Issues and Opportunities: A Report on the Current Status of Programs and Services for Students who are Deaf and Hard of Hearing

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Introduction

The education of children and youth who are deaf and hard of hearing remains an enigma to educators, parents, and the students themselves. While the issues are complex, solutions exist and there is evidence that the trends are reversing. To do so, however, requires commitment to the goal that all of these children and youth are capable of achieving the same outcomes as their hearing counterparts and that our work is not done until that goal has been attained. This report will summarize current issues and recent research and suggest promising practices that are evidence of progress toward this goal.

Overview and Historical Perspective

In 1975 the Individuals with Disabilities Education Act (IDEA) mandated that children with disabilities were entitled to be educated in the least restrictive environment (LRE), e.g., the environment where their typical peers were educated. With the goal that children with disabilities were not to be isolated, inclusion has been the conceptual basis of an educational system designed to provide equal opportunity for all students, with or without disabilities. Over time, it has become clear that while inclusion has served many children with disabilities very well, that is not always the case for many children who are deaf or hard of hearing (D/HH).

Communicating "differently" or without direct conversation with teachers and peers can create the most restrictive environment for many D/HH students in a classroom of hearing peers. Legally, "LRE" has been interpreted and implemented without sensitivity to, or acknowledgement for, the special communication needs presented by deaf children that often go unmet in the "least restrictive environment." The outcome has been isolation and academic underachievement. Until the conceptual basis of education (and all supporting mandates) is understood to be communication-driven for D/HH students, the system will continue to discriminate against this population. In fact, it is the inequity of our present educational system that has resulted in the further disabling of D/HH children.

At the federal level, the importance of communication as a starting point for identifying appropriate services for a child was first acknowledged in "Deaf Students Education Services: Policy Guidance" 57 Fed. Reg. 49274 (1992). This report stated that "The (U.S. Department of Education) Secretary believes that

communication and related service needs of many children who are deaf have not been adequately considered in the development of the IEP." Moreover, it points out that the child's communication needs, linguistics needs, and social and emotional needs must be primary factors in considering the least restrictive environment for each child.

The general classroom does not adequately serve all D/HH students because it frequently denies full communication access. As long as communication is perceived as secondary to the Individuals with Disabilities Education Act's (IDEA) core concept of LRE, the specific and systematic problems that are unique to educating D/HH children will continue. The intent of IDEA, is to decrease, not increase, a child's isolation (Colorado Department of Education, 2002).

The education of children with hearing loss is currently at an important juncture. As a result of several initiatives over the past five years, school programs have the opportunity to make significant, systemic changes in how services are determined and delivered. While the formula that improves a child's chances of success is becoming clearer, schools remain challenged to implement the elements of that formula consistently within the education setting as well to respond to the factors that continue to have a negative impact on this opportunity.

Current initiatives that will be referenced in this report and that offer momentum and resources to local and state interests in deaf education include:

- *Meeting the Needs of Students who are Deaf and Hard of Hearing: Educational Services Guidelines,* National Association of State Directors of Special Education (NASDSE), 2006, (www.nasdse.org);
- *The National Agenda: Moving Forward on Achieving Educational Equality for Deaf and Hard of Hearing Students*, 2005, (www.ndepnow.org);
- The annual National State Leaders Summit on Deaf Education, (www.ndepnow.org)
- The National Deaf Education Project, (www.ndepnow.org);
- *A Blueprint for Closing the Gap: Developing a Statewide System of Service Improvements for Students who are Deaf and Hard of Hearing*, Colorado Department of Education, 2002, (www.cde.state.co.us/cdesped/sd-hearing.asp).

Additionally selected regulations from IDEA 2004 affecting children with hearing loss can be located in Appendix A.

U.S. Department of Education special education data on students with hearing impairments.

Practice patterns for the U.S. are presented in the following charts based on the state reported Part B Annual Report data collection tables from Fall 2005 (US Department of Education, Office of Special Education Programs). These calculations are based on student's identified as deaf or hard of hearing as their primary disability.

1. Percent of children ages 6-21 with hearing impairments served based on estimated population statistics:

US: .11%

2. Placement of students ages 6-21 with hearing impairments:

	Outside gen ed class			Pub sep fac	Priv sep fac	Pub res fac
	<21%	21-60%	>60%			
US:	48.8%	18.25%	19.51%	4.77%	2.3%	5.81%

3. Personnel:

	Audiologists			Educational Interpreters		
	Total	Fully cert	Not fully cert	Total	Fully cert	Not fully cert
US:	1434	1182	253	6850	5406	1443

Issues and Opportunities

Accountability, as the hallmark of the No Child Left Behind Act (NCLB), has created the most significant force for instructional change in schools in many years. NCLB's commitment to all students has also provided an opportunity to focus on the performance of children who are deaf and hard of hearing and address some of the long-standing challenges. This report will highlight some of the most critical issues in deaf education, summarize recent research, and suggest promising practices.

Critical Issues Facing the Education of Children who are Deaf and Hard of Hearing

1. Accountability and oversight.

NCLB's focus on accountability has yielded the first opportunity for systemic analysis of the performance of students who are deaf and hard of hearing. States have the ability to disaggregate student test scores in order to analyze performance of their deaf and hard of hearing students and track improvement. Such an analysis in Colorado found that even though the majority of deaf and hard of hearing students are performing in the lowest of four performance categories, more in depth analysis of the data showed that 81% of all deaf and hard of hearing students were making one year's growth or more in reading (40% one year's growth and 41% more than one year's growth), 92% were making a year's growth or more in math (39% one year's growth and 53% more than one year's growth), and 92% were making one year's growth or more in writing (56% one year's growth and 34% more than one year's growth) (Johnson, 2006). This data reinforces the benefits of a growth model and promotes the premise that students should minimally be expected to make one year's grow in one year's time regardless of the grade level or state test performance level at which they are functioning. Justification for less progress should be required.

While NCLB requires tracking of assessment performance, many states still do not disaggregate test scores. Further, some states utilize alternative tests for D/HH students that may minimize academic delays. For instance, some states have allowed out of level testing where students are compared by developmental performance rather than equivalent grade/age expectations. This practice limits the ability to obtain a true perspective on the performance of D/HH students in comparison to their typical peers and may result in sub-standard expectations.

Several oversight issues continue to challenge the delivery of appropriate programming and services and ultimately raising outcomes for students who are deaf and hard of hearing. Three that are most common include:

- Difficulty providing services that are based on individual students needs. Most school districts are not large enough to offer a continuum of program options that include home school and center-based placement and service options. Intermediate school districts or service agencies and BOCES (Board of Cooperative Educational Services) offer an important solution as they provide programs for a number of smaller districts resulting in larger numbers of students (e.g., critical mass) with more options and services. However, for those who are not part of these solutions, the alternative is often fitting the student into existing programming resulting in students receiving available services rather than a program designed for individual needs.
- Administrative support and instructional leadership in schools often lack the necessary expertise to be effective. Supervision is most often conducted by program coordinators or school administrators who are not familiar with common practice standards for students who are deaf and hard of hearing or for the roles and responsibilities of educational audiologists and educational interpreters. Teachers and support staff are often evaluated on behaviors that do not directly affect the progress that students are making such as the quality of instruction, fidelity of instruction, access services, or accuracy of sign language interpretation. Further, in-service opportunities are not always relevant for teachers of the D/HH or related services personnel.
- Monitoring at the state level is limited. State level special education improvement and monitoring programs rarely focus on issues and practices that are unique to low-incidence populations such as students who are deaf and hard of hearing. This problem is confounded by the fact that few state education departments have content experts within their special education units to conduct this level of oversight.

2. Communication and communication access.

Communication access represents one of the most fundamental requirements of human development. Without access to communication, language and cognition cannot develop normally (Marshark, 2001; Sacks, 1989). Accessible communication is one where there is shared meaning between the communication partners. The impact of the loss of communication cannot be easily overcome. Full communication access, whether auditory, visual or a combined method, must begin at birth if children are to have a chance to overcome the potential negative impact of the hearing loss. Schools are particularly challenged to assure fully accessible learning experiences, especially in inclusive educational programs.

Communication occurs on a dynamic continuum that varies depending upon the environmental conditions and the communication situation as well as the message being conveyed. The mode or modes of communication used involve a wide spectrum of communication options (e.g., American Sign Language, Pidgin Signed English, Simultaneous, or "Total", Communication, Cued Speech, Auditory-Verbal, Auditory-Oral) that are primarily the choice of the parent or guardian. In addition D/HH students utilize a

variety of devices and technologies, including amplification systems, communication devices, assistive devices, and computerized notetaking. Educational interpreters (sign language and oral) are necessary for some students. Considering the variety of communication options and technologies available and/or required, it is often impossible for each school district or education agency to provide all of them. Yet because IDEA requires that services must be delivered according to individual student needs, schools are often inadvertently forced to compromise quality (e.g., use of unqualified interpreters) in order to provide the range of services and the necessary supports.

Children who are hard of hearing are often lost between two cultures – hearing and deaf. They are not deaf; they have partial hearing and they are able to use their auditory skills to participate in daily communication. The perception, therefore, is that they are hearing and, as such, they are expected to behave like their classmates with normal hearing. Typically, there is confusion about the extent of their needs and often these children are not provided with the accommodations necessary for them to access communication fully. Because they must work harder to listen and process what they hear, they experience more fatigue, more isolation, and often more depression than their hearing peers. As a result, these children are the least understood and the most disadvantaged among all those with hearing loss (Ross, 2001).

The acoustical characteristics of a classroom also play a major role in a D/HH student's ability to access communication. The invisible barriers created by noisy air exchange, heating, and refrigeration systems, along with reverberating sound from walls and ceilings that distorts speech, are exacerbated by the busy noise of the classroom. Standards exist (ANSI, 2002) that need to be implemented to assure that classroom acoustics do not interfere with a D/HH student's ability to learn.

IDEA recognizes the importance of communication access in the special considerations section, Development, Review, and Revision of IEP, Consideration of special factors (CFR 300.324).

> The IEP team must:
> (iv) Consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode;

A few states (Louisiana, South Dakota, California, Rhode Island, Colorado, Montana) have legislated a Deaf children's bill of rights and a few more have legislation pending (Alaska, Arkansas, Connecticut, North Dakota, Utah, Hawaii & Washington) (www.ndepnow.org, 2007). These regulations usually provide an action plan for how the various components of communication access are defined and implemented. Most states, however, are struggling to understand and fully implement the requirements of IDEA. These requirements were strengthened under the 2004 reauthorization by stating that the IEP team "must", rather than "shall", consider the communication needs of children who are D/HH.

For some children the lack of direct communication may also be a consideration in communication access. Deaf adults have reported that an interpreted education is a poor substitute for direct contact with teachers and peers. In these situations, every time the child wants to communicate with anyone in the classroom, he or she must do so through an adult interpreter. This process interferes with the educational dynamic - the give and take that stimulates learning. And, when children do not communicate directly with one another, the social experience suffers as well.

In addition to communication access, a child must develop communication proficiency. Because communication impacts all aspects of human functioning, from academic to social, from work to pleasure, from social-emotional to intellectual, the ability to understand and produce language defines us as humans and provides us with the means to become literate adults. The unique nature and consequence of deafness or hearing loss is that it can separate deaf or hard of hearing children from communication with others, and subsequently starve the student from active and passive learning of both academic and social skills. Communication access and competence must be a priority in our educational system.

3. Low expectations and inadequate instruction.

The Colorado Closing the Gap Report (2002) captures the current educational situation for all D/HH students well.

> *The most glaring indications of problems in deaf education are the academic achievement scores of this student population. Statistics alone cannot report a child sitting alone in a classroom struggling to form ideas and express feelings with language. Statistics cannot explain the struggle to learn concepts while hampered by inadequate communication skills. However, statistics do reveal how profound and widespread this problem is. In the state of Colorado, which has emphasized performance-based educational outcomes for all children, research shows that D/HH children –-even those with normal or above-average potential--fall far behind their hearing peers in academic achievement. In the Colorado Student Assessment Program (CSAP), scores for students with hearing loss are poor* (p 9-10).

Although gains are being made, the 2005 scores indicated that 32 % of all D/HH students still performed at the unsatisfactory level in reading, 21% in writing, and 40% in math (Johnson, 2006).

The academic achievement for students at the national level has been traditionally poor:

- Between the ages of 8 and 18, D/HH children gain only 1.5 years in reading skills (Allen, 1986);
- 30% of D/HH children graduate from high school functionally illiterate (Waters & Doehring, 1990);
- The average performance on tests of reading comprehension is roughly six grade levels lower than hearing peers at age 15 (Allen, 1986; Traxler, 2000);
- Less than half of 18 year old D/HH students leaving high school reach a 5th grade level in reading and writing (Traxler, 2000).

For the most part, these problems are not the result of a single school district failing its children but rather the statistics reveal systemic problems evident in the majority of schools. The problem associated with the education of D/HH children eventually become society's problems compounded by long-term monetary implications (Siegel, 2000). As a result of this stagnant performance of D/HH students, expectations in many schools, as well as the perceptions of the community, are that these students cannot do better. The status quo has inadvertently become the standard. This problem is further exacerbated by the fact that the performance of D/HH children has been measured within the context of other D/HH children – again, resulting in a lower standard.

Inadequate instruction also results when teachers are not properly trained or equipped to deliver instruction to their students. As more students are educated in the general education classroom there are fewer resource and self-contained deaf education classrooms. Yet many teachers were trained in this model rather than in an itinerant or consultative delivery system. The paradigm shift is that they were trained to teach children with hearing loss and instead are training adults about hearing loss. Small school districts are particularly affected because they are neither able to provide the continuum of placement options that are available in larger districts nor are they able to provide services that are highly specialized to groups of students such as those who may require instruction in American Sign Language, who utilize auditory-oral communication strategies, or who have additional disabilities. Also, in these small school districts there is likely only one teacher and that teacher may only be part-time. If the school is able to offer multiple options, quality is often compromised due to funding problems. Providing a full range of educational options for a small number of children represents a financial hardship for even the best endowed districts.

Another variable in the instructional quality formula is the training and status of educational interpreters. With IDEA 2004, educational interpreters were officially identified as a member of the related services team. States are increasingly recognizing the need for performance standards for educational interpreters by requiring passing scores on the Educational Interpreter Performance Assessment (EIPA) administered through Boys Town National Research Hospital or certification through the Registry of Interpreters for the Deaf (RID). Estimates of interpreter qualifications suggest that less than 50% of practicing interpreters meet minimum standards (Schick, Williams & Bolster, 2000). Furthermore, the interpreters in this study on average were communicating less than 60 % of the classroom content. If the interpreters perform at a minimal level, it is unlikely that they are conveying all the information occurring in the classroom. In addition to interpreting tasks, interpreters often are expected to tutor D/HH students, even though they may not be trained to do so. As the number of students receiving their education in the general education classroom increases, the need for interpreters who can provide students with a competent interpretation of the classroom content also increases.

4. Lack of evidenced-based practices.

Many of the educational practices used with students who are deaf and hard of hearing are not based on research or evidenced-based practices. A recent meta-analysis of the research in literacy by Luckner, Sebald, Cooney, Young, & Muir (2005) found that the commonly used

approaches are determined by tradition and anecdotal reports. Another study by Easterbrooks (2005) corroborates the Luckner et al findings. Easterbrooks summarizes that:

> *Research available in the area of literacy…is rife with speculation, pseudo-empirically based for the most part, deferential to a belief system, and characterized by many holes in the knowledge base. …Most articles that compared groups did not match them carefully. Most articles that compared groups looked at existing skills based on some kind of test or rating. Few engaged in experimental design, so although we can make assumptions about what is working in literacy instruction based on existing skills of a sample, we cannot point to many programs, materials, strategies, or interventions and declare there is experimental proof of their effectiveness. In addition many of the practices that are considered sacred cows in deaf education have little or no evidence to support their efficacy (p 31).*

Without clear direction to guide teachers of the deaf and hard of hearing, whether in preservice or inservice training programs, it is difficult for school programs to develop systematic, multilevel instructional programs to support literacy development.

Lack of evidence-based practices also affects the credibility of program guidelines and practice standards. In addition to academic instruction, research to answer questions in other practice areas is needed. For example:

- What are the effects of a qualified educational interpreter on student learning?
- What are the effects of a direct versus interpreted education?
- What alternative models of delivering instruction might be effective in rural areas?

Response to Intervention (RtI), while not designed for children who are D/HH, should result in improvements in instruction in the general education classroom due to its focus on scientifically-based instructional methods and progress monitoring procedures. RtI will also address the failure-based model that has existed in special education by providing early intervening support to students with hearing and/or listening conditions (e.g., unilateral and slight hearing losses, under-developed listening skills, auditory processing problems) who may not qualify for special education but who could benefit from strategic support to prevent potential frustration and eventual failure.

5. Recruitment and retention.

As within many areas in special education, staffing challenges complicate many of the issues faced by schools trying to provide quality programs and services. The low incidence nature of hearing loss adds an additional factor affecting the ability to hire and retain qualified professionals, especially teachers and educational interpreters, but also support staff such as educational audiologists, school psychologists, and speech-language pathologists who have the expertise and experience to work effectively with children and youth with hearing loss. Further, the communication methodologies that are available to teach D/HH children involve many different skills, making it difficult to find a single professional who is capable of offering the full range of communication methods. This problem becomes even more difficult when a school district has only a few D/HH children, and when their ages range

from preschool to high school. Additional layers of this problem that affect retention of staff often include:

- extensive travel in rural areas (more car time than teach time is a frequent reality) and winter driving conditions;
- part-time positions due to low numbers;
- lack of support from administrators who do not understand issues associated with the education of children who are D/HH;
- inadequate supervision;
- working in isolation without a mentor or a group of colleagues to discuss and problem-solve student and work issues;
- frustration of trying to provide quality programs with limited resources.

6. Parent involvement.

Family support and involvement in school matters is important for all children but becomes even more critical for parents of D/HH children because of the communication issues associated with hearing loss. Consider the facts that 84% of children with hearing loss are born to hearing parents and about 72% of families with children who use sign language do not sign with their children (Gallaudet Research Institute, 2002). It is not surprising then that, without training, families lack the knowledge to support their children and effectively participate in their child's educational program. As the long term "case managers" of their child's academic experience, this can result in a loss of quality control over their child's program and progress. Parent counseling and training is a related service support that is available to these families that is generally under utilized.

Parent participation in IEP meetings are generally reported to be high, but parent-teacher conferences less so. While many parents take advantage of school-sponsored special programs pertaining to issues related to their child's hearing loss and education, teachers report that frequently those family members who might benefit the most do not attend. Schools are also challenged to maintain involvement of parents as their children move on to the secondary level. In addition, seeking parent participation in school-wide activities and encouraging parents of D/HH children to become parent mentors and leaders is difficult. Many parents feel disconnected from these larger school activities particularly understanding how their children are included due to their hearing loss. Communication challenges for Deaf and non-English speaking families further complicate school involvement.

7. Early hearing detection and intervention (EHDI) and early childhood education.

The benefits of EHDI programs are well documented (Yoshinaga-Itano, Sedey, Coulter, & Mehl, 1998; Johnson, 2006). However, not all states have specialized early intervention programs for D/HH children and there are many concerns regarding the quality and expertise of early intervention providers. While these issues need to be addressed within the Part C system, the fragmentation between Part C and Part B programs can result in inconsistencies in services for children and their families.

With children transitioning from early intervention services (Part C) to preschool (Part B) with age appropriate, or near age-appropriate skills, the challenge for the school program becomes how to sustain the gains of EHDI programs. Preschool services often are not

specialized to D/HH program needs due to low numbers and a variety of communication modes. At this age parents prefer not to have their children transported across significant distances to take advantage of center-based programs that are designed for D/HH children. Typical services outside of metropolitan areas are usually provided within a general special education preschool setting, an at-risk community preschool such as Head Start, or a general community preschool. The special education services are usually delivered by an early childhood special educator with support from an itinerant D/HH teacher and a speech-language pathologist. Communication access may be limited, particularly in situations where the child is a sign language user. Although inappropriate from a developmental perspective, an educational interpreter may also "interpret" for the non-signing providers. These common scenarios often stagnate the growth afforded by the early intervention program and result in children entering kindergarten with a greater gap than when they began preschool.

8. **Technology.**

   For students who are D/HH, technology plays a key role in supporting both auditory and visual learning. The common use of pagers, instant messaging systems, video phones, as well as email and the internet has resulted in greater access to information for all individuals with hearing loss than ever before. Use of these technologies as well as assistive listening devices, classroom and video captioning, distance video equipment and computers can make the difference between assimilation and isolation and ultimately, success and failure.

   While these technologies are available, they are often under utilized due to lack of familiarity of their operation and use by staff, technological difficulties with the equipment or the set-up of the equipment, and the cost associated with acquiring the equipment. The provision of assistive technology also comes with a requirement that the technology is necessary for a child to meet his/her IEP goals by increasing, maintaining, or improving his/her functional capabilities. With the technological improvements has come a blurring of "personal" devices and those that are considered "assistive" technology. For example, FM transmission technology used to be housed in a body-worn device, then an ear-level device that booted to a hearing aid and now is integrated within the hearing aid itself. Educational audiologists have to sort out which components are "assistive" technology and which are "personal" and how monitoring and maintenance will be handled. Another complication has stemmed from the increase in surgically implanted devices, such as cochlear implants. The 2004 IDEA regulations specifically excluded these types of devices as assistive technology.

9. **Funding and resources.**

   Funding remains a ubiquitous challenge especially since D/HH students are among the most expensive to educate. The best intentioned administrator must always deal with the realities of creatively managing available resources. Existing funding is often locally-based and insufficient to meet the needs of D/HH students. Consideration for regional and cooperative programs as a means to increases options and services for students while maximizing resources should result in benefits for everyone.

Opportunities to alter the current course: A brief review of some recent and current research.

Three recent studies and reports have focused on identifying indicators that contribute to positive performance by D/HH students as well as factors that detract from performance. These are summarized in the following table that indicates 1) facilitating indicators that are corroborated by more than one study, 2) other facilitating indicators, and 3) detracting factors.

	Luckner, J., Muir, S. (2001) **Successful Attributes of D/HH Students**	**Johnson, C.D. (2005)** **CSAP Performance Indicators**	**AZ-CO Longitudinal Study of Mainstream D/HH Students (2001-2006)**
Corroborated indicators:	▪ Early identification & early intervention ▪ Self-determination ▪ Friendships and social skills ▪ Extra-curricular involvement ▪ Self-advocacy	▪ Early intervention ▪ Extra-curricular activity participation ▪ Early identification	▪ Early identification ▪ Motivated ▪ Self-advocate ▪ Social
Other facilitating indicators:	▪ Collaboration & consultation ▪ Pre-teach, Teach, Post-teach ▪ Reading ▪ High Expectations ▪ Family Involvement	▪ Use of spoken language ▪ Degree of HL	
Detracting Factors:	Not applicable	▪ Free/reduced lunch as detriment to performance	▪ Late identification of loss ▪ Language delays ▪ Unmotivated ▪ Additional disabilities ▪ Poor attendance

Data from Johnson (2005) specifically correlates the indicators listed to significantly higher performance on the Colorado State Assessment Program (CSAP). Of particular note was the finding that participation in an early intervention program led to better outcomes as measured by CSAP test performance.

To summarize, there is growing evidence that children whose hearing loss is identified early, who participate in specialized early intervention programs, who participate in extra-curricular school activities, who are motivated and able to advocate for themselves, and who have friends and appropriate social skills are more likely to have a better outcome that those who do not have these opportunities and skills.

Promising Practices

Several documents are available that provide guidance to schools regarding service delivery to students who are deaf and hard of hearing (National Agenda, 2005; NASDSE, 2006; Colorado Department of Education, 2004; California Department of Education, 2000). The National Agenda identifies eight goal areas that serve as a framework for systems change efforts in states. The 2006 edition of the *Educational Service Guidelines* for students who are deaf and hard of hearing published by the National Association of State Directors of Special Education (NASDSE) offers information and suggestions on forty-one issues under the chapters of Foundations for Educating Students who are Deaf and Hard of Hearing, Administration and Support Structures, Assessment, Services and Placement Options, and Personnel. While the

NASDSE and other guidelines provide important information and set standards for practice in the area of deaf education, they do not offer sufficient guidance on how they can be implemented. Research is also needed to determine the effectiveness of these various practices and which ones yield the best results. Reshaping people and their practices and effecting systemic change require patience and persistence as well as respect for each person, their feelings and their situation.

The following short list of practices and questions stem from the issues raised in this report. This list is not comprehensive but rather is meant to give some examples of practices to consider as part of a program review.

Accountability and Oversight:

- ❑ Does the program administrator have knowledge of current practices in deaf education, educational interpreting, and educational audiology?
- ❑ Do D/HH staff have knowledge of current practices in deaf education, educational interpreting, and educational audiology? Are they provided opportunities to meet periodically to exchange ideas and information, to attend training specifically related to their professional capacity?
- ❑ Is common planning time available for school district or agency wide planning across grade levels, placements, and disciplines (teaching and related services) to establish common knowledge, maintain communication, and assure continuity of services?
- ❑ How does the supervision process work? Does it include individuals with common expertise with the service providers being supervised and evaluated?
- ❑ How are programs and services evaluated? Is there an on-going process for development, implementation, and review?
- ❑ What percent of D/HH students participate in the regular state assessment?
- ❑ Are statewide assessment data disaggregated by disability to track performance of D/HH students?
- ❑ Do teachers and administrators expect students to minimally make one year's growth in one year's time?
- ❑ Are services determined based on individual student needs rather than what is available?

Communication and Communication Access:

- ❑ Are communication needs of each student identified and addressed in the IEP according to requirements of IDEA?
    - consider the child's language and communication needs,
    - consider opportunities for direct communications with peers and professional personnel in the child's language and communication mode,
    - consider the child's academic level and full range of needs,
    - consider opportunities for direct instruction in the child's language and communication mode,
    - consider whether the student needs assistive technology services or devices?
- ❑ What communication options are available? Are they flexible throughout the school day for each student?
- ❑ What are the provisions for student's whose communication mode(s) cannot be met within the available school services?

- ❑ What efforts are being provided to assure full communication access in the classroom? Outside of the classroom (at school)? In extracurricular activities?
- ❑ What specific strategies are teachers and staff using?
- ❑ Is there awareness of the parameters of universal design particularly as they related to the needs of D/HH students?
- ❑ Do classrooms meet the ANSI S12 acoustical recommendations for noise and reverberation?
- ❑ How are D/HH peer interactions provided and supported?

Expectations and Instruction:

- ❑ Are teachers and related services staff provided inservice and ongoing mentoring regarding:
  - their changing roles?
  - the changing profiles of D/HH students?
  - practices specific to the needs of student who are D/HH or students who have hearing/listening problems?
  - special education and general education initiatives regarding current educational practices?
- ❑ Are all staff associated with service delivery to D/HH students appropriately licensed and trained regarding the unique needs of this population (e.g.,teachers, audiologists, educational interpreters, speech-language pathologists, school psychologists)?
- ❑ How is instruction determined, student progress monitored, and instruction subsequently modified? Is there an expectation for data-driven instruction and evidenced-based practices?
- ❑ What supports are in place for underserved populations (students with secondary disabilities, from non-English speaking homes, from diverse cultural and ethnic backgrounds, from rural areas, who are lower achieving academically)?

Evidence-based Practices:

- ❑ How are decisions about programs and strategies that are used with D/HH students determined? Are they guided by recent research and evidence-based practices?
  - For example, components of a model for literacy development for students who are deaf and hard of hearing should include the following components and characteristics:
    i. Luckner et al 2005: Conversation, alphabetic principle, fluency, vocabulary, comprehension, writing.
    ii. Easterbrooks 2005*: Students who are deaf and hard of hearing can learn to read, but most must be taught to do so. Learning to read fluently and easily requires at least the following:*
        1. *Decoding, morphographemic, and/or contextual word recognition skills*
        2. *A working memory and the ability to store and recall information*
        3. *World and vocabulary knowledge*
        4. *Linguistic proficiency and the ability to understand the meaning conveyed through phrases, sentences and longer passages*
        5. *The ability to draw inferences*

6. *A motivating and supportive communication environment at home and at school*
7. *Committed and caring instructors who have a plan for imparting instruction in an organized, thoughtful, sustainable, and documentable manner* (p 34).

- ❑ How is the *Response to Intervention* paradigm affecting students with hearing loss – with IEPs? Without IEPs?

Recruitment and Retention:

- ❑ What efforts are being made to recruit and retain D/HH teachers and related service providers? Are there any special efforts for these providers?
- ❑ What amenities are provided to staff serving children who are D/HH to address travel, working in isolation, and other work conditions?

Parent Involvement:

- ❑ What efforts are made to include parents of D/HH children in general school activities?
- ❑ What types of specialized activities are available for parents of D/HH children?
- ❑ How frequently is parent counseling and training services identified on the IEP?

Early hearing detection and intervention and early childhood education:

- ❑ Is there a state system for continuous education from 0-21?
- ❑ If children are being denied eligibility to Part B at transition time, does it reflect a "wait to fail model"? Were assessments thorough enough to identify gaps in language, listening, communication and/or learning skills?
- ❑ Do transition services from Part C to Part B support, inform, and enable families?
- ❑ How are preschool services structured to provide the specialized support necessary to D/HH children while maintaining access to typical peers?

Technology:

- ❑ What assistive technologies are available for D/HH children?
- ❑ Is the equipment utilizing current technologies, wearable and usable, and providing consistent access?
  - Is there a budget to purchase FM equipment so that equipment is constantly recycled?
  - Is there a monitoring plan to assure that hearing aids and hearing assistance technology are working consistently?
- ❑ What assistive technology services are used?

Funding and Resources:

- ❑ What efforts are in place to maximize use of funds to support students who are D/HH?
- ❑ Are Medicaid funds generated? If so, how are these funds used to support D/HH students?

Summary

In many cases children with deafness or hearing loss are not receiving an adequate education. They do not have access to a full range of program options nor educational opportunities that match their needs. School districts are trying, but the combination of low incidence and high cost

is hampering even the best intentions. Academic outcomes statewide and nationwide prove that the present system is failing many of these students. If the achievement gap is to be closed, education for D/HH students must address these issues and put resources toward implementing solutions.

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Appendix A. IDEA 2004 Key Regulations Pertaining to Audiology and Deaf Education

PART B RELATED SERVICES 34CFR300.34(b)

Exception; services that apply to children with surgically implanted devices, including cochlear implants.

(1) Related services do not include a medical device that is surgically implanted, the optimization of that device's functioning (e.g., mapping), maintenance of that device, or the replacement of that device.

(2) Nothing in paragraph (b)(1) of this section—

(i) Limits the right of a child with a surgically implanted device (e.g., cochlear implant) to receive related services (as listed in paragraph (a) of this section) that are determined by the IEP Team to be necessary for the child to receive FAPE.

(ii) Limits the responsibility of a public agency to appropriately monitor and maintain medical devices that are needed to maintain the health and safety of the child, including breathing, nutrition, or operation of other bodily functions, while the child is transported to and from school or is at school; or

(iii) Prevents the routine checking of an external component of a surgically-implanted device to make sure it is functioning properly, as required in §300.113(b).

PART B - DEFINITION OF AUDIOLOGY 34CFR300.34(c)(1)

Audiology includes-

(i) Identification of children with hearing loss;

(ii) Determination of the range, nature, and degree of hearing loss, including referral for medical or other professional attention for the habilitation of hearing;

(iii) Provision of habilitation activities, such as language habilitation, auditory training, speech reading, (lipreading), hearing evaluation, and speech conservation;

(iv) Creation and administration of programs for prevention of hearing loss;

(v) Counseling and guidance of children, parents, and teachers regarding hearing loss; and

(vi) Determination of children's needs for group and individual amplification, selecting and fitting an appropriate aid, and evaluating the effectiveness of amplification.

PART C DEFINITION OF AUDIOLOGY 34CFR303.12(d)

Audiology includes-

(i) Identification of children with impairments, using at risk criteria and appropriate audiological screening techniques;

(ii) Determination of the range, nature, and degree of hearing loss and communication functions, by use of audiologic evaluation procedures;

(iii) Referral for medical and other services necessary for the habilitation or rehabilitation of children with auditory impairment;

(iv) Provision of auditory training, aural rehabilitation, speech reading and listening device orientation and training, and other services;

(v) Provision of services for the prevention of hearing loss; and

(vi) Determination of the child's need for individual amplification, including selecting, fitting, and dispensing of appropriate listening and vibrotactile devices, and evaluating the effectiveness of those devices.

PART B INTERPRETING SERVICES 34CFR300.34(c)(4)

Interpreting services includes-

(i) The following when used with respect to children who are deaf or hard of hearing: oral transliteration services, cued language transliteration services, and sign language transliteration and interpreting services, and transcription services, such as communication access real-time translation (CART), C-Print, and TypeWell; and

(ii) Special interpreting services for children who are deaf-blind.

ASSISTIVE TECHNOLOGY 300.105(a)(2)

On a case-by-case basis, the use of school-purchased assistive technology devices in a child's home or in other settings is required if the child's IEP Team determines that the child needs access to those devices in order to receive FAPE.

PART B ROUTINE CHECKING OF HEARING AIDS AND EXTERNAL COMPONENTS OF SURGICALLY IMPLANTED MEDICAL DEVICES 34CFR300.113

(a) *Hearing aids.* Each public agency must ensure that hearing aids worn in school by children with hearing impairments, including deafness, are functioning properly.

(b) External components of surgically implanted medical devices.

(1) Subject to paragraph (b)(2) of this section, each public agency must ensure that the external components of surgically implanted medical devices are functioning properly.

(2) For a child with a surgically implanted medical device who is receiving special education and related services under this part, a public agency is not responsible for the post-surgical maintenance, programming, or replacement of the medical device that has been surgically implanted (or of an external component of the surgically implanted medical device).

PART B DEVELOPMENT, REVIEW, AND REVISION OF IEP, Consideration of special factors 34CFR300.324(2)(iv)

The IEP Team must-

(iv) Consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode;

ASSISTIVE TECHNOLOGY PART B 34CFR300.5-.6 & PART C 34CFR303.12

Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities. The term does not include a medical device that is surgically implanted, or the replacement of such device.

Assistive technology service means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes-

(a) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;

(b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;

(c) Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing assistive technology devices;

(d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;

(e) Training or technical assistance for a child with a disability or, if appropriate, that child's family; and

(f) Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of children with disabilities.

PART B DEFINITIONS 34CFR300.8(b)

[2] *Deaf-blindness* means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

[3] *Deafness* means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification that adversely affects a child's educational performance.

[5] *Hearing impairment* means an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this section.