result in appropriate development of children of families from culturally diverse backgrounds (Yoshinaga-Itano et al., 1998).

It is important that the information provided to families is of the same quality and quantity as that provided to native English speakers and that it is delivered in a manner that is accessible to the families. Even families who are able to communicate successfully in spoken English but are culturally diverse may have values and beliefs that affect their understanding and acceptance of information conveyed or their ability to follow through on recommendations. Therefore, it also is essential that the manner in which information is delivered is respectful of the beliefs and values of the families and their countries of origin (Steinberg, Bain, Li, Delgado & Ruperto, 2008).

Languages throughout the world have differences in phonology, semantics, syntax/grammar, and pragmatics. ED providers need to learn to adapt auditory skill development strategies for the teaching of spoken English to the acoustic characteristics of the family's native language. The child must have access to a high quality of spoken language in the instructional language for initial communication (Robbins, Green, & 2004; Waltzman, Robbins, Green & Cohen, 2003; Yoshinaga-Itano, 2006).

As unique as spoken languages, visual language systems also differ around the world. However, unlike spoken language, many families are not knowledgeable about their native signed languages, and therefore introduction of ASL or other visual systems used in the United States is often appropriate.

- 1. Identify the number of families who speak a language other than English in the home and the percentage of families using non-English languages by type (e.g., Sudanese or Spanish).
- 2. Identify the number of families who speak English and are culturally diverse, including the areas of cultural diversity (African American, Hispanic/Latino, Asian American or South Pacific Islander, or American Indian/Native American).
- 3. Develop a plan for ensuring comparable access to information for families whose native language is not English as that provided to native English-speaking families by providing resources in the family's home language. Steps should include the following:
 - a. Identify the number of ED providers capable of providing ED services directly in a language other than English.
 - b. Identify the number of families receiving services provided through regular and trained interpreters (knowledgeable about the parent–infant curriculum).
 - c. Develop materials that are available in the home language of the child or that can be adapted (not just translated from one language to another) to the particular culture and language of the family.
- 4. Ensure that families from diverse cultures participate in and feel comfortable giving feedback about services received, by providing diverse communication mechanisms including face-to-face feedback or surveys in the home language, "buddy systems" and peer mentors from culturally diverse groups, community leaders who can serve as cultural brokers and advisers, and consistent interpreters who are trained in the ED curriculums specific to families with children who are D/HH.
- 5. Develop professional in-service training that includes information about providing services to families who do not speak English. This training should include such topics as cultural differences in attitudes and beliefs about disability, behaviors that may be considered offensive by other cultures, avoidance of cultural stereotypes, and different cultural

expectations of medical, allied health, and educational professionals. Training also should include beliefs about being deaf and hard of hearing not as a disability but as a cultural and linguistic difference.

6. Monitor the developmental progress of the children who are acquiring languages other than spoken English. For some of the more common languages, such as Spanish, there are a few developmental instruments that can be used. As developmental assessments become available in other languages, they should be incorporated into ED programs to assist parents in monitoring their child's progress and determining whether the choices made are facilitating success in communication for their child who is D/HH. (See www.sci.sdsu.edu/cdi/adaptations_ol.htm for MacArthur—Bates Communicative Development Inventories in other languages.)

Goal 6: All children who are D/HH should have their progress monitored every 6 months from birth through 36 months of age and annually thereafter, through a protocol that includes the use of standardized, normed developmental evaluations for language (signed and/or spoken), communication (auditory, visual, and/or augmentative), social-emotional, cognitive, and fine and gross motor skills.

[2] Rationale

The current IDEA Part C developmental assessment of children with disabilities is designed to demonstrate that ED services remediate developmental delay for infants/toddlers and children with disabilities. In contrast, EHDI/UNHS systems have been established for the prevention or amelioration of the developmental delays often associated with children who are D/HH. Thus, developmental assessment for this population is designed to ensure that the children are mastering the developmental skills appropriate for their age and cognitive levels. Earlier identification of children who are D/HH has been established with the goal of prevention of delay, not remediation of delay.

The urgency of providing appropriate ED services is supported by evidence of reduced and limited success of ED strategies that are initiated after the sensitive period of development for language and auditory development (Moeller, 2000; Yoshinaga-Itano et al., 1998). The goal of ED services for infants/children who are D/HH is to provide sufficient support to ensure that the child makes appropriate progress toward expected developmental objectives. The best opportunity to accomplish this goal is the prevention of developmental disability. Therefore, progress monitoring should be done with instruments that are norm-referenced. Assessment tools/tests should be appropriate for the language and communication system used by the child.

Monitoring of developmental progress provides parents/families and ED providers objective data about the individual rate of their child's development and can guide their decision making. Additionally, systemic monitoring of developmental progress has the potential to provide states/territories, local educational agencies, and individual early childhood programs with information that can guide system change and continuous improvement by identifying strengths and weaknesses within their system.

- 1. Monitor the developmental progress of all infants identified through UNHS on a consistent schedule, every 6 months through 36 months and annually thereafter, to ensure that children are making appropriate progress in the following areas:
 - a. Language (spoken and/or signed) and social-emotional development commensurate with or within one standard deviation of their chronological age or cognitive development;
 - b. Auditory, listening, and speech development leading to intelligible and age-appropriate spoken language, if this opportunity is chosen by the family;
 - c. Signing, both expressivity and receptivity, leading to appropriate language development, if this opportunity is chosen by the family;
 - d. Fine and gross motor development, visual and auditory perception, and measures of adaptive behavior;

- e. Longitudinal developmental growth over time can only be analyzed if the child is assessed with at least some instruments that can be repeated throughout the target age range;
- f. Progress monitoring should also be used to assess the quality of the system. States and territories should develop some guidelines for determination of the frequency and intensity of service sufficient for adequate progress for an individual child based on his or her progress monitoring.
- 2. Develop a standard assessment protocol used with all children who are D/HH to provide the state/territory with an opportunity to do quality assurance of components of their ED system. States could develop a standard assessment battery in collaboration with experts in their state and either directly implement the battery or ensure that it is implemented (e.g., through a university, research entity, or other program capable of collecting and analyzing statewide assessment data for children who are D/HH). This information can then be used to improve the skills of the providers and the characteristics of intervention. Develop a collaborative sharing network capable of collecting developmental data for progress monitoring at regular intervals and data reporting to the EHDI database.

Goal 7: All children who are identified with hearing loss of any degree, including those identified after 6 months of age, those with unilateral or slight hearing loss, those with progressive or fluctuating hearing loss, and those with auditory neuropathy, receive appropriate and immediate follow-up intervention services.

[2] Rationale

Bess and Tharpe (1984) studied the communication outcomes of children with UHL and found that these children were 10 times more likely to have academic failures than children with bilateral normal hearing. Thirty-five percent of these children had to repeat at least one grade in school, and an additional 13% required resource assistance for academic difficulty. Other studies have found similar delays in children with unilateral and minimal hearing loss (Bess & Tharpe, 1984, 1986; Bess, Tharpe, & Gibler, 1986; Culbertson & Gilbert, 1986; Kiese-Himmel, 2002;

Klee & Davis-Dansky, 1986; Lieu, Tye-Murray, Karzon, & Piccirillo, 2010; Oyler, Oyler, & Matkin, 1988). About one third of children with unilateral sensorineural hearing loss are at risk for delayed language development, and delays are evidenced in the first 3 years of life (Yoshinaga-Itano, Johnson, Carpenter, & Brown, 2008). Severe to profound deafness in the affected ear was found by some articles to place a child at greatest risk (Bess & Tharpe, 1986; Brookhouser, Worthington, & Kelly, 1991; Yoshinaga-Itano, et al., 2008). Children with permanent conductive mild and moderate UHL caused by atresia or other anatomical conditions had fewer additional developmental delays than those with sensorineural hearing loss (Yoshinaga-Itano et al., 2008). Additionally, causes of UHL such as enlarged vestibular aqueducts, cytomegalic virus, or specific genes may also place children with UHL at risk for progression in both the affected ear and unaffected ear, possibility resulting in later bilateral hearing loss (Yoshinaga-Itano et al., 2008). Neault (2005) reported that 40% of a 2-year cohort who referred to a diagnostic audiologic evaluation because of failure in a single ear through UNHS programs were identified as having bilateral hearing loss. Although some of these children could have had a false negative of the ear that passed in the initial screen, the possibility of progression cannot be ruled out. Early intervention Part C guidelines for children with UHL may differ by state. In some states, all children with UHL are eligible for ED services, while other states require documented developmental delay. The intent of these recommendations is to make certain that when a UHL is confirmed, basic information is available for all parents. Whenever parents are told that their child has confirmed deafness/hearing loss, they should receive information and follow-up audiologic and developmental evaluations (McKay, Gravel, & Tharpe, 2008).

Bess, Dodd-Murphy, and Parker (1998) found that school-age children with minimal bilateral hearing loss and UHL had, on average, an academic failure rate of approximately 37%, with an additional 8% requiring resource assistance, similar results to the 1980s studies on UHL. Children at the third-grade level had significantly lower scores on the Comprehensive Tests of Basic Skills than their normal hearing peers on subtests of reading, language mechanics, word analysis, spelling, and science. The Third National Health and Nutrition Examination Survey also found significant developmental delays of children ages 6–16 years with UHL or minimal

bilateral hearing loss. Those children were twice as likely to score two standard deviations below the normative sample on standardized math and reading tests than children with normal hearing (Ross, Visser, Holstrum, & Kenneson, 2005).

Children with auditory neural hearing loss (auditory neuropathy or auditory dyssynchrony) have been found to have significant delays in communication, speech, spoken or visual language, and psychosocial and literacy development. In general, their developmental profiles are similar to children with sensory deafness/hearing loss (Rance & Barker, 2009; Rance et al., 1999). Children with auditory neural hearing loss represent a complex spectrum of etiologies, sites of lesion, and behavioral characteristics. Future research studies will hopefully provide better understanding of the causes and course of the disorder, the behavioral symptomatology, and appropriate and effective interventions.

Information about children with progressive hearing loss continues to emerge. Yoshinaga-Itano et al. (2010) reported that about one out of every three Colorado children in the severe to profound range at 7 years of age had a history of progression. Lieu, Tye-Murray, Karzon & Piccirillo (2010) reported that 11% of the school-age children with UHL reported a progressive hearing loss. Audiologic monitoring of these children is essential, and appropriate amplification adjustments may need to be made. Additionally, ED approaches may require flexibility as the child's characteristics and needs change when the child's hearing loss progresses.

Very little is known about the developmental outcomes of children with permanent sensorineural and combined conductive hearing losses. Children with mixed hearing loss are likely to be at risk for increased hearing loss in the presence of otitis media. Appropriate amplification fitting and monitoring are required for these children to maintain optimal developmental progress.

[2] Recommendations for Monitoring

 Develop follow-up mechanisms for ongoing monitoring of children with hearing levels that fall outside the range of normal (this could include UHL, hearing levels between 15 and 25 dB HL, and high-frequency, low-frequency, and midfrequency hearing losses). This monitoring also should include follow-up mechanisms for children with chronic, nonpermanent conductive hearing losses (e.g., children with any craniofacial anomaly or Down syndrome) for both hearing levels and communication development.

- 2. Monitor communication development (language, speech, and auditory skills) through appropriate developmental screening protocols every 6 months in the infant/toddler period and every 12 months thereafter.
- 3. Identify the responsible agency or professional and make sure that this surveillance occurs (e.g., either through the medical home or managing physician, the audiologist, or through Part C or a referral back to the EHDI system).
- 4. Determine and designate a provider or system (i.e., Part C) which ensures that developmental screening of communication development and audiologic monitoring occurs.
- 5. Identify the EHDI system as responsible for tracking and surveillance.
- 6. Develop and disseminate information about the use of amplification for children with minimal hearing loss, including UHL, prepared by consulting audiologists with expertise in infants/children.
- 7. Provide families an opportunity for access to visual communication, which may include sign language systems, in addition to listening and spoken language, particularly in light of the percentage of children who progress from normal-mild to severe-profound threshold levels and children with UHL who progress to bilateral deafness/hearing loss.
- 8. Ensure that a child with a conductive hearing loss that has persisted in the first few months of life and remains unresolved by 6 months of age will be referred to ED services to make sure that adequate auditory access to spoken language is available to the child. Amplification should be considered, even if it is temporary, to accomplish this auditory access. Limited

research suggests that children with minimal/mild bilateral hearing loss may not wear hearing aids either because (a) the children reject the amplification, (b) the parents are unable to promote consistent amplification usage, or (c) the parents are themselves not convinced of the benefit of amplification. Surveillance should include parent counseling and evaluation by a speech-language pathologist to monitor progress in language acquisition. This group also includes children with cleft palate or Down syndrome, who are at very high risk for chronic fluctuating middle ear effusion, resultant periods of shifts in hearing thresholds, and altered auditory experience.

[2] Additional Recommendations for Children With UHL

- 1. At a minimum, refer families of children with UHL for consideration of ED enrollment.
- 2. Develop an education and counseling protocol that should be offered to all families, even in instances where the child does not qualify for the state ED services. Ensure that, minimally, ED services include short-term counseling for all families whose children have UHL to promote adjustment to the diagnosis and provide education about how UHL affects daily life and child development.
- 3. Provide educational information to parents covering the following topics:
 - a. Emotional impact of the diagnosis of hearing loss and the impact of the hearing loss on the daily life of the child;
 - b. Information about outcomes of children with unilateral/minimal permanent hearing loss and possibility of language/communication delays;
 - c. Importance of hearing protection for the good ear;
 - d. Impact of chronic otitis media on the hearing status of both ears, as well as the impact of the duration of fluctuating hearing loss in the unaffected good ear;
 - e. Importance of audiologic monitoring of hearing status every 3 to 6 months;
 - f. Importance of monitoring the communication and social-emotional development of the child;

- g. Option, if it exists, of ED services (to prevent delay instead of habilitation after delay is identified);
- h. Communication challenges for children in noisy environments, with localization, and distance listening;
- i. Potential impact on ability to access information through incidental learning;
- j. Access to auditory information and spoken language;
- k. Possible need for access to visual communication in cases of progression or chronic otitis media;
- 1. Potential impact on the social-emotional adaptation of the child.
- 4. Establish a system which makes certain that families will be referred back to state/territory EHDI systems for tracking if they are deemed ineligible for ED services through the state Part C system.
- 5. Encourage primary care physicians to consider a child with UHL "at risk" with the need for ongoing surveillance (such as through the periodicity schedule for the medical home) that includes developmental checks at every medical visit.

[2] Additional Recommendations for Children with Auditory Neuropathy

- 1. Provide the same quality and intensity of services provided to children with sensorineural hearing loss, including the following:
 - a. Assess and monitor the development of every child with auditory neuropathy;
 - b. Develop an individualized treatment plan. A significant proportion of children with auditory neuropathy have secondary physical disabilities including peripheral neuropathies and/or intellectual disabilities (cognitive/developmental delay);
 - c. Provide educational information to parents covering the following topics:
 - 1) potential emotional impact of the diagnosis;
 - 2) variability in performance among children with auditory neuropathy;
 - 3) limited information about developmental outcomes;
 - 4) etiologies that have been found to cause auditory neuropathy;

- 5) stability, fluctuation, progression, or resolution of the hearing loss and/or auditory neuropathy;
- 6) pros and cons related to the use of amplification, including parental access to, and understanding of, issues related to hearing aid, cochlear implant, and/or hearing assistance technology usage provided by consulting audiologists specializing in children;
- 7) importance of audiologic monitoring;
- 8) importance of access to visual communication (e.g., children with auditory neuropathy frequently benefit from visual access to communication; therefore, it is important to have vision assessed, both peripheral and central).
- 2. Provide information about the benefits of multisensory input of language and the need for ongoing comprehensive evaluation of communication, including auditory/spoken language skills, language skills in both visual and auditory modalities, rate of individual progress, and the impact of changes of intervention.
- 3. Ensure availability of immediate counseling services. Adaptation to the diagnosis may be affected negatively by the paucity of research on developmental outcomes for children with auditory neuropathy.

[2] Additional Recommendations for Children With Acquired, Progressive, and Fluctuating Hearing Loss

- 1. Develop follow-through protocols for children with progressive hearing loss and fluctuating hearing loss (otitis media, enlarged vestibular aqueduct, etc.).
- 2. Ensure complete medical/genetic evaluations, including ophthalmologic.
- 3. Audiologically monitor all early-identified children aggressively because of the possibility of changes in hearing thresholds. If progression or fluctuation is documented, children should

be monitored audiologically every 3 months, at a minimum. Some children may need to be monitored more frequently.

- 4. Reassess treatment plans regularly and accommodate for changes in hearing status. In the event that a child is not making progress, there may be a need to increase the intensity of services or change the intervention. This includes regular reassessment of amplification devices to ensure that aided audibility is appropriate for the child's current hearing levels.
- 5. Provide families with counseling related to how the progression or fluctuation (change in child's hearing status) can affect communication, use of amplification, and learning.
- 6. Provide all children who have acquired hearing loss with immediate access to ED services. Children who pass their UNHS and later are confirmed as D/HH can only be identified early if all professionals, especially primary care physicians, take very seriously concerns raised by parents about their child's hearing.

Goal 8: Families will be active participants in the development and implementation of EHDI systems at the state/territory and local levels.

[2] Rationale

Equitable partnerships between families and ED programs and systems are critical to the success of EHDI programs and the achievement of optimal outcomes for children. Parental leadership and involvement are critical to ensuring that the systems of care support a genuine reflection of the day-to-day challenges and opportunities facing families when developing policies and programs (Joint Committee on Infant Hearing, 2007).

Qualified parent leaders are appropriately trained on such topics as advocacy, systems building, parent/professional partnerships, theories of adult learning styles, and parent-to-parent support.

• Parent leaders need to possess the elements of collaboration, that is, mutual respect for skills and knowledge, honest and clear communication, understanding and empathy, mutually

- agreed-upon goals, shared planning and decision making, open sharing of information, accessibility and responsiveness, and joint evaluation of progress.
- Parent leaders need to have the capacity to look beyond their own personal experiences/beliefs to represent a broad community of parents.

[2] Recommendations

- 1. Insert language into policies and legislation related to EHDI programs that requires the meaningful inclusion of qualified families as active participants in the development and implementation of EHDI systems.
- 2. Report the number of professional (i.e., compensated rather than volunteer) parent positions, and demonstrate how parents and families are involved in recruitment processes.
- 3. Provide the resources (professional development training and mentorship) for families to obtain the necessary knowledge and skills to participate in systems and policy development, and demonstrate that the training is provided.

Goal 9: All qualifying families will have access to other families who have D/HH children to receive culturally and linguistically sensitive support, mentorship, and guidance.

[2] Rationale

Given the low incidence of children who are D/HH, their families often feel isolated and do not typically have support opportunities in their already established community. The child's hearing loss affects not only the child but also the parents, siblings, extended family, and community. No one understands this as well as other families with children who are D/HH. There is something incredibly unique and important in receiving support from other parents and families who have D/HH children and have "been there." There is a sense of an equitable relationship between the experienced parent and the referred parent that cannot be duplicated through other dynamics (Ainbinder et al., 1998).

Opportunities to speak one-on-one, chat online, and attend support groups or other activities designed for communicating with other parents and families are a valuable component of the circle of support. National organizations such as the Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell), American Society for Deaf Children (ASDC), Family Voices, and Hands & Voices (and the Hands & Voices "Guide by Your Side" program) have models for providing parent-to-parent support. Support models range from formalized programs in which trained parents embedded in the system provide systematic, knowledgeable support, to the informal matching of families in a given community by professionals who know other families with a similar story.

Families rank parent-to-parent support as one of the strongest forms of family support (Jackson, 2009; Jackson, Wegner, & Trumbull, 2010). Parents reporting participation in social networks with other parents of deaf children had less isolation, greater acceptance of their child, and improved interactional responsivity (Hintermair, 2000).

- 1. Develop and implement guidelines that address family-to-family support. These guidelines should outline the background and training necessary for family providers of support to interact with families of infants/children newly identified as D/HH.
- 2. Provide the necessary training for families/parents who participate in family-to-family support sessions and activities.
- 3. Identify collaborative channels to create sustainable and compensated family-to-family support services.
- 4. Report the number and percentage of families who have had access to appropriate family-to-family supports.

Goal 10: Individuals who are D/HH will be active participants in the development and implementation of EHDI systems at the national, state/territory, and local levels. Their participation will be an expected and integral component of the EHDI systems.

[2] Rationale

Barriers to inclusion of D/HH adults in ED systems include the belief that these individuals are unqualified and biased in their perspectives. Barriers can be overcome when professionals acknowledge, understand, and value the importance of providing D/HH children and their families the opportunity to meet with adults who can share their experiences being D/HH. Adults who are D/HH compose a heterogeneous group of individuals (as do the population of individuals who are hearing). They have a wide range of communication experiences, careers, life perspectives, and educational backgrounds.

Ideally, the goal is to have individuals who are D/HH woven into the fabric of EHDI systems at every level. Individuals who are D/HH know "what works" to meet their language and communication needs in a way that people who are hearing cannot. Since the support of language and communication of babies is intended to be the heart of EHDI systems, it is critical to include D/HH adults in these systems.

Currently, there are few EHDI systems that include D/HH participants in a meaningful way. The system should have a diversity of representation at many levels. D/HH persons should be included, for example, as EHDI directors, EHDI advisory panel chairs and members, administrators, Part C service coordinators, audiologists, speech-language pathologists, pediatricians, counselors, mentors, ASL teachers, ED service providers, educators of the deaf, and in other roles. To achieve these goals, EHDI systems should partner with national, state, and local organizations that support D/HH persons.

[2] Recommendations

1. Insert language into policies and legislation related to EHDI programs that requires the meaningful inclusion of individuals who are D/HH as active participants in the development

and implementation of EHDI systems (e.g., involvement of such individuals in systems will be evident in recruitment processes and in the number of compensated, rather than volunteer, positions filled by individuals who are D/HH).

- 2. Implement professional development training and mentoring systems and provide the resources needed for individuals who are D/HH to obtain the necessary knowledge and skills to participate in systems and policy development.
- 3. Report the number of professional positions filled by individuals who are D/HH at all levels of the EHDI system. D/HH leaders/professionals should be included as employees and professionals in the state ED system of services, and should be compensated with competitive wages.

Goal 11: All children who are D/HH and their families have access to support, mentorship, and guidance from individuals who are D/HH.

[2] Rationale

Research has demonstrated the benefits of providing D/HH children and their families connections to members of the D/HH community. Parents who have many contacts with adults who are D/HH exhibit a strong sense of competence in regard to raising their D/HH child (Hintermair, 2000). Parents who are hearing identify deaf individuals as one of the most important sources of support (after teachers, therapists, and spouses; Meadow-Orlans, Mertens, & Sass-Lehrer, 2003). Children from families who received services from deaf mentors made greater language gains, had considerably larger vocabularies, and scored higher on measures of communication, language, and English syntax than similarly situated children without services from deaf mentors (Watkins et al., 1998). Community members who are deaf are able to provide deaf children with something that parents who are hearing cannot (Chute & Nevins, 2002).

The more interactions that families have with adults who are D/HH, the better they may envision their own child's future, developing goals and dreams that are not limited by misunderstandings

about the lives of people who are D/HH. The goal of the system is to value infants/children who are D/HH for whom they are.

Programs such as D/HH Connections in Colorado involve deaf individuals serving as mentors or role models and interacting with the D/HH child and his or her family as a guide and support, starting at the time the language and communication decision-making process begins. These individuals may share personal experiences or information about being D/HH, educational and communication opportunities, or the Deaf community and Deaf culture. They are available to go into the home, ideally working in close coordination with other ED service providers. They may assist families in meeting IFSP goals. Providing families who are hearing with opportunities to learn more about being D/HH reduces family stress and promotes family support of the child (Calderon & Greenberg, 2003; Hill, 1993).

- 1. Establish a committee composed of a critical mass of members who are D/HH, especially those with experience with ED services and programs, along with representatives from the state EHDI system and ED providers with expertise and skill in providing services to families of D/HH infants and toddlers who will:
 - Develop and implement guidelines that address providing families with access to D/HH individuals who can provide family support. These guidelines should outline the background and training necessary for support personnel/role models who are themselves D/HH to interact with families of infants/children newly identified as D/HH. These systems should guarantee that families have access to the services regardless of audiologic status (hearing levels or type) and the geographic location of the family.
 - Collaboratively identify potential funding mechanisms for sustainable support services to families from individuals who are D/HH.

- Develop a leadership training protocol/curriculum for role models and provide leadership training for identified role model.
- Develop and implement a mentoring and monitoring system for role models.
- 2. Make sure that the individuals who are D/HH represent the diversity of the EHDI population (Deaf culture, hard of hearing, cochlear implant, UHL, auditory neuropathy).

Goal 12: All children who are D/HH and their families are assured of fidelity in the implementation of the intervention they receive.

[2] Rationale

Fidelity of intervention refers to assurance that the intervention provided to the family and child is sufficient to (a) promote a good quality of life for the family and the child; (b) provide strategies for the development of spoken, signed/visual, or multimodal language that are appropriate to the family's choices and the cognitive ability and age of the child; and (c) provide strategies that optimize auditory skill development with the family's chosen technology.

High fidelity of the implementation of intervention requires (a) knowledge of intervention theory and methods, (b) well-defined interventions based on theory and methods, (c) demonstration of intervention procedures, (d) supervised practice, (e) feedback on performance, and (f) data to demonstrate that the intervention strategies result in the desired goals. Ensuring fidelity of implementation includes the following characteristics (Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000):

- linking interventions to improved outcomes (credibility);
- definitively describing operations, techniques, and components;
- clearly defining responsibilities of specific persons;
- creating a data system for measuring operations, techniques, and components;
- creating a system for feedback and decision making (formative);
- creating accountability measures for noncompliance.

Historically, ED providers have not developed systems and programs that document the fidelity of the intervention provided to families and children. A quality ED program should have a process for continuous improvement. Therefore, it is important to establish a means of assessing and monitoring the fidelity of intervention services. This information is key to establishing an empirical evidence base for ED. Without documentation of fidelity, it is difficult to link effective interventions with successful outcomes.

ED for families and infants/children who are D/HH involves a complex interaction of many child, family, background, and intervention factors. This complexity presents formidable challenges for well-defined interventions, training, and measurement of fidelity of these interventions. In essence, little progress has been made. Clear delineation of successful interventions that can ensure replicability are now essential. However, acknowledging that we are in the infant stages of defining and measuring fidelity of intervention, it is critical that the first steps be taken.

No literature currently exists that links the fidelity of the implementation of intervention for children who are D/HH with successful outcomes. However, the extant literature demonstrates that assurance of the fidelity of the implementation of interventions is the key to successful outcomes for children in special education and for medical interventions for both children and adults (Dumas, Lynch, Laughlin, Phillips-Smith, & Prinz, 2001; Gresham et al., 2000; Horner, Rew, &Torres, 2006; Kovaleski, Gickling, & Marrow, 1999; Rowan, Camburn, & Correnti, 2004; Santacroce, Maccarelli, & Grey, 2004). In these studies, positive student outcomes were attributed to three related factors: fidelity of implementation of the process, degree to which the selected interventions were empirically supported, and the fidelity of intervention implementation (at the teacher level).

[2] Recommendations

1. Develop mechanisms and systems to monitor and ensure the fidelity of the ED services received by families who have infants/children who are D/HH. Having developed, approved,

and implemented standards for the knowledge and skills needed by providers of ED services to families and children who are D/HH (see Appendix B), mechanisms to measure the application of these skills in intervention are required. The most effective means of monitoring the fidelity of intervention is through direct observation and ongoing mentorship.

- 2. Identify a critical core group of "experts." Trainer-of-trainer and peer mentoring models can provide support to ED providers from professionals with the greatest experience, knowledge, and skills.
- 3. Monitor the fidelity of intervention through direct observation by a highly qualified, experienced ED provider/supervisor. A program of mentorship could be developed with an "expert" through consultation with individual ED providers. Tele-education/health technology can be used for this purpose. Laptop computers with voice and video communication technology (e.g., Skype) can also provide expert observation and real-time mentoring.
- 4. Provide mentorship through input on lesson goals and planning.
- 5. Encourage and support professional development of ED providers.
- 6. Conduct self-assessments of ED providers to identify their perceptions of strengths and weaknesses related to the guidelines established in Goal 3 (see Appendix B). The goal of these self-evaluation instruments of ED providers is to identify perceived programmatic strengths and weaknesses and provide professional development in the areas of perceived weakness.
- 7. Measure the progress of ED providers on their knowledge and skills at regular intervals (Sexton, Snyder, Lobman, Kimbrough, & Matthews, 1997). Gresham et al. (2000) provided information about how to monitor the quality of interventions.

8. Obtain parents' input about the skills that they have learned through ED services and their perceptions about the effectiveness of these skills in promoting successful outcomes for their children. Questions should not be about parents' satisfaction but about information they have learned through ED services (Young, in press).

[1] Summary and Conclusion: Benchmarks

We recommend collecting data on each of the following recommended guidelines. Our benchmark for all of these is 90% or more of the children/families in each state/territory.

- All state/territories will have a coordinated system of access to ED services. The system provides timely access (to ensure completion of an IFSP within 45 days of referral) to ED professionals who have knowledge and skills necessary for successful developmental outcomes of D/HH children and the capability of tracking individual children from confirmation that a child is D/HH to developmental outcomes in ED services.
 - Children/families are referred to ED services within 48 hours of confirmation that a child is D/HH.
 - o IFSPs are completed within 45 days of referral from diagnosis.
 - All states/territories indicate that they have an annually updated resource manual that is made available and disseminated to all families with newly identified infants/children who are D/HH. States/territories regularly evaluate the comprehensiveness and quality of the information provided in the resource manual.
- Children/families have timely access to service coordinators who have the core knowledge and skills to fulfill the legal requirements of Part C (helping parents obtain services, coordinating services, facilitating the timely delivery of services, and continuously seeking the appropriate services) and the requisite knowledge and skills unique to working with children, from birth to 3 years of age, who are D/HH and their families.

- All children who are D/HH from birth to 3 years of age and their families have ED providers
 who have the professional qualifications and core knowledge and skills to optimize their
 development and well-being.
 - Each state and territory has a statement of professional qualifications for providers within
 2 years of the publication of this document.
 - o All providers meet the professional qualifications.
 - States and territories have a statement of the systematic professional development program for ED professionals working with families who have infants/children who are D/HH within 5 years of the publication of this document.

Two areas have been identified as needing specialized skills in addition to the general knowledge and skills required by providers.

Sign language instructors. States and territories report percentage of families and their children who are able to access ASL acquisition opportunities from a skilled fluent ASL user. All programs will have trained and skilled ASL instructors who utilize effective ASL learning programs for families with young children who are D/HH.

Listening and spoken language. States and territories will make certain that the professionals providing listening and spoken language services have the knowledge and skills that will facilitate the development of these skills for families who choose these objectives.

Other specialized methods. States and territories will make certain that the intervention providers have the knowledge and skills to teach integrated systems of visual communication and listening/spoken language.

- States report that they have developed a system ensuring parent participation in the development and implementation of EHDI policies and procedures.
 - o All families report that they have access to ongoing parent-to-parent support.

- States report that they have developed and implemented a system ensuring participation of individuals who are D/HH in the development and implementation of EHDI policies and procedures.
 - All families report that they have access to a multitude of professionals/individuals who
 are themselves D/HH in a variety of different roles.
- States/territories develop fidelity monitoring systems and set the goal to begin implementation within 5 years from the publication of this document.
 - o Intervention services for families and children who are D/HH are monitored for fidelity of implementation.
- Children who are D/HH have their development monitored annually, allowing the state to determine progress toward meeting the developmental outcome goals of EHDI.
- States/territories have a system for determining whether EI professionals working with children who are D/HH with additional disabilities have the skills and knowledge necessary to promote successful or optimal/appropriate developmental outcomes for these children and their families.
- Professionals receive ongoing in-service education on developmental disabilities (e.g., motor, vision, autism, or cognition) and have access to specialists/team members who are qualified to address the specialty areas needed by the child. IFSPs and individualized education programs include the interdisciplinary services needed to address the broad spectrum of needs presented by children who are D/HH and have additional disabilities.
- States/territories must be able to report the number and percentage of families who have D/HH children in nonnative English homes and identify the home language.

• States and territories have developed protocols of care for families who do not speak English and/or are culturally diverse, as well as a data management system for monitoring, with a goal of implementation within 5 years of the publication of this document.

[1]Acknowledgments

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APPENDIX A: Knowledge and skills of early development providers

This appendix includes a listing of broad competencies (knowledge and skills) related to the provision of early development services for children who are deaf or hard of hearing and their families. These competencies, compiled from eight different best practice and position statement documents, are the core competencies recommended for early development providers. The compilation of these core competencies recognizes that early development providers come from diverse professions (e.g., audiology, early childhood special education, educators of the deaf or hard of hearing, and speech-language pathology). Although organized into sections by content area, the competencies are intended to be considered as an entire set of practices needed to work with this group of children and families. For example, specific knowledge and skills having to do with cultural competency are incorporated throughout various sections in the document.

The following original documents were reviewed to develop the tables:

- AG Bell Listening and Spoken Language Specialists Core Competencies http://agbell.org/NetCommunity/document.doc?id=19
- American Speech-Language-Hearing Association (ASHA)/Council on Education of the Deaf—Service Provision to Children Who Are Deaf and Hard of Hearing, Birth to 36 Months
 - www.asha.org/docs/html/TR2008-00301.html
- 3. ASHA—Roles and Responsibilities of Speech-Language Pathologists in Early Intervention: Guidelines
 - www.asha.org/docs/html/GL2008-00293.html
- Conference of Educational Administrators of Schools and Programs for the Deaf—Early Intervention Programs Position Paper www.ceasd.org/position papers.shtml
- 5. Joint Committee on Infant Hearing (2007)
 - —www.jcih.org/posstatemts.htm

- 6. Marge and Marge (2005)
 http://www.upstate.edu/pmr/research/beyond_newborn.pdf
- 7. National Association of the Deaf—*Early Intervention for Infants and Toddlers* www.nad.org/issues/early-intervention
- 8. Compton, Niemeyer, and Shroyer (2001) http://center.uncg.edu/standards.pdf

Note: The tables were developed/compiled by A. Stredler-Brown, M. Sass-Lehrer, K. Clark, and M. P. Moeller (2009).

A. Family-Centered Practice: Family-professional partnerships, decision making, and family support Providers have the knowledge and skills to:	Number of Best Practice Documents Including Skill Area (Out of 8)
Recognize the expertise and major impact of families on children's growth and development	5
2. Understand family systems and family dynamics	3
3. Establish respectful reciprocal relationships with families	5
4. Use appropriate and effective active listening with families and other professionals	3
5. Facilitate families' identification of concerns, priorities, and resources	5
6. Implement strategies to promote infant–caregiver relationships and interactions	4
7. Promote access to family-to-family support networks	5
8. Support family health and emotional well-being	3
9. Identify risks for abuse/neglect situations	2
10. Provide support and recognize signs indicating the need to refer for counseling/therapy or other emotional support from specialists	3
11. Support the development of family members' skills for collaboration with the early development team	6
12. Promote family involvement in all aspects of intervention	6
13. Promote family members' informed decision making through provision of accurate and understandable information, resources, and support	4
14. Implement strategies for guiding and supporting families' decisions regarding communication approaches/opportunities	5
15. Encourage family advocacy skills	6
16. Monitor family satisfaction with intervention services	2

	Socially, Culturally, and Linguistically Responsive Practices Including Deaf/Hard of Hearing Cultures and Communities: Sensitivity to and respect for an individual family's characteristics	Number of Best Practice Documents Including Skill Area
1.	Understand the diversity of families, languages, cultures, and communities	8
2.	Understand the implications of socioeconomic and cultural differences in child rearing	5
3.	Demonstrate sensitivity to cultural, religious, ethnic, disability, gender, socioeconomic, linguistic, and geographic influences on children and families	3
4.	Demonstrate understanding of and respect for Deaf culture and for Deaf and hard-of-hearing communities	5
5.	Understand the role and resources of the Deaf community, sign language interpreters, and cultural brokers	6
6.	Appreciate the roles and access the resources of interpreters and cultural brokers when working with non-English-speaking families	2
7.	Promote family's understanding and appreciation of being deaf or hard of hearing	
8.	Appreciate and respect cultural perspectives on selection and use of technologies	2
9.	Implement culturally sensitive approaches	8

C.	Language Acquisition and Communication Development: Typical development, communication approaches available to children with hearing loss, and impact of hearing loss on access to communication	Number of Best Practice Documents Including
Pro	oviders have the knowledge and skills to:	Skill Area
1.	Understand developmental sequences across developmental domains and their complex interactions with communication	5
2.	Understand the influence of variables such as age of identification and intervention on language (English and other spoken languages, as well as American Sign Language [ASL]) and speech acquisition	3
3.	Understand the effects of multiple language exposure on children's development (i.e., bilingualism in spoken languages and in ASL), drawing on current theories of bilingualism	2
4.	Understand the impact of hearing loss on communication, language, and speech	4
5.	Promote the important role of caregivers in development of communication skills through caregiver–child interaction	8
6.	Understand typical development sequences in auditory and visual perception	6
7.	Understand the array of communication approaches (e.g., ASL, bilingual-bicultural, auditory/oral, auditory/verbal, cued speech, and simultaneous communication) and resources for observing and demonstrating them	6
8.	Understand augmentative communication approaches and circumstances in which they should be considered	1
9.	Understand the importance of involving deaf and hard of hearing adults in the promotion of children's language and social development	4
10.	Provide families and children with access to skilled and experienced professionals to facilitate language development using language and communication modalities selected by the family and appropriate for the child	3
11.	Coach families in the use of strategies that promote a language-rich learning environment to facilitate language, thought, and early literacy	8
12.	Promote families' understanding of the relationships among communication, language, and speech	2

13. Assess prelinguistic and early linguistic communication development	4
14. Understand communication and language assessment outcomes with reference to typical developmental sequences and stages of spoken language development	7
15. Understand communication and language assessment outcomes with reference to typical developmental sequences and stages of ASL for families using this approach	4
16. Promote development of phonology, morphology, syntax, semantics, and pragmatics of spoken language and/or ASL	1
17. Implement strategies to promote auditory learning in children who are deaf/hard of hearing	5
18. Implement strategies to promote visual language learning in children who are deaf/hard of hearing	
19. Embed goals within daily routines and integrate communication in a variety of social, linguistic, and cognitive contexts	6
20. Implement strategies that promote access to language using multiple modalities	3
21. Implement current practices for promoting auditory development for children with cochlear implants	2
22. Implement evidence-based communication practices with young children to facilitate child learning within developmentally appropriate daily activities	3
23. Monitor language outcomes to guide intervention and promote age- appropriate development	5

D.	Factors Influencing Infant and Toddler Development	Number of Best
Pro	viders have the knowledge and skills to:	Practice Documents Including Skill Area
1.	Differentiate the characteristics and stages of typical/atypical development	7
2.	Appreciate the range of individual differences in development and factors that influence them	6
3.	Recognize the effects of prenatal care, prematurity, health, and other biological conditions on development	2
4.	Be aware of the health needs of young children and collaborate with the medical community to address them	8
5.	Understand contemporary infant development theories including research on brain development	2
6.	Demonstrate sensitivity to infant states/cues and understand how responses contribute to infant development in child rearing	2
7.	Understand bonding/attachment theories and implications for development	1
8.	Monitor stages of cognitive development and recognize the impact of cognitive delays on learning	3
9.	Recognize the impact of multiple disabilities on development and collaborate with the appropriate developmental specialists	4
10.	Understand the interdependence of developmental domains	4
11.	Understand the influences of family, culture, and environment on infant development	7
12.	Understand auditory, visual, and cross-modal perception and processing in relation to development	5
13.	Recognize the role of play and daily routines in development	4
14.	Locate current evidence and resources related to contemporary studies of infant development	4
15.	Facilitate infant/toddler engagement	2
16.	Develop and implement age-appropriate interventions supportive of development in all domains and reflective of individuals' interests	5

E.	Screening, Evaluation, and Assessment: Interpretation of hearing screening and audiologic diagnostic information, ongoing developmental assessment, and use of developmental assessment tools to monitor progress	Number of Best Practice Documents Including Skill Area
	Providers have the knowledge and skills to:	
1.	Distinguish between screening, observation, evaluation, and assessment	3
2.	Understand and facilitate referral processes (including screening and evaluation)	2
3.	Understand implications of universal newborn hearing screening for families and early development services	2
4.	Understand newborn hearing screening protocols (including instrumentation) and appropriately interpret screening results	2
5.	Understand pediatric audiologic procedures (including evaluation and interventions) and accurately interpret audiologic results	3
6.	Promote and provide input to appropriate audiologic and developmental evaluation procedures	3
7.	Understand atypical development etiologies and diagnoses, and refer for medical-genetic evaluation	4
8.	Know current cochlear implant candidacy criteria	3
9.	Know how to gather information from families that identifies their priorities, concerns, and resources related to their child's development	3
10.	Know the risk factors for late onset and progressive hearing loss and implement appropriate surveillance and referral strategies	
11.	Recognize strengths and limitations of standardized developmental assessments and adaptations for a child who is deaf/hard of hearing	1
12.	Use assessment tools and strategies that are culturally, linguistically, and developmentally appropriate	3
13.	Understand and participate in interdisciplinary, transdisciplinary, and multidisciplinary assessment procedures and processes	2
14.	Implement assessment strategies that support family participation and involvement	2

15. Implement principles/processes to appropriately assess the child in natural environments	4
16. Monitor child progress using appropriate tools and procedures	6
17. Convey assessment and evaluation results and recommendations in a manner that is understandable, accessible, culturally sensitive, and confidential	5

F. Technology: Supporting development by using technology to acce auditory, visual, and/or tactile information Providers have the knowledge and skills to:	SS Number of Best Practice Documents Including Skill Area
 Recognize the importance of the use of technology to access audition 	itory, 6
2. Recognize benefits and challenges of technology use with infants across multiple settings and activities	3
 Be knowledgeable about current augmentative communication technologies and their application with infants with multiple spec needs 	ial 1
4. Identify sources for obtaining assistive technology, information, funding, and support	3
 Implement strategies to support families' abilities to use and mor effectiveness of technology 	nitor 5
Promote family skills in monitoring amplification and ensuring de- retention and safety	vice 5
7. Promote family learning and involvement using technology in hor and community settings	me 2

G	Planning and Implementation of Services: Creating a lesson plan, conducting a home visit, developing the individualized family service plan (IFSP), and using appropriate curriculums, methods, and resources Providers have the knowledge and skills to:	Number of Best Practice Documents Including Skill Area
1.	Implement best practices related to the process of developing IFSPs and individualized education programs (IEPs)	7
2.	Collaborate with families to develop and implement the IFSPs as working documents	4
3.	Plan and implement assessment-based instruction	3
4.	Select and systematically implement intervention strategies appropriate to the communication (listening, speech, and/or sign language) and emerging literacy needs of the child	2
5.	Revise intervention approaches as needed in response to the child's progress and the family's	6
6.	Plan and implement effective family–child sessions in natural environments	5
7.	Plan and implement center-based sessions (e.g., play groups and peer groups) lesson plans	1
8.	Participate in the planning and implementation of workshops/meetings for families	

Н	Collaboration and Interdisciplinary Models and Practices Providers have the knowledge and skills to:	Number of Best Practice Documents Including Skill Area
1.	Recognize the roles and responsibilities of families and other individuals with expertise in deafness	6
2.	Collaborate with professionals across disciplines and with families	6
3.	Recognize the roles and the importance of service coordination and the medical home	4
4.	Promote collaboration with community programs and resources to support families and children	4
5.	Recognize intra/interpersonal variables that influence the development of collaborative relationships with parents and professionals	5
6.	Utilize principles and strategies that recognize family members and professionals as adult learners	4
7.	Implement collaborative strategies to communicate, make decisions, solve problems, and resolve conflicts	3
8.	Provide a continuum of service delivery models to meet the needs of individual children and family members (e.g., direct service, collaborative consultation, or playgroup-based)	1
9.	Assume a leadership role to promote collaboration (e.g., self-evaluation, mentoring, networking, and advocacy)	3

I.	Professional and Ethical Behavior: Fundamentals of early development practice, legislation, policies, and research Providers have the knowledge and skills to:	Number of Best Practice Documents Including Skill Area
1.	Understand the history of deaf education, the foundations of early development services, and the principles of child/family advocacy	4
2.	Understand early hearing detection and intervention programs and processes	1
3.	Understand the Individuals with Disabilities Education Act (IDEA), federal legislation, and federal regulations related to infants/toddlers and their families	3
4.	Recognize IDEA's support for program evaluation and system change and the limitations of the law	2
5.	Support the rights, responsibilities, and confidentiality of children and their families	5
6.	Understand the role of service coordination and assist families in linking with this service	2
7.	Plan and implement seamless transitions to ensure continuity of services across educational and community placements	5
8.	Apply principles of evidence-based practice and be conversant about current research related to early development services	4
9.	Adhere to professional ethical standards in working with young children, families, and professionals	4
10.	Assume personal responsibility for demonstrating a positive attitude toward infants, toddlers, and families	1
11.	Use critical thinking and reflection, and pursue lifelong learning through ongoing professional development	4

APPENDIX B: Example of fidelity of intervention monitoring

LISTENING AND LANGUAGE SELF-CHECKLIST FOR COLORADO HOME INTERVENTION PROGRAM (CHIP) FACILITATORS (DEVELOPED BY NANETTE THOMPSON)

AUDITORY SKILL DEVELOPMENT

- ✓ Did I do a version of the Ling 6+ Sound Test? Did I reemphasize the importance of consistency of use of hearing aids/implants throughout all waking hours? Did I do a listening check of amplification?
- ✓ Did I incorporate music, nursery rhymes, or singing into the session?
- ✓ Did I demonstrate high expectations for auditory skill development in daily routines and natural environments? Did I encourage a variety of listening activities including recorded music or books on tape?
- ✓ Did I provide opportunities to listen in a variety of environments including with varying distances and in quiet and noisy environments?
- ✓ Did I encourage the family to organize the environment to maximize the auditory potential of the child? (Decrease background noise, turn off the TV, close the doors to the laundry room, etc.)

LANGUAGE DEVELOPMENT

- ✓ Did I use literature in the session or reference activities that encourage early literacy skill development?
- ✓ Did I model expanding the child's spontaneous language and discuss the importance of this strategy with the parent? Did I use the Plus 1 rule?
- ✓ Did I reward all attempts at communication?
- ✓ Did I focus on the development of language through listening? Did I remind the parent to talk to the child throughout daily activities?

SPEECH SOUND PRODUCTION

- ✓ Did I expect, encourage, and elicit verbal responses within all activities?
- ✓ Did I use acoustic highlighting to facilitate speech sound production?
- ✓ Did I note any speech errors and understand them to be developmental, phonological, motor-related, or hearing-related in nature?

TECHNIQUES, STRATEGIES, AND COMMUNICATION

- ✓ Did I provide commentary for parents of my session objectives and my observations?
- ✓ Did I demonstrate scaffolding a skill up and down to ensure the child's success and discuss that important process with the parent?
- ✓ Did I provide enough pause time and encourage the parents to do so as well?
- ✓ Did I brainstorm with the parent ways to incorporate these strategies and objectives into their daily routines?
- ✓ Did I follow up with other professionals working with the child?
- ✓ Did I leave the parent feeling empowered and motivated for the upcoming week?