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Deaf Education
Focus Group Proceedings

Final Report

Submitted to:

Division of Research to Practice
Office of Special Education Programs
U.S. Department of Education

Washington, DC 20202
Multiple Award Task Order
Contract No. ED-OSE-09-0-0058
Deliverable 5.6.1 (Activity 5.6)

August 1, 2012

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Contents

Introduction

This proceedings document summarizes the discussions and deliberations of the Focus Group on Deaf Education. The U.S. Department of Education, Office of Special Education Programs (OSEP), with support from the American Institutes for Research (AIR), convened a group of 33 experts across American Sign Language (ASL), oral speech, cued speech and total communication language philosophies, including researchers, parents, association leaders, and practitioners, to discuss the state of education for children and youth who are deaf and hard of hearing (DHH). Interpreting and captioning services were provided for all large and small group activities, and a number of hearing focus group members communicated fluently in ASL. More than a third of the focus group members were DHH themselves, and therefore were able to bring important first-person knowledge of the deaf culture and issues to focus group proceedings. The focus group met in Washington, D.C., on March 22–23, 2012. This report synthesizes the proceedings of the meeting as well as findings and recommendations that the focus group offered to OSEP policymakers for their consideration.

Focus Group Charge, Objectives, and Scope

OSEP charged the 33 members of the focus group with sharing their expert knowledge of the current research and practice regarding services for children who are DHH. To guide the meeting's deliberations and discussions OSEP established three objectives for the meeting:

(1) Examine the current state of service delivery and outcomes for children who are DHH.
(2) Identify gaps and challenges to services and outcomes for children who are DHH.
(3) Determine strategies to address these gaps and challenges.

To facilitate the focus group's consideration of these three objectives, OSEP employed a modified *gap analysis* process (Ball, 2009). Gap analyses are widely used in business and economics and are increasingly being used in education to compare actual and desired performance levels. Specifically, focus group members were asked to compare the current and desired status of services for children who are DHH, while targeting key leverage points that OSEP could potentially use to move the field from the current to the desired state of services in the future.

Report Outline

This report has three main sections. Following this introductory section, the meeting procedures are described and the deliberations of the focus group are synthesized under each stage of the meeting. The report concludes by describing the final session of the meeting and the suggested leverage points.

There are eight attachments that follow the report, including (Attachment A) a copy of the meeting agenda; (Attachment B) participant contact information; (Attachment C) descriptions of correspondence and materials shared with participants prior to the meeting; (Attachment D) homework synthesis; (Attachment E) edited and updated desired future states; (Attachment F) comments on future states made during the meeting; (Attachment G) draft key leverage points; and finally, (Attachment H) final key leverage points.

Focus Group Meeting Procedures

This section provides information about the procedures OSEP employed to conduct the focus group and facilitate its deliberative process. Dr. Renee Bradley, Deputy Director, Research to Practice Division, OSEP, organized and coordinated the focus group meeting and provided introductory comments to guide the deliberations. In addition, Ms. Maryann McDermott and Dr. Louise Tripoli from OSEP attended the meeting and contributed their content area expertise to identify and address logistical and substantive issues. Dr. Kelly Henderson, Independent Consultant, facilitated the meeting. Information about the focus group members as well as descriptions of the modified gap analysis process follows.

Focus Group Members

The focus group consisted of 33 external members. The external members were selected to represent key stakeholders in the DHH field, including members of the deaf community, parents of children and youth who are DHH, distinguished university faculty, experienced practitioners, and knowledgeable leaders of national associations, all with expertise and professional interest in DHH issues. Table 1 lists the names and affiliations of the 33 external members. Additionally, staff from the U.S. Department of Education attended the meeting as small group facilitators, observers, and note takers. Dr. Melody Musgrove (OSEP Director) and Dr. Alexa Posny (Assistant Secretary, Office of Special Education and Rehabilitative Services (OSERS)) welcomed the participants, and participated in the final session, where they heard final feedback and recommendations. Attachment B provides contact information for each of the individuals who participated in the focus group.

Table 1: Focus Group Members

- Dr. Shirin Antia, University of Arizona
- Dr. Sharon Baker, University of Tulsa
- Ms. Cheri Dowling, American Society for Deaf Children
- Dr. Malinda Eccarius, University of Nebraska, Lincoln
- Ms. Susan Elliott, Highlands Ranch High School, CO
- Ms. Christine Evans, Evans Family Speech and Hearing, LLC, Richmond, VA
- Dr. Barbara Gerner de Garcia, Gallaudet University
- Mr. Alexander Graham, Alexander Graham Bell Association for the Deaf and Hard of Hearing
- Ms. Donna Grossman, Camelot Center, Reston, VA
- Dr. Ernie Hairston, Retired, U.S. Department of Education, Office of Special Education Programs (OSEP)
- Ms. Marla Hatrak, Alliance for Language and Literacy for Deaf Children
- Dr. Heather Hayes Washington University, St. Louis
- Dr. Barbara Hecht, Clarke School for the Deaf, Boston, MA
- Dr. Bernard Hurwitz, National Technical Institute for the Deaf
- Dr. Tom Humphries, University of California at San Diego
- Dr. Cheryl Johnson, Hands and Voices
- Dr. Amy Lederberg Georgia State University
- Dr. Pamela Luft, Kent State University
- Ms. Cathy McLeod, Postsecondary Programs Network PEPnet 2.0
- Dr. Daniel Montero, Mayo Clinic, Florida
- Dr. Carol Padden, University of California at San Diego
- Dr. Christina Perigoe University of Southern Mississippi
- Dr. Rachael Ragin, North Carolina Department of Public Instruction
- Ms. Sarina Roffé, National Cued Speech Association
- Mr.. Howard A. Rosenblum, National Association of the Deaf
- Mr. Bruce Rosenfield, Oberkotter Foundation
- Dr. Jackson Roush, University of North Carolina at Chapel Hill
- Dr. Brenda Schick, University of Colorado, Boulder
- Ms.. Carol Schweitzer, Wisconsin Department of Public Instruction
- Dr. Ronald J. Stern, New Mexico School for the Deaf
- Ms. Kathleen Treni, Bergen County Special Services District, NJ
- Dr. Karl White, Utah State University
- Dr. Ian Windmill, University of Mississippi Medical Center

Focus Group Deliberation Process

The modified gap analysis process used to facilitate the focus group deliberations was conducted prior to and during the meeting. First, in preparation for the meeting, members of the focus group were tasked with reviewing the chapter *Issues and Trends in Best Practices* (Spencer & Marschark, 2010) to help determine the gap between the *current* and *desired* states of DHH services. Second, during the meeting, the focus group reviewed their individual findings from this gap analysis, and through three group-work sessions, identified potential next steps and key leverage points that would be offered for OSEP's consideration.

Pre-meeting Preparations

Focus group members were provided information about their deliberative task prior to the meeting. Each member was given (1) a list of focus group members, (2) information about gap analysis procedures, (3) the chapter from Spencer and Marschark's book, and (4) the meeting agenda. Attachment C contains additional descriptions and copies of the correspondence and materials. Participants were asked to use a worksheet to organize their individual analyses of current and desired services for children who are DHH based on the pre-meeting reading and their own expertise.

For both the current state and desired state of services and outcomes for children who are DHH, members were instructed to distinguish the broadest array of variables impacting the services and outcomes for this population. These variables could include, but were not limited to, issues of research, technical assistance, personnel development, Federal and State policy, and community services for children who are DHH and their families. Focus group members offered their top 10 topics for the current and future state of DHH policy. AIR and Kelly Henderson synthesized the completed pre-meeting homework into a single document that contained seven overarching categories, with more specific points noted under each category (see Attachment D). In completing the pre-meeting homework, respondents often and consistently made reference to concerns about the divisiveness of different approaches and beliefs about effective methods of communication. These comments were infused across topical categories. To support the meeting goals of identifying strategies and key leverage points for reaching an ideal future state, the synthesis document focused on commonalities of responses within the specific categories.

Meeting Agenda and Deliberations

Throughout the face-to-face meeting, deliberations focused on efforts to reach agreement on important themes that emerged from the individual focus group members' recommendations. Deliberations took place primarily in small groups that were facilitated by OSEP staff.

Attachment A contains a copy of the meeting agenda, which consisted of three main activities. First, participants broke into five small groups to review the summary homework. After determining whether there were any points missing, participants identified the two most important "future state" topics under each of the seven categories and reported their findings to the whole group. The groups listed points on chart paper without necessarily reaching consensus. Following that discussion, AIR and OSEP synthesized the results and incorporated focus group members' comments on the future state. Next, reorganized small groups used the new list of desired future state topics to write two key leverage recommendations under each topic. AIR and OSEP combined each group's leverage recommendations into a single document (see Attachment G for the draft key leverage points). Finally, focus group members used this document with 10 leverage points under each category to select a total of 3–5 overall key leverage points in a third round of small-group deliberations.

Synthesis of Focus Group Deliberations

This section of the report provides a synthesis of the deliberations of the focus group members on the desired states of programs and services for children who are DHH and their families. Primary sources for this synthesis were (1) written statements and correspondence provided by individual focus group members prior to the meeting, (2) written (close to verbatim) notes on discussion points and comments made by participants during small-group sessions at the meeting, (3) transcribed comments from participants as part of deliberations, and (4) relevant issues as suggested by small groups of participants and compiled throughout the meeting. Available extant data from each of these four sources were integrated and summarized for each of the key topic areas considered by the focus group.

A synthesis of key findings derived from these data and other relevant commentary offered for OSEP's consideration by the focus group members is presented in the following sections. This synthesis is organized around findings about both the current and desired state of services for children who are DHH and their families.

Current State of Services for Children Who Are DHH

As part of the pre-meeting homework, the focus group members commented on the current state of services and available supports for children who are DHH. The comments were structured to include seven categories derived from participants' input prior to the meeting (see sidebar: *State of DHH Services: Categories*). Prior to the meeting, participants considered current challenges to providing effective services within each category. To preface the summary of meeting deliberations about the desired future state of services for children who are DHH, a summary of the participants' comments from their submitted homework on the current state of services follows.

State of DHH Services: Categories

- Instruction, Academics, and Outcomes
- Personnel Preparation and Professional Development
- Coordination of Services
- Identification and Early Intervention
- Research
- Families and Community
- Funding, Legislation, and Federal or State Supports

Source: Focus Group Members

Instruction, Academics, and Outcomes

The focus group noted that many children who are DHH enter school with inadequate language skills, which starts them off with challenges in the academic environment. To compound that deficit, staffing programs and services in schools are inadequate to address the specialized needs of students who are DHH. For example, inadequate supply or geographically uneven distribution of staff, poor conditions for staff, and limited content preparation for staff can negatively impact service provision. Participants also noted that there is a lack of accountability (and low expectations) for positive academic outcomes, as well as a lack of clarity on the expectations for improved outcomes. This, as one participant noted, may contribute to the low numbers of students who are DHH who earn high school diplomas. Finally, another participant noted that there is a limited research base with regard to intervention, instruction, academic, and transition outcomes of students who are DHH to address the issues in this category.

Personnel Preparation and Professional Development

Individual focus group members identified many of the same trends regarding personnel preparation and professional development for DHH education and services. First, focus group members cited a general lack of qualified personnel to serve students who are DHH, possibly due to lack of awareness about deaf education career paths and limited teacher and other professional preparation programs at the university level. Further, the training and skills of professionals in the field do not always support the diverse needs of students who are DHH. In addition to having linguistically, ethnically, and geographically diverse families, students who are DHH may have multiple disabilities or early language development needs that must be properly addressed. Finally, personnel preparation programs are likely to have high attrition as programs are impacted by closures or lack of funding. One participant noted that Federal funding for personnel preparation is particularly insufficient.

Coordination of Services

The focus group commented that families of children who are DHH encounter barriers to accessing early intervention services in their chosen communication modality, which then inhibits children from being able to enter school ready to learn. In many places, a range of placement options are unavailable, and the services to children who are DHH and their families are insufficient to support families' acquisition of skills to serve as language models. Additionally, limited collaboration between health and education agencies and personnel at Federal, State, and local levels can contribute to inadequate delivery of assessment, identification, and education services to children who are DHH. One participant noted that this is a particular problem when children transition from Part C to Part B services, whereas another stated that the transition to post-secondary settings, including workforce and higher education, presents significant challenges. Other issues noted by participants include a shortage of pediatric audiologists and school-based audiology services as well as trainers and professionals who use ASL, limited awareness and availability of technology options, few guidelines and large caseloads for itinerant providers, and limited data about services for 504-eligible children and youth.

Identification and Early Intervention

One focus group participant indicated that there is currently great variation in the extent and quality of Early Intervention (EI) services across different states. Another participant added that intervention is not always appropriate and timely, particularly for children in rural areas, children with multiple disabilities, and non-English speaking or immigrant families. Even when EI screening occurs, families do not always receive appropriate follow-up attention or referral to appropriate EI services. Finally, one participant speculated that insufficient funding of Part C services could be the cause of some of the deficiencies in services.

Research

Focus group participants stated that the evidence base has gaps in several areas, including the impact of educational placement and instructional strategies on student outcomes, the role of neuro-imaging studies of children who are DHH, literacy development in middle and high school students who are DHH, long-term influence of EI on language fluency, effective practices for immigrant children who are DHH and their families, teacher expectations, and the impact of specific teaching strategies on literacy development. Some participants suggested that the lacking evidence base might be a result of poor or non-existent DHH assessments to collect and track data, poor connections between available data and change or inaccurate data that are either not disaggregated by disability or only based on those students who are DHH who have received IDEA services such as Indicators 13 and 14. Another participant added that the cost of conducting research and the lack of university-based research programs may be hindering the implementation of research. Finally, in the cases where research has been conducted, teachers and other providers may not have strong knowledge of the evidence-based interventions.

Families and Community

Primarily, participants acknowledged that families of children who are DHH do not always receive the supports and education necessary to assist their children, nor receive full information about the communication and placement options that exist for their children. In addition, one participant noted that parents of middle and high school-aged children who are DHH may receive less support than those of younger children. Further, parents do not necessarily understand the roles that agencies can play and the need for coordination among agencies. With the individualized education program (IEP) process being "complicated and inefficient," parents may not be treated properly by professionals. Participants indicated that these conditions may be exacerbated for families from diverse cultural backgrounds.

Funding, Legislation, and Federal or State Supports

Focus group participants noted that funding is insufficient to offer optimal learning opportunities for every child who is DHH. Funding often drives the provision of services, which may limit the available communication options. Additionally, many states do not have formal plans for meeting the needs of DHH populations, and political and economic cycles can impact or delay the delivery of high quality services across communication options. One participant mentioned that, because they are not specifically required in the IDEA, few Part B or C programs cover the costs of hearing technologies, specifically cochlear implants (CI) and CI mapping. Finally, children who receive services through Medicaid do not always get the highest quality services, and those who are not eligible for Medicaid or private insurance are at an even greater disadvantage.

Desired Future State of Programs for Children Who Are DHH

During the first day of the focus group, participants were placed into five small groups. Groups were created purposefully to ensure that individuals who represented different perspectives (e.g., American Sign Language (ASL) and oral language) were involved in each conversation, including researchers; doctors; advocates; parents; and representatives from personnel preparation programs, schools, and organizations that provide services to the DHH community. Using the pre-meeting assignment on the future ideal state for children and youth who are DHH, the groups were asked first to read and analyze the summary homework document to ensure that the lists were comprehensive, and then to prioritize two aspects in each topic. Following small group discussions, a representative from each reported on their conclusions to the whole group. Attachment E shows the complete summary document of future/perfect states for children and youth who are DHH, once edits and changes were made based on small group deliberations. The following section provides a synopsis of priorities identified by the group for each topic.

Instruction, Academics, and Outcomes

Children are prepared for school success by being provided early intervention and instruction and support services by highly qualified personnel who apply expertise related to the unique needs of children/youth who are DHH. In addition, access to high quality assistive technologies, the availability of supplemental materials, and placement in appropriate least restrictive environment (LRE) settings further support the child or youth's learning needs. Outcomes for all students who are DHH are measured with appropriate and high quality assessments.

Personnel Preparation and Professional Development

Ongoing, high quality professional development, including coaching and mentoring, is provided for general education teachers, special education teachers, teachers of the deaf, ASL teachers, speech-language pathologists (SLPs), interpreters, audiologists, and any other service providers who work with students who are DHH to support the learning of students in all settings in which they are served. In addition, personnel are trained and supported to work in collaborative teams, and taught how to address child and family language preferences and to provide evidence-based services. In addition, institutes of higher education (IHEs) offer personnel preparation in a variety of philosophies and instructional practices, and collaborate with LEAs to support professional development.

Coordination of Services

There are continuous services in place for students from birth to post-secondary transition, and these take into account the different developmental periods for children and address academic and social emotional learning and supports. There is a seamless transition between Part C individualized family service plans (IFSPs) and Part B services, which are delivered through a family-centered, communication-driven approach and in which communication about education options are complete, unbiased, and delivered in the family's preferred language and communication mode whether it be oral language, ASL or another mode or combination of modes. The determination of LRE and placement of services are informed by regular objective assessments and the unique needs of students who are DHH, and in all settings children and youth have access to DHH peers and adult role models.

Identification and Early Intervention

There are systems for early and ongoing identification of hearing loss and provision for complete and accurate information to parents regarding what is available for their child who is DHH and how they can best support her/his needs. Once children are identified, timely, complete and accurate information, and appropriate technologies and services are provided from screening to diagnosis, intervention and onward. Early intervention programs and services are culturally appropriate, family and child centered, and delivered in congruence with natural environment requirements. In addition, early language and literacy are addressed though a range of communication approaches, and appropriate emphasis is given to visual language learning.

Research

Rigorous research is conducted to provide empirical evidence on a variety of best practices and factors that impact the education of children who are DHH—both those with IEPs and with 504 plans—which informs Federal funding and priorities. Comprehensive data are collected on multiple aspects of children and youth who are DHH from birth to age 25, including but not limited to data on educational settings and services as well as on achievement and outcomes, and these data are disaggregated by demographic information.

Families and Community

Parent training centers and support groups connect families with unbiased, comprehensive information about educational and language considerations and opportunities to connect with peers and mentors in the DHH community. Schools provide meaningful and culturally appropriate support to families that speak languages other than English, and families are meaningful participants in the IFSP/IEP processes.

Funding, Legislation, and Federal or State Supports

The education of children and youth who are DHH across all communication modalities is supported by Federal funding for personnel preparation and professional development, coverage for early intervention services, and comprehensive research. Moreover, funding is aligned with support for family communication preferences and evidence-based practices on funding and outcomes. Federal legislation compels and supports State health and education interagency collaboration as well as the reporting of data by distinct student populations to track all DHH child and youth outcomes from birth to 25, including those who do not receive IDEA services.

Leverage Points

The final leverage points were created in a two-step process. Participants worked in small groups on Thursday afternoon to generate draft leverage points. The following morning, groups were given copies of the compiled drafts, and then created final leverage points. This process and the draft and final leverage points are discussed in the section below.

Draft Leverage Points

Changes to the desired future state of programs for children and youth who are DHH were made with the small-group feedback, and the edits were posted around the room. With their small groups, all participants then rotated through each posted topic area, so that everyone could read the revisions and additions suggested. At each station, all focus group members were asked to write down possible strategies needed to achieve future states on post-it notes. During this activity participants were also given the opportunity to write down any further comments they had on the desired states, including whether they agreed or disagreed with remarks on other post-it notes. All comments were compiled, recorded, and distributed to focus group members as part of the materials used in the afternoon small-group work to draft leverage points. Attachment F is the compilation of the strategies brainstormed by topic area.

In the afternoon, all focus group participants were assigned to different small groups to identify possible key leverage points that OSEP could consider in order to move current state of programs and services for children and youth who are DHH to the desired state. Again groups were assigned so that they comprised a cross section of viewpoints and stakeholders. During the afternoon session, each group was asked to reach consensus around two leverage points in each of the seven topic areas. Attachment G shows the complete compiled leverage points of each group; the following provides a summary of the draft key leverage points presented by the groups for each topic area.

Academics, Instruction, and Outcomes

Two groups suggested as a draft leverage point that OSEP provide a definition for LRE and placements as they relate to the unique needs of students who are DHH. Two other groups drafted leverage points that addressed instructor knowledge; one commented that OSEP and stakeholders develop, disseminate, and mandate a definition for what a "highly qualified" teacher means in the context of educating students who are DHH, and the other commented that teachers of students who are DHH must be knowledgeable in Common Core standards and their benchmarks. Multiple leverage points also suggested that OSEP provide supports so that all children who are DHH enter and exit school commensurate with their hearing peers. One leverage point prioritized the development of assessments that are appropriate for measuring progress in language and literacy and establishing research-based instructional strategies for students who are DHH. There were a number of points in this section that also addressed the need for disaggregated, comprehensive data collection on instructional and demographic information of students who are DHH.

Personnel Preparation and Professional Development

The large majority of suggestions in this topic recommended that OSEP provide support and resources for high quality continuing education and professional development for all personnel who provide services for children and youth who are DHH, including teachers of the deaf, paraprofessionals, audiologists, speech language pathologists (SLPs), and related service providers. To this end one group suggested that OSEP establish a technical assistance (TA) center whose responsibilities include, but are not limited to, providing training and exemplary models in each of the six regions. The group recommended that States be mandated to use the new center's TA resources if student data do not demonstrate improved outcomes for children who are DHH. In addition, another group suggested that OSEP-funded personnel preparation programs be available for continuation of successful programs, rather than limited to innovative projects and based on the evidence of unmet needs. Another group commented that professional development trainings could be across disciplines and could be certificate programs.

Coordination of Services

A number of draft leverage points in this section provided suggestions about ways OSEP can ensure that there is a full continuum of high quality services that are well coordinated and accessible to families, children, and youth. Groups suggested that OSEP reach out to the Department of Health and Human Services (HHS) and State-led agencies to establish or enforce interagency agreements, and proposed the use of a combined system of diagnoses and services for all children and youth who are DHH. Further, two groups commented on the need for OSEP to clarify requirements of IEP special factors and communication plans to be coordinated across both Part B and C. Another group suggested OSEP should reassess the age and developmental categories currently used to classify students who are DHH. In addition, some key leverage points advised that OSEP should work to meet the need for a strong data tracking system that would allow educators and service providers to track the progress of students who are DHH through comprehensive and complete state databases.

Identification and Early Intervention

In order to ensure that high quality, best practice services and appropriate technologies are provided to babies and toddlers who are DHH and their families, focus group members suggested that OSEP clarify and enact guiding legislation and disseminate best practices. One group proposed that OSEP develop or clarify rules and assessment tools for making child-centered decisions regarding natural environments for DHH as stated in IDEA; another indicated that OSEP should clarify the Assistive Technology (AT) Act and the extent to which funding for hearing technology is covered by the AT Act and Part C. In addition, two leverage points noted the importance of coordinating early intervention services.

It was suggested that OSEP require home intervention for all children who are DHH, when they move from Part C to B, and for States to monitor EI providers. Another suggestion was that OSEP study States or systems in which children are diagnosed early and receive immediate language, communication, and other child development services, and publicize their model and information nationally to allow other States to follow similar successful models.

Research

Multiple groups advocated for the U.S. Department of Education to develop a national research agenda. A few leverage points addressed the need for comprehensive baseline information on students who are DHH, across their lifespan. One group suggested that OSEP could leverage supported graduate programs, and provide incentives to support high quality rigorous research related to students who are DHH.

Families and Community

Focus group members recommended that OSEP support the dissemination of complete and unbiased information, particularly leveraging the use of technology. One group suggested that OSEP should fund a DHH Technical Assistance and Dissemination (TA&D) Center that serves as a clearinghouse and a vehicle to provide information on all aspects of deafness and education to families of children and youth who are DHH. Another leverage point suggested that OSEP use parent resource centers and recommend the same to States, while another suggested that OSEP match adults who are DHH with youth to act as mentors and role models.

Funding, Legislation, and Federal or State Supports

A wide variety of leverage points surfaced in this topic area. One group suggested that OSEP look at various models to develop a system in which Federal funds follow the child from one provider or program to the next. Another leverage point was for OSEP to use legislation to ensure that students who are DHH are taught to general education standards, and have access to qualified interpreters, captioning programs, and any other means of access. Other groups indicated that OSEP and HHS should work collaboratively regarding coverage of services, and technologies for children and youth who are DHH, and that OSEP should keep "highly qualified" in mind in all funding, legislation, and supports, specifically as it relates to the DHH population.

Final Leverage Points

On Friday, in the final step of the deliberations, small groups reconvened, and using the draft key leverage points as a starting point (in Attachment G), they were asked to identify a total of three to five key leverage points across all topic areas. Each group's final leverage points are presented in Attachment H. Below is a synthesized list of those final recommendations. Many of the groups wrote the same or similar key leverage points so, where applicable, these were combined. For example, the first three leverage points below under 'Coordinated Data System' were based on six original key leverage points (see Attachment H for full list, by group).

Most of the draft leverage points were categorized under the topic areas used by participants to identify the current and ideal future states of children and youth who are DHH. In addition a new topic area, 'Coordinated Data System', emerged from small group discussions. The leverage points are organized below in the same order that the topics have been presented in this report. This order does not indicate the prioritization of any topic or leverage point above another.

Instruction, Academics, and Outcomes (synthesis of 3 unique leverage points)

- To improve academic outcomes so that all children who are DHH enter and leave school with language, academic, critical thinking, social-emotional, and 21st century skills needed to be successful commensurate with their hearing peers and allow them to maximize their ability to the fullest potential., OSEP should provide guidance to State departments of education to ensure that all teachers of students who are DHH know the Common Core Standards and use those benchmarks to guide instruction.

- In addition, OSEP should clearly redefine eligibility for services, LRE, and natural environments for children and students who are DHH, as they relate specifically to family and DHH students' strengths and needs.

Personnel Preparation and Professional Development (synthesis of 5 unique leverage points)

- OSEP should provide sustained funding for high quality low-incidence personnel preparation, including personnel preparation and professional development for all professionals who work with children and youth who are DHH and their families.

Coordination of Services (synthesis of 2 unique leverage points)

- The Secretary of Education and the Secretary of Health and Human Services should work to establish legislative and regulatory actions to remove legal and funding barriers that discourage State health and education agencies from working together with regard to seamless provision of services from birth to post-secondary transition, among agencies serving infants, toddlers, children, and youth who are DHH and their families. In addition, OSEP should support a well-coordinated continuum of services by designating a specific State-level position responsible for implementation and compliance with IDEA.

Research (synthesis of 3 unique leverage points)

- OSEP should create a national research agenda in coordination with relevant stakeholders such as the National Institutes of Health (NIH), the Institute for Educational Sciences (IES), and the National Science Foundation (NSF). The national research agenda should include basic, translational, and applied research aimed at improving language, development, and educational outcomes for infants, toddlers, children, and youth who are DHH.

Families and Community

None of the groups produced final leverage points focused explicitly on Families and Community (see Appendix H). However, there was consensus by participants that consideration of family-preferences and issues of family education and support were included in leverage points of other topic areas.

Funding, Legislation, and Federal or State Supports (from 2 unique leverage points)

- OSEP should mandate the inclusion of special factors in Part C (IFSPs) as well as Part B (IEPs), and require a communication plan to document discussions of special factors in the meetings are documented.
- OSEP should require, as a part the IFSP, continuous progress monitoring of children who are DHH, so that programming and services are determined by the child's progress and performance., In addition OSEP should require home intervention when students move from Part C to Part B.

Coordinated Data System (from 6 unique key leverage points)

- OSEP should create a funded database and develop or enhance the current Federally mandated and coordinated data system.
- OSEP should require States to disaggregate SPP indicators, to ensure that comprehensive demographic and academic data are collected on children and youth who are DHH, birth to age 25.
- Data collected should include but not be limited to: age of identification, degree of hearing loss, language development, educational placement settings, the range and types (including language philosophy) of services available to DHH children and youth, family's primary language, and outcomes.
- These data should be disseminated to (1) families and educators so they can use them to meet individual student needs; and (2) IHEs, personnel preparation and personnel development programs, and district, State, and Federal entities so they are able to identify what services are effective and what is lacking.

Meeting Wrap-Up and Next Steps

The meeting concluded with focus group participants presenting the final key leverage points to the entire group, including observers from the U.S. Department of Education. When the meeting concluded, AIR was tasked with preparing a draft proceedings report to send to OSEP for review and comment. Once OSEP has reviewed and approved the report, AIR will send the final product to the focus group members for their individual reviews and comments. AIR will compile all focus group comments for the proceedings report and forward them to OSEP. AIR will then use these comments and potential next steps, as directed by OSEP, in preparing the final version of the report.

References

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Attachment A: Agenda

OFFICE OF SPECIAL EDUCATION PROGRAMS
FOCUS GROUP on DEAF EDUCATION

March 22-23, 2012

Potomac Center Plaza, 10th Floor Auditorium

Agenda

Objectives

1. Examine the desired state of service delivery and outcomes for children who are deaf or hard of hearing.
2. Identify strategies needed to achieve the desired state.
3. Determine key leverage points to address the current gaps and challenges.

Day 1

9:00–9:45 a.m.	**Welcome and Introductions** • Introductions • Setting the stage • Accomplishing Our Goal
9:45–10:00 a.m.	**Desired Future State of Practice: Summary of Submissions**
10:00-10:45 a.m.	**Small Group Discussion on the Summary Document**
10:45–11:15 a.m.	***Break***
11:15 –11:45 a.m.	**Report Out: Confirmation of the Summary Document**
11:45 -12:30 p.m.	**Brainstorming: Strategies Needed to Achieve the Future State**
12:30–1:30 p.m.	**Lunch: Networking / Down Time**
1:30–1:45 p.m.	**Brainstorming Summary**
1:45-3:00 p.m.	**Small Group Discussion 1: Determining Leverage Points**
3:00–3:30 p.m.	***Break***
3:30–4:45 p.m.	**Small Group Discussion 2: Determining Leverage Points**
4:45-5:00 p.m.	**Wrap-Up**

Day 2

9:00–9:15 a.m.	**Welcome Back** • Finalize departure logistics • Review of yesterday's work and today's plan
9:15–9:30 a.m.	**Individual Reflection and Prioritizing of the Leverage Points.**
9:30–10:45 a.m.	**Small Group Discussion: Prioritizing Leverage Points**
10:45–11:00 a.m.	**Break**
11:00 -11:45 a.m.	**Small Group Report Out on Leverage Points**
11:45- 12:00 p.m.	**Thank You and Good-bye**

Attachment B: Participant List

OSEP Focus Group on Deaf Education
March 22-23, 2012
Washington, D.C.

Participant List

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Attachment C: Pre-meeting Correspondence and Materials

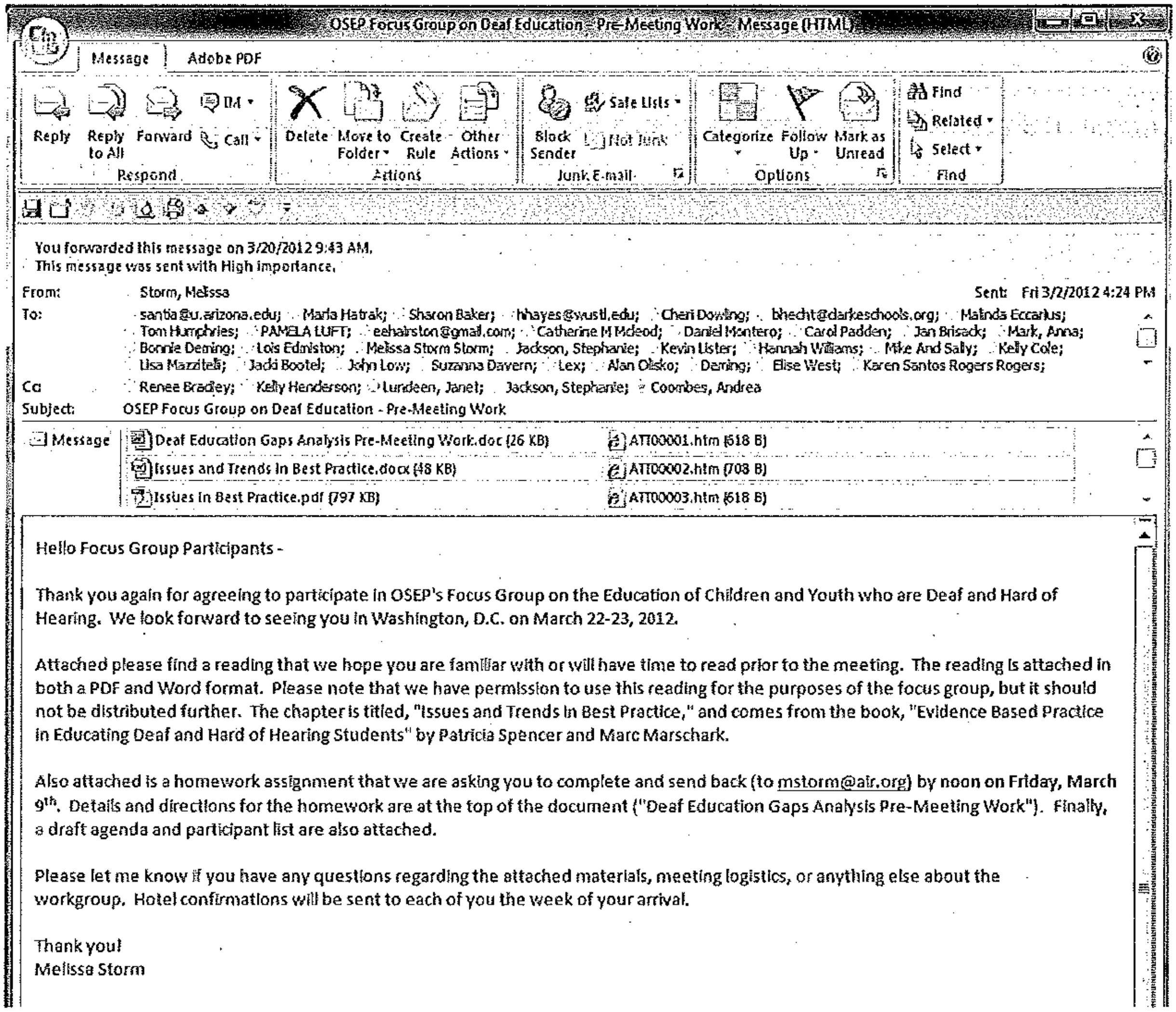
OSEP
DEAF EDUCATION FOCUS GROUP

PRE-MEETING CORRESPONDENCE AND SUPPLEMENTAL MATERIALS

This attachment has three parts:

1. The full e-mail text that was sent to the 33 external focus group members prior to the meeting
2. The instructions for the modified gaps analysis task that was sent to all external focus group members
3. A copy of the chapter that was sent to the external focus group members.

Following is a copy of the e-mail (with participants' names and attachments included).



You forwarded this message on 3/20/2012 9:43 AM.
This message was sent with High importance.

From: Storm, Melissa
Sent: Fri 3/2/2012 4:24 PM
To: santia@u.arizona.edu; Maria Hatrak; Sharon Baker; hhayes@wustl.edu; Cheri Dowling; bhecht@darkeschools.org; Malinda Eccarius; Tom Humphries; PAMELA LUFT; eehairston@gmail.com; Catherine M Mcleod; Daniel Montero; Carol Padden; Jan Brisack; Mark, Anna; Bonnie Deming; Lois Edmiston; Melissa Storm Storm; Jackson, Stephanie; Kevin Lister; Hannah Williams; Mike And Sally; Kelly Cole; Lisa Mazziteli; Jacki Bootel; John Low; Suzanna Davern; Lex; Alan Olisko; Deming; Elise West; Karen Santos Rogers Rogers;
Cc: Renee Bradley; Kelly Henderson; Lundeen, Janet; Jackson, Stephanie; Coombes, Andrea
Subject: OSEP Focus Group on Deaf Education - Pre-Meeting Work

Message
Deaf Education Gaps Analysis Pre-Meeting Work.doc (26 KB)
ATT00001.htm (618 B)
Issues and Trends in Best Practice.docx (48 KB)
ATT00002.htm (703 B)
Issues in Best Practice.pdf (797 KB)
ATT00003.htm (618 B)

Hello Focus Group Participants -

Thank you again for agreeing to participate in OSEP's Focus Group on the Education of Children and Youth who are Deaf and Hard of Hearing. We look forward to seeing you in Washington, D.C. on March 22-23, 2012.

Attached please find a reading that we hope you are familiar with or will have time to read prior to the meeting. The reading is attached in both a PDF and Word format. Please note that we have permission to use this reading for the purposes of the focus group, but it should not be distributed further. The chapter is titled, "Issues and Trends in Best Practice," and comes from the book, "Evidence Based Practice in Educating Deaf and Hard of Hearing Students" by Patricia Spencer and Marc Marschark.

Also attached is a homework assignment that we are asking you to complete and send back (to mstorm@air.org) by noon on Friday, March 9th. Details and directions for the homework are at the top of the document ("Deaf Education Gaps Analysis Pre-Meeting Work"). Finally, a draft agenda and participant list are also attached.

Please let me know if you have any questions regarding the attached materials, meeting logistics, or anything else about the workgroup. Hotel confirmations will be sent to each of you the week of your arrival.

Thank you!
Melissa Storm

Following is a copy of the instructions for the pre-meeting modified gaps analysis task that was sent to participants as an attachment in the e-mail.

To structure the conversation for the Focus Group on Deaf Education (March 22-23,2012), we will be using a 'modified gaps analysis' process. This process allows us to assess the current status, identify the future preferred state, gaps and challenges and focus on key leverage points of change.

Our focus for this meeting will be on improving services and outcomes for children who are deaf or hard of hearing. During our face to face time we want to focus on identifying solutions and next steps in addressing the gaps and challenges that exist between current practice and what we would consider best practice. To that end, we are asking you to consider and respond to the questions below prior to the meeting. This portion is usually done face to face and takes approximately 2-3 hours so please give the tasks below thoughtful attention. In your responses please consider the broadest array of variables impacting the services and outcomes for these children including but not limited to: research, technical assistance, personnel development, Federal and State policy, community services, etc.. Our hope is that by getting your responses to these questions in advance, we will have this analysis done and we can spend more time in meaningful conversation during our two days together.

Please return this document to Melissa Storm (mstorm@air.org) by Friday, March 9th.

Given your expertise and experience regarding children who are deaf or hard of hearing, what is your vision of the "perfect state" for these children? (for example: How would they be served? What types of outcomes would these students have? How would school and community resources support these children? What skills would service providers have? In general, if we did our very best what would that look like?)

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Given your expertise and experience regarding children who are deaf or hard of hearing, how would you describe the current state of services and outcomes for these children? (Please try to focus on the broadest number of variables impacting the current status: prevention, achievement, trained service providers, long term outcomes, interagency collaboration etc.).

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9.
10.

Following is the chapter that participants received as an attachment in the e-mail. From:

Spencer, P. E., & Marschark, M. (2010). *Evidence-Based Practice in Educating Deaf and Hard-Of-Hearing Students*. Oxford University Press.

Preface

Books are not written by accident, but sometimes they are not planned. This one certainly wasn't. It happened like this.

In 2008, the National Council for Special Education (NCSE) in the Republic of Ireland contracted with the Center for Education Research Partnerships at the National Technical Institute for the Deaf to provide them with "an international review of the literature of evidence of best practice models and outcomes in the education of deaf and hard of hearing children." As soon as the contract was signed, the authors set to work. The resulting report, completed about a year later and accepted by the NCSE following revisions, included recommendations and implications specific to the Irish context, given current services and educational programming provided for deaf and hard-of-hearing children in a variety of settings. We wish to extend our thanks to Jennifer Doran of the NCSE, Sean O'Murchu of the Department of Education and Science, Lorraine Leeson of the University of Dublin, Patricia Sapere from the National Technical Institute for the Deaf (NTID), and the many students, parents, and teachers in Ireland who provided us with information in preparing that report.

Obviously, however, that is not the end of the tale. By the time the report was finished, it was over twice as long as we had expected. More important, we discovered that a truly comprehensive review of the literature on educating deaf and hard-of-hearing children held a variety of surprises. Some of the assumptions that we had long held as researchers and teachers of deaf students turned out not to be grounded in empirical evidence, and others turned out to be just plain wrong. On the other hand, we discovered remarkable convergence across studies in several domains relevant to foundations and outcomes in deaf education—findings indicating that we actually know more than we think we. do in at least some respects. Together with the fact that our reference list alone was almost as long as we expected the entire Irish report to be, these revelations led to an obvious conclusion: Somewhere in there was a book that needed to be written. With permission of the NCSE, the support of Catharine Carlin and Abby Gross at Oxford University Press, and the wisdom of three anonymous reviewers, the book before you is the result.

As we describe in chapter 3, in our efforts to produce an evidence-based summary of what we know, what we don't know, and what we thought we knew (but really don't) about educating deaf and hard-of-hearing children, this volume draws almost exclusively from peer-reviewed articles, government reports, and books that gave us confidence in the findings reported. Surely we missed some studies that would have been informative, and our emphasis on relatively recent research means that we do not discuss a vast quantity of excellent, earlier work in the field, even if we did benefit from familiarizing or re-familiarizing ourselves with it.

We also recognize that far more information on the topics considered in the following chapters is available from unpublished reports, conference presentations, and various websites. In the current social, political, and economic climate, however, it is only empirical findings—and, in particular, those that can be deemed trustworthy by virtue of having strong methodologies and having gone through the editorial review process—that can be expected to convince "the powers that be' of the necessity for educational change. For too long, support services and educational programming for children with significant hearing losses have been guided or at least heavily influenced by politics, preferences, and administrative expedience. Even while proponents of one perspective will castigate others for philosophical rather than fact-based decision making, they, too, may be caught up in the desire to do what they think is right for deaf children, even if they are lacking empirical support for anything different.

Given our experience in the field and, more recently, our efforts to find consistency in diversity and our obsession with reconciling contradiction, we are confident that most readers will find something to like and something to dislike in the following pages. Indeed, as *we* have begun to talk about our findings at professional meetings, some of the conclusions presented here already are having an impact. New studies have begun (in support or dispute of such conclusions), some information previously provided to parents and teachers has changed or been dropped, and at least two reports we cite as actually contradicting their authors' claims have been removed from websites. In the chapters that follow, therefore, the reader can expect that some beliefs long held dear will be shown to lack (at least empirical) merit, and things that perhaps one might wish were not the case indeed are. But we, too, have had to deal with surprises and with expectations that turned out to be unfounded.

Perhaps our most notable disappointment was that we were unable to find support for some kinds of programming we truly believe in. Take early intervention. We have known for over a decade that deaf and hard-of-hearing children who receive early intervention services do better than peers who do not receive such services in language and social development as well as in early academic achievement. So why do we not know anything about the long-term influences of early intervention on language fluency, social-emotional functioning, and especially academic achievement in the later school years? The earliest cohorts of deaf children who received early intervention programming are now at least university age. Did a greater proportion of them graduate from high school? Gain entrance to universities? Graduate and perhaps even earn a graduate degree? Why is nobody asking these questions?

Take bilingual-bicultural education. As much as we both believe in its potential, why is there no evidence to support existing bilingual programs—in either language or academic domains? Is no one conducting program evaluation? Or have they not been successful, but nobody wants to talk about it? And what about the *cultural* part of bilingual-bicultural education? Does learning about Deaf culture and Deaf heroes cpntribute to deaf children's identity or self-esteem? Is anyone making more than a token effort to teach Deaf heritage, and if so, where are such programs described?

For the sake of balance, and because we really do have some questions, consider also cochlear implants. Cochlear implantation, particularly when it occurs during the first year or two of life, contributes significantly to deaf children's academic achievement. Certainly, part of this benefit results from improved hearing and concomitant language acquisition, but children with implants still generally lag behind hearing peers in achievement. Why? Is it simply that they do not have complete access to the auditory signal (similar to the situation of children with minimal hearing losses)? If so, are the effects as specific to reading comprehension as they appear, or have we simply not looked into other domains of development and achievement?

These and many other questions surfaced even as we discovered exciting links we did not expect, studies we had previously overlooked, and points of convergence that suggested new possibilities for research and practice. We did look for answers to these "missing questions," and some of them we found. Others seemed
more elusive, and other people were as surprised as we were that some questions simply had not been asked. In the original NCSE report, for example, we noted that several deaf students we spoke with in Ireland complained that teachers' expectations often were too Tow, and they needed to be challenged more. Some observers in the United States similarly lament that some teachers and parents frequently do not push deaf students hard enough, but frequently "let them slide" because they are deaf A reviewer of the NCSE report asked, in all naiveté, "Why has no one investigated this issue?" Good question.

So, as lengthy as this "report" turned out to be, it raises many more questions than it answers about best practice in educating deaf and hard-of-hearing students. Maybe we should not have expected anything different. But, remember, we did not plan to write this book. Perhaps it was not an accident, but it just happened. We did not come into it with any agenda other than summarizing the available evidence, and we leave it wishing there was more. In between, we have come to appreciate all the more those parents and teachers who have been so successful in raising and educating bright, motivated, and talented deaf children and have helped them to succeed. If we could capture all that they know and all that they do, we would bottle it and give it away. For now, however, this book is where we are. Whether or not we are happy with all of our conclusions, we believe them to be sound even if, in most cases, we believe that more research is needed.

To the extent that the information provided here spurs further research or influences educational policy and practice, the effort that went into this volume will have been well worthwhile. If it contributes to enhanced educational opportunities for deaf and hard-of-hearing children and their academic outcomes, we will have succeeded beyond our dreams. We are nothing if we are not realistic.

Preparation of portions of this book was supported by the National Council for Special Education (Republic of Ireland). That information is reproduced here with permission of the NCSE, but responsibility for the research contained herein (including any errors or omissions) remains with the authors. The views and opinions contained in this report are those of the authors and do not necessarily reflect the views or opinions of the Council. Preparation of this report also was supported in part by grant REC-0633928 from the National Science Foundation. Any opinions, findings and conclusions, or recommendations expressed in this material similarly are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Chapter 11: Issues and Trends in Best Practice

We began this volume by stressing two realities: First, hearing loss in childhood is a low incidence condition but has great impact on a child's development unless (and often even when) appropriate educational support is provided. Second, programming for children with hearing loss has proceeded historically without reference to a strong evidence base, a situation created in part by the low incidence of childhood hearing loss and the great variability of characteristics and experiences in the population. Reflecting upon the evidence from studies summarized in this book, there are several emerging realities with regard to deaf and hard-of-hearing children that need to be considered if further progress is to be made in understanding the factors contributing to their development and in improving their academic outcomes. These generalizations are not mutually exclusive but highlight several convergences we have identified in what we know, what we do not know, and what we only thought we knew in several areas.

- *Early identification of hearing loss and immediate provision of effective intervention services for both child and family can raise the general levels of language skills attained by deaf and hard-of-hearing children with subsequent benefit to academic achievement.*

Effective early intervention usually is characterized by a family-centered approach, with educators and therapists serving as consultants to parents or caregivers. Support for family emotional needs as well as information about hearing loss and intervention approaches should be available, and the family's degree of involvement with the child's development and education must be encouraged. That involvement is consistently identified as a predictive factor of developmental and academic success. Early access to positive interactions and accessible language must be assured if optimal development is to be promoted. The language approach chosen should be based on child and family factors, not on pre-determined educator bias or administrative expedience. Decisions once made can and should be changed if circumstances and assessment data indicate a need. There is a large body of converging evidence indicating benefits to development following early identification and intervention, but the lag between achievement levels of children with and without hearing loss has only been decreased, not eliminated.

- *A variety of approaches to supporting language development in deaf and hard-of-hearing children continue to be available. Research has indicated each to be effective in some cases, but no one approach is appropriate for all.*

Natural sign languages are learned readily and develop at a pace typical of hearing children's spoken language, but only when fluent sign models are available. In addition, the transition from using a natural sign language for communication and a written code for a spoken language for literacy purposes is not automatic. Total communication programming, including sign, speech, and their simultaneous combination, does not typically provide a complete model of either a signed language or a spoken language. However, children have been shown to be capable of integrating auditory information with sign when it can be accessed along with visual information from phonological and syntactic systems. Such integration has been shown to occur regardless of whether the visual input is provided via sign, via cued speech, or via instructional approaches such as Visual Phonics. Despite claims to the contrary, the addition of signs or the use of cues to disambiguate spoken language has never been found to interfere with the process of developing spoken language. At the same time, when sufficient auditory awareness is available, development of spoken language may be well supported by intensive experience listening to and using speech as provided in oral and auditory-verbal programs.

- *It remains difficult to predict an individual child's language development or academic achievement, and most factors predictive of success are shared among the various communication and early intervention approaches.*

Predictors include absence of disabilities in addition to hearing loss, higher levels of nonverbal cognitive ability, family support for the child and for education, consistent exposure to fluent language models accessible within the child's sensory processing capabilities, and adaptive behaviors such as attention skills that reinforce interaction experiences and promote learning in general. Degree of hearing loss associates with some, although not all, aspects of language learning in auditory and oral modalities. Thus, increasing the amount that a child can hear (and discriminate) tends to improve his or her spoken language skills. In contrast, hearing thresholds have not been consistently found to associate with varying levels of academic achievement. There is increasing recognition of the need for research that focuses on identifying methods of promoting successful language development across language approaches rather than continuing fruitless attempts to compare outcomes from one approach with those of another in order to claim that one is superior.

- *Advanced hearing aid technology and use of cochlear implants have provided increased access to auditory information and spoken language for many children with hearing loss, and spoken language achievements for many deaf children are significantly more probable than in the past.*

Cochlear implants, in particular, support spoken language across a variety of language approaches, and positive effects tend to increase with early first use, consistent with the predictors of language development that were listed above. Although reports of striking improvements in early spoken language accomplishments are emerging for children with implants obtained prior to 2 years of age, it is not dear whether that rate of development will continue with age; some children, especially those with additional disabilities, show significantly less positive outcomes. Use of sign language together with cochlear implants continues to be controversial, but there is no evidence indicating that its use interferes with spoken language acquisition. In fact, the evidence suggests that sign language potentially provides support for developing language and cognitive abilities as well as academic achievement. The amount of spoken language exposure needed for its acquisition seems to vary widely across children, but few studies have investigated this variable.

- *An evidence base is beginning to accrue related to educational approaches to promote literacy skills regardless of the modes or approaches used for language development.*

There is a convergence of data indicating that direct instruction in literacy must be provided in meaningful and interactive contexts to support deaf and hard-of-hearing students' acquisition of vocabulary as well as syntactic and phonological knowledge. Increases in these skills, along with programming that explicitly supports reading comprehension and use of metacognitive strategies, have been shown in a small number of studies using various populations and designs to have positive effects on reading and writing abilities. The current data, however, do not provide clear guidance on exactly how that instruction should best proceed. Limited evidence is available that literacy skills of students with hearing loss can be enhanced by early shared reading and writing experiences, incorporation of literacy activities in content subject lessons and activities, and directed reading comprehension experiences in which "thinking aloud" and other metacognitive strategies are actively promoted.

- *Researchers have long been seemingly obsessed with the literacy challenges of deaf and hard-of-hearing children, but academic challenges are seen across the curriculum.*

Students with hearing loss frequently show delays and deficits in the areas of mathematics and science; similar delays appear to occur in other content areas, but those have not been documented. Such difficulties have been attributed to a variety of factors including underuse of metacognitive strategies, decreased visual attention to information provided in classrooms, lack of language skills for understanding written texts and information presented during class, lack of background content and world knowledge, and relatively infrequent exposure to problem-solving activities in formal and informal educational settings. Achievement tends to be higher when teachers are subject-matter specialists but are also knowledgeable about the special learning needs of students with hearing loss. Few data are available that directly address programming characteristics and outcomes, but approaches that emphasize visual modeling and visual presentation of mathematical and science concepts appear to have promise. In addition, embedding writing activities into science and related classes appears to have a mutually positive effect on concept development and literacy skills. Much more research is needed to guide programming efforts in academic content areas, which are becoming of increasing importance in a continually more technologically oriented and interdependent world.

- *Although a social and political consensus seems to have occurred supporting integration of students with and without hearing loss in classes, specific placement options have been found to have little independent effect on academic outcomes.*

A variety of approaches to academic integration (mainstreaming) can be found. Some models allow for placement options based on individual need; in others, such as co-enrollment models and congregated settings, a "critical mass" of children with hearing loss is placed within a somewhat larger group of hearing classmates. All of these appear to produce positive social-emotional effects but minimal differences in academic achievement. Because deaf and hard-of-hearing students tend to have special learning needs in addition to potential communication barriers, teachers or teaching teams need to have a mix of expertise and strong collaboration skills. Ultimately, greater social comfort of deaf and hard-of-hearing students in mainstream settings and a greater understanding of their academic strengths and needs on the part of teachers may improve students' academic outcomes. To date, however, there is no evidence that either mainstream or separate education is inherently superior for deaf and hard-of-hearing students' academic achievement Comparison studies are difficult to interpret because both student characteristics that led to the initial placement decision and characteristics of the program operate and influence outcomes, independently and in interaction.

- *Research involving students with hearing loss, especially those in upper grades, frequently indicates patterns of cognitive skills, problem-solving approaches, and learning strategies that do not match practices in most educational environments.*

Specific differences between students with and without hearing loss have been identified in a variety of cognitive areas including sequencing skills, integration of information across sources and time, focus on detail versus conceptual conclusions, selective and sustained visual attention, prior content knowledge, and creative problem solving. Structured interventions have shown some success in promoting better metacognitive abilities and their use in learning contexts, but cognitive differences can interfere with learning across the curriculum, especially when teachers are unaware of them (e.g., in mainstream settings). It is not clear to what degree these differences reflect sensory as opposed to communication experience differences, but effects may vary across skill areas. Research is critically needed, particularly with regard to assessing outcomes of varied interventions as they interact with individual differences.

- *Children with significant disabilities beyond hearing loss present even more varied needs than those with hearing loss alone and make up an increasing proportion of the population of deaf and hard-of-hearing students.*

Children with severe challenges in social interaction, communication, or cognition may require highly specialized settings and curricula. The majority of children identified with multiple disabilities, however, present with a combination of mild to moderate conditions that, together, magnify the challenges that would be presented by hearing loss alone. Given the great individual variability among these children, there is little well-defined evidence on which to guide instructional practice or the design of educational interventions. Use of single-subject designs to test effectiveness of specific interventions for individual children may provide helpful guides for individual children and, with appropriate aggregation of records over time, begin to suggest patterns of more general, successful approaches. Although it sometimes has been helpful for researchers to exclude children with multiple disabilities from their research in order to identify more specifically outcomes related only to hearing loss, continuing to do so ignores a significant segment of the students served by programs for deaf and hard-of-hearing children.

Although information about levels of hearing loss has not been a focus in this review, almost every section has included some mention of their potential effects. Children who have been referred to as "hard of hearing" and who have access to varied amounts and quality of auditory information comprise the largest segment of the population of children with hearing loss. This is a segment of the population for which development of an evidence base is especially important now that many children who would have functioned as profoundly deaf in the past can access more auditory information with the use of technology. There has been increasing recognition and research interest in students who are hard of hearing or have minimal hearing loss since the turn of the century, and we expect that more specific information on their needs and educational outcomes will be forthcoming.

In this and other areas, the convergence of data across the topics and areas reviewed in the preceding chapters indicates that there is much need for teachers who are trained and knowledgeable about specific social and learning characteristics of deaf and hard-of-hearing children. Teachers also need to be well prepared in their respective content areas (e.g., math, science, social studies), to understand the dynamics and outcomes of varied placement options, to have the ability to collaborate in various settings with other teachers and support personnel, to be current on emerging knowledge about and promoting of enhanced cognitive and learning profiles and abilities of students with hearing loss, and to be aware of the wide variety of disabilities in motor, social, and other areas that frequently co-occur with hearing loss. Of course, training also needs to be provided in an array of the communication approaches that will be used by deaf and hard-of-hearing students, in emerging approaches to supporting literacy development, and in methods of evaluating student progress. These needs place a heavy burden on teacher-training programs and also may lead to varied staffing models in schools in order to obtain the needed mix of expertise in teaching staff. Data continue to indicate, however, that specially trained teachers (and other professionals) for deaf and hard-of-hearing students are critical to supporting the students' development.

Despite the unanswered questions and continuing needs that have been emphasized in this book, we believe that the overall picture is both more positive and more hopeful than at any time in the past. Conducting this review gave ample evidence that there is a large and varied amount of information available from research and practice with deaf and hard-of-hearing students, and that more and more sophisticated studies continue to take place. Dissemination of such data is critical if the field is to continue to move forward, and there are increasing avenues in which this is occurring. In many cases, developments in teaching methods, understanding of learning styles and abilities of deaf and hard-of-hearing children, and influences of new technologies and practices are leading to discarding, or at least decreasing the hold, of paradigm that have not promoted overall successful development. Newer and more divergent approaches to education are being at least considered and, increasingly often, evaluated with scientifically appropriate procedures.

Existing reports from standardized testing involving students with significant hearing losses remain discouraging, but it is clear that opportunities for language and academic development of children with hearing loss are increasing and, with continuing progress, those reports will become more positive. The wide range of achievement levels in the existing population of deaf and hard-of-hearing students may be vexing to researchers attempting to conduct nicely controlled studies. At the same time, those individual differences remind us that many students with hearing loss, with guidance from parents and teachers and other professionals, are reaching ever higher levels of accomplishment. Our job as professionals who care about these students is to continue to look past what we *used* to think we knew, consider the great body of information available, and use that to develop ever stronger supports that will allow all children to reach their potential.

Attachment D: Synthesized Pre-meeting Work

Summary of Common Themes for Current State and Future State, based on homework assigned on March 2, 2012, for use at the OSEP Focus Group on Deaf Education on March 22-23.

Current State

Instruction, Academics and Outcomes

1. There is a lack of accountability for academic outcomes of students who are deaf and hard-of-hearing (hereafter referred to as DHH students/children/youth). Reasons for this vary including that desired outcomes are poorly defined and tracked.
2. Many DHH children enter school with inadequate language skills. Evidence indicates that students who enter school without a strong language foundation and/or have delayed language acquisition experience additional challenges to academic achievement.
3. Some research exists regarding intervention and instruction of DHH students; more exists on specific approaches to language (such as American Sign Language (ASL), listening and spoken language (LSL), etc.)
4. Models for staffing programs and services in schools are inadequate to address the specialized needs of all DHH students. A wide array of service providers interact with DHH students and their families. Service provision can be negatively impacted by an inadequate supply or uneven distribution of staff, poor coordination of staff, and by limited content preparation of current staff.
5. In some areas, a low number of DHH students earn high school diplomas while many receive a certificate of completion.
6. The issue of outcomes is impacted by low expectations, as well as a focus on framing the "underachievement" of DHH children. The focus has been on underachievement rather than the "under-education" of poor schooling.

Personnel Preparation and Professional Development

1. The training and skills of the professionals does not always match or support the wide range of communication needs of the DHH students they serve. Specific concerns are that personnel preparation programs do not adequately prepare professionals to support DHH students' use of ASL, DHH students' use of LSL, or the early intervention and early language development needs of the DHH. Personnel often lack skills and tools for addressing students' needs, particularly needs beyond language and communication.
2. Models for training personnel are inadequate to address the specialized needs of all DHH students.
3. There is a lack of qualified personnel to serve DHH students including teacher, interpreters, audiologists, speech language pathologists, and medical/allied professionals. The limited supply is due in part to fewer teacher and other professional preparation programs at the university level and a lack of awareness of deaf education career paths.
4. There are shortages of personnel qualified to address many specific needs within the DHH population. These needs include DHH students who have multiple disabilities,

whose families are linguistically diverse, who enter school with a language other than English or ASL, who live in rural or remote areas, who live in poverty, and who are racially and ethnically diverse.

5. Once trained, personnel serving DHH students are likely to have high attrition and the positions have high turnover.
6. Leadership programs are impacted by closures/lack of funding.
7. Federal funding for pre-service personnel preparation programs is insufficient and not well-matched to educational options chosen by families. Merging of grant subcategories over time has contributed to declining numbers of funded preparation programs.

Coordination of Services

1. In many places, a range of placements options are not available. A variety of barriers and incentives/disincentives limit options. Among these are cost, geography (i.e., rural and less populated areas), and a lack of coordination, communication, and common philosophy between personnel at schools for the deaf and those in LEAs.
2. The variety and amount of services delivered to young DHH children and their families varies but in many places is insufficient to support parents' and caregivers' acquisition of skills and knowledge to serve as language models. Many young DHH children do not enter school ready to learn.
3. Families of young DHH children face barriers in accessing early intervention (EI) services in the family's chosen communication modality.
4. Limited collaboration between health and education agencies and personnel at federal, state and local levels can contribute to inadequate or uneven delivery of comprehensive assessment, identification and education services to DHH children and youth. This is a particular problem in some places when children transition from Part C to Part B services.
5. DHH youth often experience significant challenges in their preparing for and during their transition to post-secondary setting. There are few supports to prepare DHH youth for jobs and success in the community. Many DHH adults struggle in postsecondary education, work and community settings. There is a lack of direct communication services in many postsecondary settings.
6. DHH students whose needs do not ever or no longer require services through IDEA often face challenges getting appropriate services through Section 504. Limited data about the services provided to 504-eligible children and youth are available.
7. Itinerant providers operate under few or no guidelines and their services to any one student are often limited by a lack of data regarding what is optimal as well as by logistical realities of large caseloads and large geographical coverage areas.
8. There is a shortage of pediatric audiologists and school-based audiology services. There is limited awareness and availability of technology options.

Identification and Early Intervention

1. Even when newborn hearing screening occurs, many families and children do not receive appropriate follow-up attention and referral to appropriate early intervention services.
2. Great variation in the extent and quality of early intervention service provision exists across different states.
3. Appropriate and timely identification and high quality early intervention are not always available; this may disproportionately impact children in rural areas, children who have multiple disabilities, those whose families do not speak English, and immigrant families.
4. Insufficient funding of Part C services can result in limiting families' access to timely and appropriate services.

Research

1. Gaps exist in the evidence base in several areas: the relationship between educational placement and student outcomes, the relationship between instructional strategies/interventions and student outcomes, the role of neuroimaging studies of DHH children, literacy development in middle and high school DHH students, long-term influence of EI on language fluency, effective practices for DHH immigrant children and families, teacher expectations, and the impact of specific teaching strategies impact literacy development.
2. Teachers and other providers of literacy instruction do not always have a strong knowledge of proven interventions.
3. National and state data on DHH children and youth are limited by many factors including that only a few states track state assessment data for DHH, available data do not inform changes to intervention, State Performance Plan data are not always disaggregated by disability, and data are often based only on DHH students who are receiving IDEA services.
4. The implementation of empirical research on DHH students is hampered by several factors including the cost and effort of conducting research on a proportionately small population, rules again action research, few university-based research programs and increasing retirements of experienced faculty without replacements.

Families and Community

1. Families often receive limited information about communication options that exist for their children who are DHH. There are many reasons for this.
2. The cultural experiences and background of families are not always well-understood and families may not receive information and services that are culturally-competent.
3. Families of children receiving EI are not always provided the supports and education they need to be able to support their children in building a strong foundation for later learning.
4. Parents of DHH students in middle and high schools may receive less support that those of parents of younger children.
5. Parents do not always understand the potential roles other agencies can play and the need for coordination, particularly in transition planning.

6. Several factors discourage meaningful family participation. Among them are that parents may be treated by professionals with condescension. The IEP process is complicated and inefficient. The IEP special considerations are applied inconsistently.

Funding, Legislation and Federal or State Supports

1. Funding for school districts and private providers is insufficient to offer optimal learning environments for every DHH child. Funding often drives provision of services and may limit the communication options supported.
2. Many States do not have formal plans for meeting the needs to DHH populations (e.g., a DHH bill of rights, efforts to follow the National Agenda).
3. Family resource centers, parent training and information centers, etc. do not always serve families of DHH students well.
4. Political and economic cycles can impact the delay or detour the consistent delivery of high-quality services, across all communication options.
5. Few part B or C programs cover costs of hearing technologies. Cochlear implants and CI mapping are specifically excluded. Children served through Medicaid do not always receive high quality hearing technology services and those who have neither Medicaid nor private insurance are at greater disadvantage.

Future/Perfect State

Instruction, Academics and Outcomes

1. Children who are students who are DHH (hereafter referred to as DHH children/students) have literacy and other skills on a level commensurate with their hearing peers when they enter kindergarten, and maintain annual achievement at same rate as peers.
2. Early intervention and preschool programming provide a strong foundation for their school success.
3. Evidence based practices guide instruction and intervention. These include use of appropriate summative and formative assessment, frequent monitoring of performance and progress, differentiated instruction, and delivery of content and skills that may be specific to needs of DHH students such as peer social activities, technology supports, and self-advocacy).
4. Teachers and other service providers have expertise in language development and learning in the student's mode of communication.
5. Appropriate and high quality assessments, instructional materials, technologies and other supports are funded and readily available.
6. The needs of DHH children and youth who have other disabilities are fully met.
7. DHH children and youth have access to and maintenance of appropriate hearing technology in home and school settings, as appropriate for the individual child. This includes appropriate technology to support individual visual, auditory or tactile learning needs, such as FM systems and accessible media.
8. DHH youth receive the coordinated social, transition and other support services necessary to be confident, productive members of the community and experience career success.

Personnel Preparation and Professional Development

1. All professionals, including interpreters, meet minimum standards and have demonstrated qualifications to deliver education and services consistent with students' IEPs.
2. Teams of qualified personnel work together to address individualized services for DHH children and youth, so that no one teacher has to be skilled in all services and communication modalities. These communities of learners facilitate the delivery of evidence-based services consistent with the specific needs of the child and the family's preferences.
3. General educators play an important role in supporting the learning of DHH who might be served in regular classrooms.
4. Itinerant teachers are well-prepared to meet the needs of students at all levels, and have the resources to work collaboratively with colleagues including pediatric audiologists, interpreters, etc.
5. Coaching and mentoring programs are available to staff providing deaf education services.

6. University training programs provide exposure to a variety of philosophies and have resources to train a sufficient number of high quality teachers and other personnel to work with all DHH children and youth.

Coordination of Services

1. Readily available services for DHH children and youth are coordinated from birth through secondary school, and provided at no cost to parents. Personnel are provided necessary supports for their service delivery such as training, access to a team of multidisciplinary colleagues, time for consultation.
2. Placement does not determine extent or nature of services.
3. EI and preschool services are delivered in a seamless, family-centered approach using the family's preferred language and communication mode.
4. Data about student performance, outcomes, etc. are kept and used to make program improvement decisions. Data about DHH students who are not receiving services under IDEA are also monitored.
5. Regular objective assessments measure across skill areas and help guide decisions about service delivery and planning for individual children.
6. Unbiased information about educational options, placements and communication approaches are provided to family members and professionals on the IEP team.
7. Determination of natural environments and LRE should be more broadly defined for DHH children. School accountability measures should factor this.
8. Social experiences and connections with DHH peer and adult role models are components of programming for DHH children.
9. Transition planning begins early, includes a variety of experiences and skills, is based on assessment, family and student preference, is conducted with interagency cooperation, and leads to meaningful career outcomes.

Identification and Early Intervention

1. Children transition smoothly from screening to early identification (by 1 - 3 months of age) to intervention, education and post-secondary settings.
2. Early intervention services are family-based, culturally-competent, and include family education and support and direct services to children. EI/Part C services are provided free of charge to families and are provided with appropriate intensity and frequency.
3. Language and early literacy are addressed and a range of communication approaches are available and supported.

Research

1. The field has access to empirical evidence about a variety of factors that impact education of DHH. Some of these are effective programming for children with multiple disabilities, the best timing for detection, identification and fitting with technology and intervention, understanding brain function, impact of educational settings, executive functioning, and literacy and other outcomes.

2. Data from recent national reports about the status of services across the country and information from current project investments are used by OSEP to guide model development, replication and discretionary spending priorities.
3. Comprehensive survey and other data are available about the placement, functioning, service use and needs, progress and outcomes for DHH children. State Performance Plan data are disaggregated by disability. Other data are disaggregated by race, income, ELL and immigrant status.

Families and Community

1. Families are fully informed about educational and language considerations. A range of placement and communication options are available to them and their children.
2. Parents are meaningful participants and partners in the IEP/IFSP process. Families know the services on their children's IFSPs/IEPs are being delivered by qualified personnel.
3. Families have opportunities receive support for themselves and their children. Examples are parent education and training, social events to interact with bilingual, deaf people and connections with other parents of DHH children, including at first identification. Federally funded parent training centers and other support programs are well-informed and have appropriate resources to share with families.

Funding, Legislation and Federal or State Supports

1. States have a coordinated system for access and information to services for all DHH children. State education agencies offer leadership, training, advocacy, standards and other supports to schools and personnel. States maintain performance data on all students with DHH, including those who do not receive IDEA services.
2. Sufficient funding is available and allocated to support education services neutrally across communication outcomes.
3. Federal funds support research in all aspects of screening, diagnosis, intervention, communication, and education. Funding supports pre-service preparation of personnel to serve DHH students.
4. Funds are available to support a "financially level playing field" including coverage for EI services, technology, interventions, and educational options.

Attachment E: Edited and Updated Desired Future States

Future/Perfect State for Children and Youth Who Are DHH

Instruction, Academics, and Outcomes

1. Children who are students who are DHH (hereafter referred to as DHH children/students) have language and pre-literacy skills on a level commensurate with their hearing peers when they enter kindergarten, and maintain academic achievement at same rate as peers.
2. Early intervention and preschool programming provide a strong foundation for their school success.
3. Evidence based practices guide instruction and intervention. These include use of appropriate summative and formative assessment, frequent monitoring of performance and progress, differentiated instruction, and delivery of content and skills that may be specific to needs of DHH students such as peer social activities, technology supports, and self-advocacy).
4. Teachers, interpreters and other service providers are highly qualified, and have expertise in language development and learning in the student's mode of communication, and this expertise is competently utilized in instruction of DHH students.
5. Appropriate and high quality assessments, instructional materials, technologies and other supports are funded and readily available.
6. The needs of DHH children and youth who have other disabilities and/or ELL are fully met.
7. DHH children and youth have access to and maintenance of up-to-date and appropriate technology in home and school settings, as appropriate for the individual child. This includes appropriate technology to support individual visual, auditory or tactile learning needs. (i.e. captioning services, FM systems and accessible media).
8. DHH youth receive the coordinated social, transition and other support services in individually determined LRE settings based on the child's needs, abilities and access, in order that they are able to be confident, productive members of the community and experience career success.
9. All teachers of students of DHH are familiar with the Common Core Standards, and use data on how students are doing in the standards to inform instruction.
10. States are accountable for outcomes of their DHH students.
11. Data on DHH student outcomes is collected in a consistently across the nation and in all educational settings.

Personnel Preparation and Professional Development

1. All professionals, including interpreters and related service providers are highly qualified and have demonstrated qualifications to deliver education and services consistent with students' IEPs.

2. Teams of qualified personnel work together, including but not limited to SLPs, to provide high quality individualized services for DHH children and youth, so that no one teacher has to be skilled in all services and communication modalities. These communities of learners facilitate the delivery of evidence-based services consistent with the specific needs of the child and the family's preferences.
3. General educators play an important role in supporting the learning of DHH who might be served in regular classrooms.
4. Itinerant teachers are well-prepared to meet the needs of students at all levels, and have the resources to work collaboratively with colleagues including pediatric audiologists, interpreters, etc. to support the learning of DHH in all settings they are served in.
5. Coaching and mentoring programs as well as sustainable, continuing professional development is available to staff providing deaf education services, including but not limited to DHH professionals and adults, GenEd Teachers SLPs and audiologists.
6. University training programs provide exposure to a variety of philosophies and instructional practices, and have resources to train a sufficient number of high quality teachers and other personnel to work with all DHH children and youth.
7. Exams such as Praxis II are updated regularly to include new practices for working with D/HH students.
8. There is effective connection between IHEs and local school districts for pre and in-service teacher training.
9. Personnel prep programs provide pedagogical and practical knowledge on Early Childhood services for DHH students.
10. Training for special education teachers is executed in a way which recognizes that not all special education teachers can address the needs of children who are DHH.
11. All personnel preparation and professional development services are high-quality.

Coordination of Services

1. Readily available services for DHH children and youth are coordinated from birth through secondary school, and provided at no cost to parents. Personnel are provided necessary supports for their service delivery such as training, access to a team of multidisciplinary colleagues, time for consultation.
2. Placement does not determine extent or nature of services.
3. EI and preschool services are delivered in a seamless, family-centered approach using the family's preferred language and communication mode, as long as the child makes appropriate progress – using language benchmarks at least annually to measure progress.
4. Data about student performance, outcomes, etc. are kept and used to make program improvement decisions longitudally across all transitions. Data about DHH students who are not receiving services under IDEA, including those with 504 plans are also monitored.
5. Regular objective assessments measure across skill areas and help guide decisions about service delivery and planning for individual children.

6. Complete and unbiased information about educational options, placements and communication approaches are provided to family members and professionals on the IEP team.
7. Determination of natural environments and LRE should be more broadly defined for DHH children. School accountability measures should factor this.
8. Social experiences and connections with DHH peer and adult role models are components of programming for DHH children.
9. Transition planning begins early, includes a variety of experiences and skills, is based on assessment, family and student preference, is conducted with interagency cooperation, and leads to meaningful career outcomes.
10. Students and youth who are DHH have appropriate access to peers and adult role models.
11. There are continuous services in place for students, even after they transition out of EC, that take into the account the different developmental periods for children and address academic and social emotional learning and supports.
12. There is consistent and appropriate use of special factors in IDEA B, which are coordinated with Part C IFSP services
13. ISFPs consider and contain special factors (communication plan to address individual student communication, modality preferences and access to peers and adult role models).

Identification and Early Intervention

1. Early intervention occurs by the age of 1 month, and systems are also in place to identify children with mild hearing loss or unilateral hearing loss which may not be caught by early screenings in hospitals. Children transition smoothly from screening to early to intervention, education and post-secondary settings, during which there is coordination of services from screening to diagnosis, to intervention and onwards.
2. Early intervention services are child-driven, family-based, culturally-competent, and include family education and support and direct services to children. EI/Part C services are provided free of charge to families and are provided with appropriate intensity and frequency.
3. Language and early literacy are addressed and a range of communication approaches are available and supported.
4. In congruence with the language around natural environments in Part C, all EI programs are culturally appropriate and characterized by specific, targeted service provisions and all EI service providers have the skills to meet the unique needs of children who are D/HH.
5. EI services recognize the linguistic neutrality of the brain's capacity to learn language so that modality of language is not the key factor in instruction, and appropriate and equal emphasis is given to learning visual languages.
6. There is a system in place for identifying mild hearing loss that is often not caught in early screening.

7. There is timely access to hearing and other technology as well as services, including those by pediatric audiologists, which are provided in an appropriate manner.

Research

1. Research for all education, particularly special education and students who are D/HH is rigorous and high quality.
2. The field has access to empirical evidence about a variety of best practice factors that impact education of DHH. Some of these are effective programming for children with multiple disabilities and/or who are ELL, the best timing for detection, identification and fitting with technology and intervention, understanding brain function, impact of educational settings, executive functioning, and literacy and other outcomes.
3. Data from recent national reports about the status of services across the country and information from current project investments are used by OSEP to guide model development, replication and discretionary spending priorities.
4. Comprehensive survey and other data are available about the placement, functioning, service use and needs, progress and outcomes for DHH children. State Performance Plan data are disaggregated by disability. Other data are disaggregated by race, income, ELL and immigrant status.
5. The Dept of Ed supports research in the region of educational practices and actively disseminates best practices to the field.
6. Research identifies effective practices conducted by interdisciplinary teams.
7. Research is collected to provide a continuous profile of children from birth to graduation in terms of assessment data.
8. Data collected is comprehensive and inclusive of all DHH students, including those with 504 plans as well as those with IEPs.
9. There is access to demographic information to have understanding of profiles of students who are D/HH; both those who have 504 and those who are in special education .
10. SPP and State indicator data is disaggregated so that outcomes for D/HH children are evident.
11. There is progress monitoring used for students who are DHH in order to gather information to inform instruction.
12. Research is conducted in the fields of neuroscience, the role of executive function and exposure to first language.
13. Research is conducted on current teaching practices of students who are DHH.

Families and Community

1. Families are provided comprehensive resources at the local, state and national levels so that they are fully informed about educational and language considerations. A range of placement and communication options are available to them and their children.
2. Parents are meaningful participants and partners in the IEP/IFSP process. Families know the services on their children's IFSPs/IEPs are being delivered by qualified personnel.

3. Families have opportunities receive support for themselves and their children. Examples are parent education and training, social events to interact with bilingual, deaf people and connections with other parents of DHH children, including at first identification. Federally funded parent training centers and other support programs are well-informed and have appropriate resources to share with families.
4. Family preference is linked to professionals' training and support, and is linked to student outcomes.
5. Families make evidence based decisions which are continuously informed by child progress.
6. There are ongoing family and school partnerships to support parent education, in which schools work with families that speak languages other than English.
7. There are parent support groups for students and youth who are DHH.

Funding, Legislation, and Federal or State Supports

1. States have an effective and efficient coordination between health and education systems of access and information to services for all DHH children. State education agencies offer leadership, training, advocacy, standards and other supports to schools and personnel. States maintain performance data on all students with DHH, including those who do not receive IDEA services.
2. Sufficient funding is available and allocated to support education services neutrally across communication outcomes.
3. Federal funds are used in an equitable and transparent manner to support research in all aspects of screening, diagnosis, intervention, communication, and education. Funding supports pre-service preparation of personnel to serve DHH students.
4. Funds are available to support a "financially level playing field" including coverage for EI services, technology, interventions, and educational options.
5. Funding from OSEP to states for Technical Assistance includes money for professional development.
6. Funding is tied to family preferences and supported by evidence-based practices that link family outcomes, outcomes and funding.
7. Legislation requires interagency service collaboration to track DHH child and youth outcomes, across all age levels, 0-25.
8. Legislation supports data-disaggregation nation-wide by compelling states to report specific data, with respect to distinct student populations.

Attachment F: Participant Post-it Comments on Future States

Instruction, Academics, & Outcomes

Academics and instruction seem to be missing from the strategies, we want to collected data, but data on what?

There is a need for the collections, consolidation and tracking of data.

Added comments:

Federally mandated and coordinated data collection at the state level to track outcomes.

Establish national database for outcome data – determine assessments.

Coordinate state input/data collection.

Data would also be good to include that we are collecting instructional approaches that can be connected to good outcomes data – that would really help the

Train teachers on Common Core Standards and 21st century skills and soft skills development.

Highly qualified guidelines for all service providers.

Establish a national center/clearinghouse for meeting the needs of DHH students who are ELL.

Establish national center/clearinghouse for meeting the needs of DHH students who have disabilities.

Language and communication shall be provided (instead of combined) in Special Factors language.

Placement is child-driven and outcomes-based.

Application of LRE is based on language and communication inclusion for child.

Examine and development new technologies for instruction of professionals and service delivery.

Train teachers in new technologies and language outcomes.

Give equal emphasis to the academic and social needs of children along developmental levels, not just EI then postsecondary.

Build expectations/benchmarks across grades that incorporate the Common Core Standards.

Develop a model 0-3 and K-12 language development programs.

Require teachers and related service providers to demonstrate linguistic competence during initial licensure/certifications.

Establish through research effective instructional strategies for DHH students using What Works Clearinghouse Standards.

Deaf students mainstreamed must show evidence of content area knowledge necessary to learn in mainstream environment. (or rather, the necessary language to understand science content)

Progress monitoring system set up to track birth through 25.

Identify range of model programs contextually sensitive.

Coordination of Services

Link ECDI to Part C

Require a comprehensive IEP team to discuss on the Special Factors

Develop an effective design for itinerant services and then implement

OSEP develop "model" materials to provide unbiased information to families

Focus will be on what's right and best for each individual child and family (EHDI)

Provide continued services for all DHH children to ensure they have supports to have maximum outcomes

Child not district-based services

Mandate special factors for Part C

Inform LEAs and SEAs about special factors in Part B

Better linkages between Part C and EHDI via policy and regulation

OSEP conduct data collection on high school outcomes, indicators 13 and 14, and SOP

Establish centers of excellence in each geographic region for each option

Added comment: No

Track "special factors" in IDEA to ensure schools are using it correctly, Part C and Part B

Re-define IEP eligibility requirements for DHH students

Better communication between health and education departments – cross-over/transition relationships

Required continuous tracking system of assessment and demographics through SPP and other systems

Ask DHH adults what would make the experience of schooling better for DHH students

Place emphasis on the provision of the full continuum of educational options – Clarify LRE

Develop a strategy of coordination of language acquisition/development from 0-3 and from 3-12th grade

Merge1+ and preschool services for smoother continuum of services

Materials are available and accessible in different formats (hard-copy, and on-line) plus languages

Personnel Preparation and Professional Development

Program evaluation in mainstream – need oversight from supervision well versed in deaf education

Added comment: This would be a part of 'successful program'; you are doing follow up on pervious program.

Personnel prep will be linked to what is happening in schools with children of today

Cross training for interventions for audiologists, SLP and teachers of DHH students

Added comment: Funding for this would good.

Have OSEP priorities and competitive preference in OSEP personnel prep grants

Added comment: this is not received well by all

National standards for professionals

21st century skills are embedded in common core are teachers assessing soft skill development in authentic learning environments

Added comment: Pullout supports don't always connect with GenEd teacher to make sure that content is being delivered effectively and appropriately by both teachers.

Additional added comment: Deaf Ed teachers is full of remediation, and not even good teaching

Reinstate low incident priorities 0–6

OSEP convene a working group to discuss and make recommendations about survival of personal prep programs

Professional development is ongoing and connected to current needs and development.

Teacher prep programs to understand and respect family needs and choices.

There needs to be a sense that a children that needs a TEAM which engages

Fund training of service providers in mode of communication

Hold state dept of education accountable for ensuring deaf ed prep program surveys the state needs

Mechanisms for funding ongoing successful programs (don't require new projects)

Added comment: You don't' have to have a new idea, you just have to have a successful one

Infuse information about DHH into general education training programs and inservice.

Regular updates to the Praxis

Preparation for Pediatric support staff and SLP

Specialized training for educational interpreters

Focus on inservice training – specialization

Technology to access expertise across programs – no one can do it all

Personnel prep include understand linguistics and language development

Survey educational providers to determine if state personnel prep programs are meeting the needs of DHH students

Specific guidance on training dollars for DHH professional development.

PD follow up from mentors to see if interventions are applied in practice

Preparation to meet the needs of DHH students who were ELL.

Preparation to meet the needs of DHH students with disabilities.

Focus funding priority for training early childhood teachers.

Requirements for SLPs to have adequate training to work with DHH children (most don't)

In funding process emphasize new ideas and programs that investigate *new* practices in personnel prep

Identification and Early Intervention

Look at work on continuum of options (Look at Clerc Center)

Clarify and adjust rules in idea for 'natural environments' vis a vis DHH children, i.e. children can get services in centers

Provide parents with objective information about communication options

Ensure that Part C is free to families (like Part B)

Address shortages of pediatric audiologist

Require insurance companies to cover hearing technology

Identify effective programs and disseminate across US

Ensure Part C and EHDI are better connected via policy and regulation

Train and use deaf interventionists so families are acquainted with a variety of professionals

Increase funding for Educational audiologists Deaf/HH mentors for students and educators

Eliminate forced choices,

provide an array of services and teacher effectiveness

Encourage birthing hospitals to perform their own re-screenings.

States should respect the comprehensive services of DHH specialists not serving 'agencies'

Identify diagnostic 'centers of expertise' for infants referred from newborn screening.

Require specialized services for DHH children in Early intervention

Electronic national records to follow the child

Confirm diagnosis before child leaves the hospital

New curriculum developed for working with families, utilizing evidence based practices

Require specialized services for DHH children in Early intervention

Find way to outreach and locate infants whose families do not follow up after screening

Development benchmarks for progress

EI providers to DHH to complete intensive prep program (more than 1 week) to serve families - Certification would be better.

New assessments to measure development across domains cognitive (executive functioning), linguistic and social /emotional, One/hr a week or one/hour a month is insufficient; OSEP to set standard for home and centered service delivery

Develop assessment practices and tools and disseminate widely

Coordination of hospitals to specialists not to generalists to give overview

Require 'special factors' to be addressed as part of IFSP

Develop a list of competencies in specific language skills

List competencies in English expected at specific ages

List competencies in ASL expected as specific ages.

Develop a guide outlining the benefits of bilingualism (ASL/English) and consequences of language delays.

Reevaluate 1-3-6 to 1-2-3

Fully implement 1-3-6 and research them.

Develop EI training for DHH children using list of competencies

Research

Study academic and social emotional readiness needed to success as adults in higher education or work

Develop a national research agenda

Added comments:

What happens if an idea for national agenda, is it out or disqualified? Or will not be followed through.

What type of agenda does a national research agenda require?

Maybe substitute 'agenda' for a list of topics?

This may be too broad 'we don't want to have something that is a 'flavor of the year' and they tend to be not very good. Then things get left out or people lose interest.

At the end of the day there is a problem with the lack of research that people agree on that 'these are the things we must know to better service these children" – its not to limit the best new idea that could come.

Maybe it could be a 'national wish list' that can come from a variety of backgrounds – including 'effective instructional practices', and 'readiness for post-secondary contexts'

Research needs to include DHH adults as co-researchers and as subjects

Coordinate funding agencies White House, IES to OSEP

Develop and fund a system for tracking all D/HH students

Provide federal funding aimed at determination of parent/family preferences

Fund research targeted across a range of DHH and ELL with descriptors of DHH populations to ensure appropriate RBP application

Develop or provide research data-base of outcome measures

Support and fund demographic research on children in the public school system

Coordinate and disseminate consistent data from states regarding outcomes and demographics of DHH children

Encourage students/professionals, etc. to engage in research

Added comments:

DHH is a smaller population and its often harder

We also need to add that we have to incentivize school systems to participate in research - and parents too.

Develop research-based assessment tools

Develop national workshops on research in instruction / practice

Added Comment: Regional

Fund research that documents educational practice for DHH students

Research on professional development

Provide national training in doing and conducting evidence-based research in instructional practices in research

Increase focus on translational research

Process and protocol for acquiring relevant data

Research on process and placement options

Establish a set of agreed outcomes over a period of time

Prepare researchers to add to the data base and establish research teams

Prepare researchers to engage in a variety of different kinds of research and process and outcome research

Added comment: BOTH!

Research the language developments/ experiences of DHH students

Families and Communities

Involve families in research

Explore new technology and social media to connect people

Provide advocacy training for parent and students

OSEP fund TA and D center on Deaf/HH

Explore use of technologies for delivery of services such as skype (as a supplement)

Create format for families to access DHH adults and family mentors

Develop a blog for parents using parent-friendly language (multilingual blog)

Formal parent to parent support, birth to graduation, especial at EI level and continued through MS-HS

Involve families in pre-service education (e.g. personnel prep grants)

Multilingual, accessible website that disseminates info that leads to informs others and is independent and unbiased

Fund parent education in communication option

Develop an 'app' for deaf-friendly services (restaurants) by community

Ensure federally funded centers have accurate info on DHH (i.e. RRC, PRC)

Provide objective information about communication options to parents in EI and preschool, also language and literacy

Identify ways families like to get info and those strategies use

Teach kids and adults to advocate for themselves

Provide money and support for EI to provide families with language (both signed and other options)

Create a community info dissemination plan, e.g. an app with info and links

Capitalize on Laurent Clerc Center at Galludet as a resource

Inform other community service providers; pediatricians, dentist. So they know the resources

Fund parent education from identification through all grade levels

Give families access to deaf adult role models

Open teletherapies and EI services to rural areas – across state lines without certification restrictions

Require ALL parents to attend DHH boot camp – to dispel the myths about cooing, babbling, etc.

Funding, Legislation, and Federal or State Supports

OSEP requires states to disaggregate and report SPP data by disability. OSEP makes data available annually.

Level personnel prep playing field – match what children need.

Preparation of leadership to include university faculty (next generation), advocacy, teacher prep.

Develop and fund grant programs.

Develop and fund graduate programs.

Money follows the child.

Focus on federal policy that addresses needs of child and family.

State Performance Plans - modified goals to meet needs.

Combination of health and education services.

Money for research and education interventions.

Enforcements of current policies.

Ensure federal money to states is distributed to deaf education through monitoring.

Money to support documentation of parent choices (replicate North Carolina study).

Fund university-based professional development of current personnel.

State legislation be developed for qualified personnel.

No money = no professionals = no programs.

This money needs to stay with the DHH student.

OSEP/IDEA allow for unique emphasis to be given to the needs of DHH students so they are not lost in the broad inclusion movement.

Fund graduate programs deaf ed.

Fund preparation programs that foster collaborations between universities and between universities and school programs.

Attract diverse professionals to deaf ed - $.

Money for research and services to underserved population.

Fund outcome studies.

Inclusion philosophy and idea that "labeling" is bad creates a black hole in attention to the needs of these kids.

Revisit "adequate" "appropriate" for DHH students.

Funding needs to support continuum of quality placement options.

Attachment G: Draft Key Leverage Points

Key Leverage Points for Academics, Instruction, and Outcomes

1. OSEP should commission a study administered by experts representing the full range approaches to deaf education to assess how LRE is interpreted by the Federal government, State, and school districts. After collecting this data, the department should provide clarifying policies on best practices of LRE as it applies to deaf and hard of hearing children that will then be monitored on an annual basis by OSEP.
2. OSEP should work to develop or enhance the current federally mandated and coordinated data system so that it requires States to disaggregate and track State indicator outcome data and , annual report to congress data. In addition States should be required to develop a student profile that connects demographic data to student outcomes.
3. There should be federally mandated and coordinated data collection at the State level to track outcomes and check progress birth to twenty five of DHH students. These data collection practices should include progress monitoring.
4. OSEP will ensure that a progress monitoring system will be established to track the trajectory of DHH students' outcomes from birth through 25. Specifically, the data will look at what training the child had (comprehensive evaluation of what went into getting the child where he/she is) and this information will be connected to instructional and background variables.
5. OSEP should work to develop methodology to collect consistent data on performance outcomes from birth to 21 years on students, including DHH youth, and compel states to collect and provide the data.
6. Through research, IES should establish effective instructional strategies for DHH students using the What Works Clearinghouse. A priority should be to develop assessments that are appropriate to measure progress in language and literacy in DHH curriculum.
7. OSEP will provide a solid definition for LRE and how placements relate specifically to students who are DHH. The definition will be clear about what it means to 'mainstream' and explicit that placement doesn't only mean 'mainstream', but rather should include the whole continuum of options as well as support services that a student can receive.
8. OSEP will guide State Departments of Education to ensure that all DHH teachers will know the common core standards, and use these benchmarks to guide instruction so that students will have the knowledge and skills needed to be successful on academic assessments.
9. Department of Ed and stakeholders should develop and disseminate a definition for "highly qualified" (not minimum standards) with mandate for States to meet these definitions.
10. System of support with focus on academics, critical thinking, and social and emotional learning in children ages 6-9 10-13 14-21.
11. Provide supports and services so that all children who are DHH enter school with skills commensurate with their hearing peers.

12. Provide supports and services so that all youth exit high school with skills commensurate with their hearing peers.

Key Leverage Points for Personnel Preparation and Professional Development

1. OSEP should provide sustainability funding for low-incidence personnel preparation, including in-service and pre-service trainings. Specific topics relevant to DHH children and youth are high quality pediatric audiologists and early child service providers, including teachers, social workers and counselors.
2. OSEP should seriously consider funding quality in-service programs for all professionals who work with DHH children and youth, (audiologists, all service providers, including teachers) so they are better prepared for new roles as they occur. In-service trainings could be across disciplines and could be certificate programs.
3. OSEP funded personnel prep programs should be available for continuation of successful programs, rather than limited to innovative projects.
4. OSEP should develop priorities for personnel preparation grants based on the evidence of unmet needs.
5. Sustain high quality university training programs for all personnel who provide services for DHH children and youth.
6. OSEP should provide funding for cross training of all personnel who work with DHH (audiologists, SLP and teachers)
7. Provide support and resources for continuing education and professional development for all personnel who provide services for DHH children and youth.
8. OSEP should establish a TA center whose responsibilities include, but are not limited to, providing training and exemplary models in each of the six regions. States could be mandated to use the new center's TA resources if student data does not demonstrate increased outcomes for DHH children.
9. Actively encourage more coordination between the agencies responsible for education from 0-3.

Key Leverage Points for Coordination of Services

1. In order to emphasize the combination of health and education agencies on a State level OSEP should reach out to the Dept of Health (or any State's lead agency) to suggest to States that they use combined delivery system of diagnosis and early intervention for DHH children and youth, continuing through K-12, with particular focus on coordination service delivery..
2. OSEP should require States to document discussion of special factors related to Part B and Part C through a communication plan. In addition OSEP should work to meet the need for a strong data tracking system that includes DHH children and youth, and which drives the services they receive that would include nation and state-wide progress tracking of students so that educators and service providers are able to track the progress of DHH students through comprehensive and complete state databases.
3. OSEP should clarify under Part C that special factors must be included in the IFSP which take into consideration the child's primary language via written policy guidance to the States as done under Part B.
4. OSEP and HHS should work together to develop practice guidelines for facilitating an effective transition from C to B.
5. OSEP should reassess the age/developmental categories currently used to classify DHH students. In addition resources from OSEP which address DHH population,, including conferences, should be divided appropriately between categorizations.
6. OSEP should work to support better linkages and coordination among IDEA, EHDI, 504, post-secondary transition.
7. OSEP should ensure that there is a full continuum of high quality services that are well-coordinated and accessible families, children and youth.
8. OSEP must enforce (and establish where lacking) interagency agreements as is now being done under the new Part C regulations with regard to seamless provision of services among agencies serving DHH infants, toddlers, children and youth and their families.
9. There should be enhanced communication for a marriage between HHS and ED/OSEP – there needs to be linkage between the agencies to support a seamless access to a continuum of services, professionals and agencies across the lifespan for DHH, including transition.
10. OSEP should focus on, and support, districts in providing continued services for DHH children and youth, including those with less severe needs.

Key Leverage Points for Identification and Early Intervention

1. OSEP should study States or systems that are doing EI well and publicize their model and information nationally so that other States can follow similar models. ["Doing EI well" includes making sure children are diagnosed early and receive immediate services]
2. OSEP should prioritize and fund family education for children and youth who are DHH
3. Better identification
4. OSEP should clarify the AT act and the extent to which funding for hearing technology is covered by the agency and Part C, in order to ensure access to hearing technology. In addition there should be focus on providing better services and coordination of services across agencies, including those provided after diagnosis.
5. Initiate and support HHS and ED to work together to require States to have policies and procedures that set forth what needs to happen after referral from newborn screening.
6. Require, as part of the IFSP, continuous progress monitoring of DHH children and youth, so what the child is doing is driving programming. In addition OSEP should require all States to require home intervention for children who are DHH, when they move from part C to B , as language information is still essential to positive academic outcomes
7. Require insurance coverage for all services and technologies conducted under Part C.
8. OSEP should require States to monitor EI providers to ensure that competencies are in place for the provision of high quality, best practice services to DHH babies and toddlers.
9. Develop or clarify rules for making decisions regarding natural environments for DHH as stated in IDEA.
10. Develop assessment tools and disseminate widely (natural environments, instruction/curriculum and assessment).

Key Leverage Points for Research

1. Leverage OSEP funded PhD programs to ensure that graduates are prepared to conduct rigorous research around DHH students.
2. OSEP should fund a census of DHH children and youth in order to get good national demographic data on who's out there, ages, services they're getting, role of family, and academic achievement. There is a need for an accurate census to provide baseline data for the field before focusing on outcomes.
3. OSEP should support better data collection descriptive of DHH children and youth, which is comprehensive enough to reflect the changes in the population over time.
4. OSEP should develop and implement a national research agenda
5. Develop a national research agenda that coordinates government wide research as good information is being gathered by NIH and NSF but add to this IES.
6. OSEP, in coordination with relevant stakeholders such as NIH and NSF, will develop a national research agenda including basic, translational, and applied research aimed at improving developmental and educational outcomes for DHH children

7. Move research back to OSEP, because right now IES requirements are too specific and not as sensitive to the special needs of DHH.
8. There needs to be a broad scope of research that people are being incentivized to engage in, and entities such as OSEP should be involved in removing barriers. There should be a focus on high quality and rigorous research (which should include collaboration and large sample sizes and addressing broad section of the population).

Key Leverage Points for Family

1. OSEP should support the dissemination of complete and unbiased information and support services available to families and students throughout the lifespan of DHH individuals.
2. OSEP should use technology to continue dissemination and add that services need to be followed-up to guaranteed access and intervention (to be delivered with technology).
3. Using adults and youth as mentors/role models, career positions to match up with new/younger consumers
4. Establish national agenda focusing on those deaf and hard of hearing kids that are most needy and underserved.
5. OSEP should work to build strong partnerships that result in successful outcomes for children and youth
6. OSEP should utilize parent resource centers to help create regional focus groups.
7. OSEP should fund a DHH TA&D Center that serves as a clearinghouse and way to get information on all aspects of deafness and education. This is a portal that provides links to reputable resources (e.g., summaries of research, instructional strategies, etc.). Funding length should ensure sustainability and maintenance of resources.
8. OSEP should recommend that States evaluate give money to parent training.
9. Parent education/parent collaboration should be part of teacher training, particularly with regards to the IEP & IFSP.

Key Leverage Points for Funding, Legislation, and Federal or State Supports

1. Fully fund IDEA including Part D
2. OSEP should strengthen and enforce IDEA ensuring that all children and youth have FAPE
3. Look at various models to develop a system where federal funds will follow the child from providers and programs. The states could be the fiscal agent (lead agency for Part C). Consider funding a system where money follows the child rather than institutions.
4. Use Federal policy to be more specific around eligibility and enforcing. In reauthorization of IDEA, be more specific, give more attention to legislative statute. "This drives the bus."

5. There needs to be legislation that ensures access of all DHH children to general education classrooms through qualified interpreters, captioning programs, and any other access means.
6. OSEP should fund graduate programs, personnel development, personnel prep, professional development, researchers, etc., while keeping 'highly qualified' in mind, as it specifically relates to the DHH population,
7. Ensure funding of personnel preparation grants – if we don't ensure this, future is lost.
8. Track the progress of graduates from programs funded with personnel preparation grants, to ensure that what we paid for is being achieved.
9. OSEP will urge states to disaggregate and report SPP data by disability.
10. OSEP should work ED and HHS to develop guidance for States and insurance companies regarding coverage of services and technologies.

Attachment H: Final Key Leverage Points

Red Group:

- OSEP will ensure the sustainability of personnel preparation programs at IHEs to provide pre-service and in-service preparation for people to provide services to children who are DHH.
- Move research focus and support back to OSEP and in coordination with the agencies such as NSF and NIH, develop a National research agenda including basic, translational and applied research aimed at improving developmental and educational outcomes for DHH children.
- Data collection (birth to 25): OSEP will ensure that systematic data are collected to document demographics, outcomes, and type of services delivered to all children and youth who are DHH.
- Provide guidance to state departments of education to ensure that all DHH teachers know the Common Core standards and use those benchmarks to guide instruction so that all DHH students will demonstrate knowledge and skill on all pre-academic and academic areas: social-emotional skills; 21st century skills needed to be successful along with their peers.
- Access to full continuum: Require access to complete information and a full continuum of high-quality services and supports for children and families (0-25) with special consideration of underserved families.

Orange Group:

- Secretary of Education and the Secretary of Health and Human Services work to establish legislative and regulatory actions to remove legal and funding barriers that discourage State health and education agencies to work together with regard to seamless provision of services from birth to post-secondary transition, among agencies serving DHH infants, toddlers, children and youth and their families.
- Develop a comprehensive data collection plan for demographic information and academic achievement, including language development, which can be used by families and educators to meet individual students making, and district-, State and Federal entities to identify what services are effective and what is lacking.
- OSEP should re-define eligibility for services, LRE and natural environment for as they relate specifically to the individual family and students strengths and needs. To improve academic outcomes so that all children who are DHH enter and leave school with language, academic, critical thinking and social-emotional skills commensurate with their hearing peers.
- OSEP should provide sustainability funding for low-incidence personnel preparation, including in-service and pre-service training. That will be inclusive of any personnel who work with families and children who are DHH and all evidence-based educational approaches used educate DHH children, from birth to post-secondary transition.

Yellow Group:

- OSEP will fund areas of unmet needs to provide high-quality direct service programs which would include professional preparation.
- Create a funded database to collect information including (but not limited to): parent choice, outcomes information, demographic information (including placement settings), achievement, and available services.
- Disseminate such information to all stakeholders who would include: parents, universities, in- and pre-service programs, other providers and organizations.

Green Group:

- OSEP should provide sustainable funding for high quality personnel preparation including pre-service and in-service for all professionals who work with deaf and hard of hearing children and youth to ensure the dissemination of complete and unbiased information to families, service providers, and educators.
- OSEP will ensure a well coordinated continuum of services for deaf and hard of hearing children from identification through school-age, by designating a specific state level position responsible for implementation and compliance with IDEA.
- OSEP will coordinate with NIH and NSF on developing a national research agenda focusing on development and learning of deaf and hard of hearing children.
- Fund a data collection, analysis, and dissemination system for all children with hearing loss that includes a comprehensive, demographic census (age of identification, degree of hearing loss, mode of communication, primary language in the home, services received, educational placement), disaggregation of SPP indicators and the Annual Report to Congress.
- Clarify the definition of LRE for students who are deaf and hard of hearing and mandate the inclusion of special factors in Part C as well as in Part B.

Blue Group:

- OSEP should work to develop or enhance the current federally mandated and coordinated data system so that it requires States to disaggregate, broken down by categories of hearing loss, and track State indicator outcome data. States should be required to develop a student profile that connects demographic data to student outcomes.
- OSEP should provide sustainability funding for low-incidence personnel preparation, including in-service and pre-service trainings. Specifics topics relevant to DHH children and youth are high quality. (for example: pediatric audiologists and early child service providers, including teachers, social workers and counselors)
- OSEP, in coordination with relevant stakeholders such as NIH, IES and NSF, will develop a national research agenda including basic, translational, and applied research aimed at improving language, development and educational outcomes for infants toddlers, children and youth who are deaf and hard of hearing.

- OSEP requires, as a part the IFSP, continuous progress monitoring of DHH children and youth, so what the child is doing is driving programming, including home intervention if indicated including when they move from Part C to Part B.
- OSEP should require States to document discussion of special factors related to Part B and Part C through a communications plan.