

JOINT COMMITTEE ON INFANT HEARING

2007 Principles and Guidelines for EHDI Programs		Progress on Implementation				Importance	Feasibility	Priority
		<25%	25-50%	51-75%	>76%	L, M, H	L, M, H	
A1.	All infants should have access to hearing screening using a physiologic measure at no later than 1 month of age.							
A1.1	All babies admitted for greater than 5 days are to have auditory brainstem response (ABR) included as part of their screening so that neural hearing loss will not be missed.							
A1.2	For infants who do not pass automated ABR in the NICU, referral should be made directly to an audiologist for rescreening and, when indicated, comprehensive evaluation including ABR.							
A1.3	For rescreening, a complete screening on both ears is recommended, even if only one ear failed the initial screening.							
A1.4	For readmissions in the first month of life for all infants (NICU or well baby) when there are conditions associated with potential hearing loss (e.g., hyperbilirubinemia requiring exchange transfusion or culture-positive sepsis), a repeat hearing screening is recommended before discharge.							
A2.	All infants who do not pass the initial hearing screening and the subsequent rescreening should have appropriate audiological and medical evaluations to confirm the presence of hearing loss at no later than 3 months of age.							
A2.1	Audiologists with skills and expertise in evaluating newborn and young infants with hearing loss should provide audiology diagnostic and auditory habilitation services (selection and fitting of amplification device).							
A2.2	At least one ABR test is recommended as part of a complete audiology diagnostic evaluation for children younger than 3 years for confirmation of permanent hearing loss.							
A2.3	The timing and number of hearing re-evaluations for children with risk factors should be customized and individualized depending on the relative likelihood of a subsequent delayed-onset hearing loss. Infants who pass the neonatal screening but have a risk factor should have at least 1 diagnostic audiology assessment by 24 to 30 months of age. Early and more frequent							

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assessment may be indicated for children with cytomegalovirus (CMV) infection, syndromes associated with progressive hearing loss, neurodegenerative disorders, trauma, or culture-positive postnatal infections associated with sensorineural hearing loss; for children who have received ECMO or chemotherapy; and caregiver has a concern or a family history of hearing loss.							
A3. All infants with confirmed permanent hearing loss should receive early intervention services as soon as possible after diagnosis but at no later than 6 months of age. A simplified, single point of entry into an intervention system that is appropriate for children with hearing loss is optimal.							
A4. The Early Hearing Detection and Intervention (EHDI) system should be family centered with infant and family rights and privacy guaranteed through informed choice, shared decision-making, and parental consent in accordance with state and federal guidelines. Families should have access to information about all intervention and treatment options and counseling regarding hearing loss.							
A5. The child and family should have immediate access to high-quality technology including hearing aids, cochlear implants, and other assistive devices when appropriate.							
A6. All infants and children should be monitored for hearing loss in the medical home. Continued assessment of communication development should be provided by appropriate professionals to all children with or without risk indicators for hearing loss.							
A6.1 The birth hospital, in collaboration with the state EHDI coordinator, should ensure that the hearing screening results are conveyed to the parents and the medical home.							
A6.2 Parents should be provided with appropriate follow-up and resource information, and hospitals should ensure that each infant is linked to a medical home.							
A6.3 Information at all stages of the EHDI process is to be communicated to the family in a culturally sensitive and understandable format.							

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A6.4	Individual hearing screening information and audiology diagnostic and habilitation information should be promptly transmitted to the medical home and the state EHDI coordinator.							
A6.5	For all infants, regular surveillance of developmental milestones, auditory skills, parental concerns, and middle ear status should be performed in the medical home, consistent with the American Academy of Pediatrics (AAP) pediatric periodicity schedule. All infants should have an objective standardized screening of global development with a validated assessment tool at 9, 18, and 24 to 30 months of age or at any time if the health care professional or family has concern.							
A6.6	Infants who do not pass the speech-language portion of a medical home global screening or for whom there is a concern regarding hearing or language should be referred for speech-language evaluation and audiology assessment							
A7.	Appropriate interdisciplinary intervention programs for infants with hearing loss and their families should be provided by professionals who are knowledgeable about childhood hearing loss. Intervention programs should recognize and build on strengths, informed choices, traditions, and cultural beliefs of the families.							
A8.	Information systems should be designed and implemented to interface with electronic health charts and should be used to measure outcomes and report the effectiveness of EHDI services at the patient, practice, community, state, and federal levels.							
8.1	States should implement data-management and tracking systems as part of an integrated child health information system to monitor the quality of EHDI services and provide recommendations for improving systems of care.							
8.2	An effective link between health and education professionals is needed to ensure successful transition and to determine outcomes of children with hearing loss for planning and establishing public health policy.							

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2013 Supplement to the 2007 Principles & Guidelines for EHDI Programs		Progress on Implementation				Importance	Feasibility	Priority
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1.	All children who are Deaf/Hard of Hearing (D/HH) and their families have access to timely and coordinated entry into early intervention programs supported by a data management system capable of tracking families and children from confirmation of hearing loss to enrollment into early intervention services.							
1.1	Share a baseline analysis of EHDI follow-up statistics with part C to establish collaboration and to identify system gaps or needs regarding statistics to be reviewed, such as (1) confirmation/identification of children who are D/HH and (2) their enrollment in EI services.							
1.2	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							
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.							
2.1	Develop or adapt qualifications for service coordinators who contact families after confirmation that their child is D/HH.							
2.2	Identify the core knowledge and skills for service coordinators on the basis of evidence-based practices and the recommendations of professional organizations and national policy initiatives.							
2.3	Identify the number and percentage of families who had timely access to a service coordinator with skills and expertise related to children who are D/HH and their families.							
3.	All children who are D/HH from birth to 3 years of age and their families have early intervention providers who have the professional qualifications and core knowledge and skills to optimize the child’s development and child/family well-being.							
3.1	Adopt and implement guidelines that address the professional qualifications required for providing							

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	family-centered EI to families and children who are D/HH from birth to age 3 addressing educational background and core knowledge and skills for providers of EI services in areas, including developmental, educational, and communication/language.							
3.2	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, EI direct service providers with core knowledge and skills serving children who are D/HH from birth to age 3, parents/ caregivers with children who are D/HH, and adults who are D/HH with a background in a related area.							
3.3	Provide the resources needed for professionals to obtain the core knowledge and skills to serve children who are D/HH from birth to age 3 and their families.							
3.4	Following the approved guidelines, identify the number and percentage of EI providers who have the appropriate core knowledge and skills and who are currently providing services to families with infants/children who are D/HH.							
3.5	Identify the number and percentage of EI providers who do not meet the qualifications required but participate in professional development activities specific to EI services and children who are D/HH each year.							
3.6	Regularly monitor progress toward this goal by annually identifying the number of families who are receiving EI services from professionals with core knowledge and skills as determined by the state-developed qualification system.							
3a.	Intervention services to teach American Sign Language (ASL) will be provided by professionals who have native or fluent skills and are trained to teach parents/families and young children.							
3.1a	Ensure that families have complete and accurate information about ASL.							

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3.2a	Identify collaborative partners who can assist in the development of statewide systems capable of providing competent sign language instruction to families and infants/children.							
3.3a	Establish a representative committee that develops guidelines related to the qualifications of sign language instructors.							
3.4a	Conduct a needs assessment to determine (1) the number of available sign language instructors with the qualifications in sign language and family/infant education and (2) available funding sources.							
3.5a	Develop systems that ensure that neither geographic location nor socioeconomic status limits access to competent and skilled sign language instructors. State systems should consider utilization of all technology, including computer and videophones, to support teaching families.							
3.6a	Establish and conduct training for ASL instructors that includes strategies and techniques for teaching sign language to families of infants and toddlers.							
3.7a	Establish a quality assurance program for ASL instructors of parents/families.							
3.8a	Conduct a needs assessment to determine the number of professionals (compensated or volunteer) with the qualifications and skills required to serve as an ASL instructor for families/parents of infants.							
3.9a	Ensure that ASL instructors can accept, without judgment, a family's use of their sign language skills with or without spoken language.							
3b.	Intervention services to develop listening and spoken language will be provided by professionals who have specialized skills and knowledge.							
3.1b	Ensure that families have complete and accurate information about listening and spoken language development.							

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3.2b	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.							
3.3b	Establish qualifications of EI service providers with the core knowledge and skills to develop listening and spoken language.							
3.4b	Conduct a needs assessment to determine the number of available EI providers with the qualifications and skills required for developing listening and spoken language with infants who are D/HH.							
3.5b	Develop systems and ensure that neither geographic location nor socioeconomic status limits access to competent EI providers with knowledge and skills in developing listening and spoken language. State systems should consider utilization of all technology, including computer and videophones, to support teaching families.							
3.6b	Establish and conduct training for EI providers to increase their skills in providing listening and spoken language development.							
3.7b	Establish an evaluation of the skills and knowledge of EI providers in their delivery services for listening and spoken language.							
3.8b	Ensure that the EI 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.							
3.9b	Ensure that EI providers can accept, without judgment, 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.							
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							

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skills to support and promote optimal developmental outcomes.								
4.1	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: visual, intellectual, or emotional/behavioral disability; fine and gross motor delays with or without cerebral palsy; autism spectrum disorder; sensory processing disorder; and craniofacial or neurodegenerative disorders or brain malformations.							
4.2	Develop a system with the ability to track children who are D/HH with additional disabilities regardless of the primary disability 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).							
4.3	Ensure that the developmental monitoring protocol is adaptive and sensitive to any restrictions in performance that are due to the additional disability and that would significantly underestimate the abilities and skills of the child.							
4.4	Implement models of transdisciplinary services, making certain that families who have children with multiple disabilities have access to EI services that meet the needs of the child and family in all developmental domains.							
5.	All children who are D/HH 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.							
5.1	Identify the number of families who speak or sign a language other than English in the home and the percentage of families using non-English languages by native language.							
5.2	Identify the number of families who speak English and are culturally diverse, including the							

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	areas of cultural diversity (African American, Hispanic/Latino, Asian American or South Pacific Islander, or American Indian/Native American).							
5.3	Develop a plan for ensuring access to information for families whose native language is not English that is comparable to information provided to native English-speaking families by providing resources in the family's home language or languages.							
5.4	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 or languages), "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 EI curricula specific to families with children who are D/HH.							
5.5	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 considered offensive by other cultures, avoidance of cultural stereotypes, and different cultural expectations of medical, allied health, and educational professionals. Training should also include beliefs about being D/HH not as a disability but as a cultural/linguistic difference.							
5.6	Monitor the developmental progress of 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 EI programs to assist families in monitoring their child's progress and determining whether the							

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choices made are facilitating success in communication for their child who is D/HH.							
6. All children who are D/HH should have their progress monitored every 6 months from birth to 36 months of age, through a protocol that includes the use of standardized, norm-referenced developmental evaluations, for language (spoken and/or signed), the modality of communication (auditory, visual, and/or augmentative), social-emotional, cognitive, and fine and gross motor skills.							
6.1 Monitor the developmental progress of all infants identified through universal newborn hearing screening (UNHS) on a consistent schedule, every 6 months through 36 months and annually thereafter, to ensure that children are making appropriate progress.							
6.2 Develop a statewide 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 EI 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., in collaboration with 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.							
6.3 Develop a collaborative sharing network capable of collecting developmental data for progress monitoring at regular intervals including data reporting to the EHDI database.							
7. All children who are identified with hearing loss of any degree, including those with unilateral or slight hearing loss, those with auditory neural hearing loss (auditory neuropathy), and those with progressive or fluctuating hearing loss, receive appropriate monitoring and immediate follow-up intervention services where appropriate.							

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7.1	Refer all children with unilateral or bilateral hearing loss to EI for evaluation and consideration of enrollment. If the child does not qualify for state EI services, ensure that families are provided with access to information and counseling regarding their child's hearing loss and the potential impact of hearing loss on the child's daily life and communication development.							
7.2	Develop follow-up mechanisms for ongoing monitoring of hearing, speech/language, and communication for all children with hearing levels that fall outside the range of normal in one or both ears, regardless of the etiology of the hearing loss. This monitoring should include follow-up mechanisms for children with chronic, nonpermanent conductive hearing losses.							
7.3	Monitor communication development (receptive and expressive language, speech, and auditory skills) through appropriate developmental screening protocols every 6 months in the infant/toddler period and every 12 months thereafter.							
7.4	Identify the agency or professional responsible for surveillance and make sure that surveillance occurs (e.g., either through the medical home or managing physician, the audiologist, part C, or a referral back to the EHDI system).							
7.5	Determine and designate a provider or system (e.g., part C, EHDI, primary care physician, parent/family) that ensures that developmental screening of communication, audiologic monitoring, tracking, and surveillance occurs, especially if the child has been deemed ineligible for EI services through the state part C system.							
7.6	Develop and disseminate information about the use of amplification for children with hearing loss prepared by consulting audiologists with expertise with infants/children.							
7.7	Provide families with an opportunity for access to							

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visual communication, which may include sign language systems, in addition to listening and spoken language, particularly in light of the possibility/probability of progressive hearing loss.							
7.8 Ensure that a child with a conductive hearing loss that has persisted in the first few months of life and remains for 6 months will be referred to EI services and otologic specialty care to make sure that adequate auditory access is available to the child.							
7.9 Consider amplification, if the hearing loss has remained for 6 months even if it is temporary, to accomplish this auditory access. This group also includes children with cleft palate or Down syndrome, who are at very high risk for chronic fluctuating middle ear effusion.							
7.10 Surveillance should include parent/family counseling and evaluation by a speech-language pathologist to monitor progress in speech and language acquisition.							
7.11 <i>Limited research suggests that children with minimal/mild bilateral hearing loss may not wear hearing aids either because (1) the children reject the amplification, (2) the parents/family are unable to promote consistent amplification usage, or (3) the parents/family are themselves not convinced of the benefit of amplification.</i>							
7.12 Provide educational information to parents/family.							
7.13 Encourage primary care physicians to recognize the need for ongoing audiologic surveillance in all children, particularly those with risk factors for delayed-onset/progressive hearing loss, or those children whose hearing loss is already being treated with hearing aid amplification. This surveillance should include developmental checks consistent with the American Academy of Pediatrics Periodicity Schedule, or more frequently if concerns are raised regarding hearing or development.							

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8.	Families will be active participants in the development and implementation of EHDI systems at the state/territory and local levels.							
8.1	Develop or revise policies and legislation related to EHDI programs that require the meaningful inclusion of qualified families as active participants in the development and implementation of EHDI systems.							
8.2	Report the number of professional family positions (ie, compensated rather than volunteer) and demonstrate how parents and families are involved in recruitment processes.							
8.3	Provide 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 training is provided.							
9.	All families will have access to other families who have children who are D/HH and who are appropriately trained to provide culturally and linguistically sensitive support, mentorship, and guidance.							
9.1	Develop and implement guidelines that address family-to-family support. These guidelines should outline the background and training necessary for family support providers to interact with families of infants/children newly identified as D/HH, including the importance of objective, unbiased information.							
9.2	Provide the necessary training for families/parents who participate in family-to-family support sessions and activities.							
9.3	Identify collaborative channels to create sustainable and compensated family-to-family support services.							
9.4	Report the number and percentage of families who have had access to appropriate family-to-family supports.							
10.	Individuals who are D/HH will be active participants in the development and implementation of EHDI systems at							

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	the national, state/territory, and local levels; their participation will be an expected and integral component of the EHDI systems.							
10.1	Develop or revise policies and legislation related to EHDI programs to require inclusion of individuals who are D/HH and who represent a diverse range of communication, educational, amplification technology, and life experiences 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).							
10.2	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.							
10.3	Report the number of professional positions (e.g., compensated and volunteer) filled by individuals who are D/HH at all levels of the EHDI system.							
11.	All children who are D/HH and their families have access to support, mentorship, and guidance from individuals who are D/HH.							
11.1	Establish an advisory group composed of a critical mass of members who are D/HH, especially those with experience with EI services and programs, along with representatives from the state EHDI system and EI providers with expertise and skill in providing services to families of infants and toddlers who are D/HH.							
11.2	Make sure that the individuals who are D/HH represent the diversity of the EHDI population (eg, deaf culture, hard of hearing, cochlear implant and hearing aid users, unilateral hearing loss, auditory neural hearing loss, cultural diversity).							
12.	As best practices are increasingly identified and implemented, all children who are D/HH and their							

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families will be ensured of fidelity in the implementation of the intervention they receive.							
12.1 Develop and advance mechanisms and systems to assess and monitor the fidelity of the EI services received by families who have infants/children who are D/HH.							
12.2 Identify a critical core group of experts. Trainer-of-trainer and peer mentoring models can provide a system for EI providers to receive support from professionals with the greatest experience, knowledge, and skills.							
12.3 Monitor the fidelity of intervention through direct observation by a highly qualified, experienced EI provider/supervisor.							
12.4 Provide mentorship through input on lesson goals and planning.							
12.5 Encourage and support professional development of EI providers.							
12.6 Conduct self-assessments of EI providers to identify their perceptions of strengths and weaknesses related to the guidelines established in GOAL 3. The goal of these self-evaluation instruments of EI providers is to identify perceived programmatic strengths and weaknesses and provide professional development in the areas of perceived weakness.							
12.7 Measure the progress of EI providers on their knowledge and skills at regular intervals.							
12.8 Obtain families' input about the skills that they have learned through EI services and their perceptions about the effectiveness of these skills in promoting successful outcomes for their children. Questions should not be about families' satisfaction but about information they have learned through EI services.							