Senate Community
Affairs References Committee

Submission to:

Senate Community Affairs References Committee Inquiry into Hearing Health in Australia

On behalf of:

Royal Institute for Deaf and Blind Children

Contact: Conjoint Professor Greg Leigh
Chair, RIDBC Renwick Centre
Royal Institute for Deaf and Blind Children
Private Bag 29
PARRAMATTA NSW 2124
Ph: 02 9872 0372
Fax: 02 9873 1614
email: greg.leigh@ridbc.org.au

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1. Summary Issues and Recommendations

In this submission, the Royal Institute for Deaf and Blind Children responds to just two of the terms of reference identified for the Senate Community Affairs References Inquiry into Hearing Health:

(c) the adequacy of access to hearing services, including assessment and support services; and

(e) specific issues affecting Indigenous communities.

RIDBC has the capacity to provide further information on a wider range of issues and would welcome the opportunity to provide any further information that may assist the Inquiry in regard to matters concerning the delivery of services to deaf or hearing impaired children.

In summary, RIDBC submits that the Inquiry should consider and/or make recommendations concerning:

- the need to extend the Hearing Services Program (or the creation of another similar program at a federal level) to cover the provision and fitting of devices other than hearing aids for children (particularly cochlear implants). Such public provision of devices should be seen as a priority issue for governments;
- the important objective of achieving full population coverage by Universal Newborn Hearing Screening (UNHS) by no later than the end of 2010 as expressed by the Prime Minister in his statement of June 29th calling on all state governments to "to fast-track the introduction of universal and standardised newborn hearing screening";
- the urgent need for new and more adequate means of publicly funding early intervention services for deaf and hearing impaired children;
- the need to ensure, through formal accreditation, that funded services operate in line with best practice and are able to be comprehensive of the needs of deaf and hearing impaired children and their families;
- the need to ensure appropriate levels of qualification of teachers who work with children who are deaf or hearing impaired in early intervention, preschool and school environments;
- the need to ensure adequate levels of government funding to provide for the ongoing provision of highly specialised teacher training for teachers of deaf and hearing impaired children;
- the need for governments to fund mechanisms for ensuring that teachers are encouraged to undertake such training (e.g., through funded scholarships or the availability of HECS-liable or HECS-exempt places in postgraduate training programs);
- the need for further action by both tiers of government to address the continuing issue of ear disease and hearing loss among aboriginal children;
- the need to ensure that the establishment and funding of new programs for indigenous children with hearing loss is on the basis of analysis of current programs that have demonstrated successful outcomes through the articulation and coordination of a wide range service components, including: family and teacher education, hearing screening, medical follow-up to screening, nose blowing programs, language intervention programs, and the installation of sound-field amplification systems in classrooms.

2. Brief Background

The Royal Institute for Deaf and Blind Children is Australia's largest non-government provider of specialist early intervention and educational services for children with sensory disabilities. It is also the oldest provider of educational services to children with hearing impairment in Australia, having continually provided such services since 1860. RIDBC provides regular early intervention and educational services to more than 585 deaf and hearing impaired children. Through its audiological and other assessment services, RIDBC serves more than 2,000 children annually.

The services of RIDBC are designed to be highly individualised and responsive to the needs of the broad range of children with impaired hearing and their families. Therefore, RIDBC provides a wide range of program options in regard to both program location and intervention methodology. In regard to the latter, the vast majority of deaf and hearing impaired children served by RIDBC are in are in programs supporting the development of their oral language abilities. Indeed, RIDBC is Australia's largest independent provider of early education services based on auditory-oral/auditory-verbal interventions with more than 490 deaf and hearing impaired children in such programs. Children and families are also served in programs based on the use of a variety of other intervention strategies and communication modalities. There are programs that support children's and families' use of Auslan (Australian Sign Language) and also programs based on various forms of alternative and augmentative communication.

The guiding principle of all RIDBC programs is that there can be no assumption of a "one size fits all" approach to delivering effective services and optimal outcomes for children who are deaf or hearing impaired. To this end, RIDBC has a diverse but highly specialised professional work force that includes some of the country's leading educators in the fields of auditory-verbal therapy, auditory–oral educational techniques, mainstream educational support, and sign bilingual education.

Children and families in RIDBC programs are also served on the basis of providing programs that are accessible and responsive to the needs created by their geographic location. RIDBC has pioneered the use of remote service delivery technologies and currently serves more than 150 children and families in remote locations through the innovative Teleschool program. That program provides for the delivery of both early intervention and specialist school age services through a range of video-conferencing and remote access technologies.

RIDBC operates three independent special schools; five preschools; centre-based, home-based, and remotely delivered early-intervention programs; extensive support services for children who are integrated into regular schools; and a wide range of ancillary and support services including a comprehensive audiology centre, an assessment service, and a hearing and vision screening program for indigenous children.

In affiliation with the University of Newcastle, RIDBC administers the Renwick Centre—a centre for research and professional development in the education of children with impaired hearing or vision. Having been in operation since 1993, RIDBC Renwick Centre has become the pre-eminent provider of education for teachers of

deaf and hearing impaired children an associated professionals (such as professionals in auditory-verbal practice) in Australasia. Since 1994, more than 450 graduates have taken awards (qualifications) of the University of Newcastle for studies through RIDBC Renwick Centre.

3. Response to the Terms of Reference

This section addresses two specific issues in response to particular terms of reference:

c) the adequacy of access to hearing services, including assessment and support services; and

e) specific issues affecting Indigenous communities.

3.1 Issues in regard to the “adequacy” of services for children with hearing impairment

There is a wide range of issues that require effective responses as a basis for ensuring that “the adequacy of access to hearing services” for children with hearing impairment.

RIDBC provides habilitation and educational services to children from the age of identification of their hearing impairment until 18 years of age. The issues addressed here, however, relate primarily to the need for well-targeted and accessible early intervention services (i.e., in order to capitalise on the increasingly earlier identification of children with hearing impairment).

Following the identification of hearing impairment, the most important factor in ensuring positive long-term outcomes for hearing impaired children is the provision of prompt and effective early intervention services. Such intervention requires two fundamental components:

(a) The provision of appropriate hearing technology (hearing aids or cochlear implants) at the earliest possible stage, and

(b) The provision of a highly individualised and responsive early intervention program for children and their families.

3.1.1 The provision of appropriate hearing technologies

Children identified as having significant bilateral hearing impairment should be fitted as early as possible with appropriate assistive hearing technology. Variously, according to individual needs, the most appropriate technology may be wearable (hearing aids of various types and configurations) or implantable (including cochlear implants and other implantable devices such as bone-anchored hearing aids).

In regard to all of these technologies, there is a critical need to ensure that there is no diminution of the Federal Government’s commitment to the provision of free and universally available access to hearing services and hearing equipment under the terms of the *Hearing Services Program*. Currently this program provides for the provision of hearing assessment services and access to high quality hearing aids for all children with impaired hearing in Australia.

The Children's Hearing Services Program also provides for children who already have a cochlear implant to have access to upgrades of cochlear implant processing technology but *does not* currently provide for children to acquire or be fitted (implanted) with a cochlear implant. Where public funding of cochlear implant provision and surgery is provided it is a state-based initiative. Hence, access to publicly funded provision of cochlear implants varies widely across the nation.

RIDBC recommends that the Inquiry should consider the need for extension of the Hearing Services Program (or the creation of another similar program at a federal level) to cover the provision and fitting of devices other than hearing aids for children (particularly cochlear implants). Such public provision should be seen as a priority issue for governments.

3.1.2 The provision of appropriate and effective early intervention and educational services

The timeliness of delivery of early intervention programs is premised upon the identification of hearing impairment in children at the earliest possible time. In this regard, it is impossible to overstate the importance of programs of universal newborn hearing screening (UNHS).

The establishment of universal newborn hearing screening as a national standard will more effectively enable successful and age-appropriate developmental outcomes for all Australian deaf and hearing-impaired children. Progress towards such a national standard has been commendable and governments at all levels should be congratulated for the progress that has been made. However, there remains a need to ensure that community-wide provision is indeed the national standard.

In regard to UNHS, RIDBC recommends that the Senate Inquiry should endorse and affirm the important objective of achieving full population coverage by Universal Newborn Hearing Screening (UNHS) by no later than the end of 2010 as expressed by the prime Minister in his statement of June 29th.

Beyond newborn hearing screening, the characteristics of "best practice" for early intervention programs are well understood from the international literature. Briefly, it may be concluded that early intervention programs should be family centred in their focus and should support the family as the primary influence in the development of their child's language and communication abilities.

By definition, a family centred approach to early intervention dictates that individual programs provided will vary broadly according to the needs of different children and families. Nevertheless, universal newborn hearing screening (UNHS) and early cochlear implantation are collectively creating a situation where most children with severe and profound levels of hearing impairment are able to effectively access auditory communication. Hence, for the vast majority of children, appropriate intervention will involve assisting families to develop their children's listening and oral language abilities.

Intervention techniques that support that auditory-oral language development such as auditory-verbal therapy or other forms of auditory-oral intervention now account

for the vast majority of early intervention strategies employed. This is certainly the situation at the Royal Institute for Deaf and Blind Children. Currently, RIDBC supports 585 deaf and hearing impaired children (birth to 18 years of age). The vast majority of those children are in early intervention an early childhood programs. Of those children, more than 85% are pursuing an entirely auditory-oral pathway to communication and language development.

Deaf and children are not, however, an homogenous group. Variability in communication, language and educational needs is an enduring feature of this population and requires differential responses for different children and families. Evidence form a range of sources, including emerging data from the LOCHI study (i.e., Long-term Outcomes for Children with Hearing Impairment) being undertaken by the National Acoustic Laboratories, is testimony to this variability and the need for different program responses for different children.

Regardless of the overall positive effects associated with earlier identification and early implantation, there continues to be children for whom complete access to spoken language is not going to be possible. For these children at least, there remains a need for programs that focus on alternative or augmentative forms of communication. Importantly, it should be recognised that the need for alternative programs and communication approaches is not just a feature of individual choice or a particular program's perspective. The effects of factors such as Auditory Neuropathy Spectrum Disorder and a range of developmental disabilities (among other factors) will ensure that a diversity of communication and intervention approaches is necessary to effectively serve all children with impaired hearing.

With this information in mind, RIDBC submits that there can be no single approach to early intervention that is applied to all families under all circumstances. For the considerable majority of children, intervention based on auditory-verbal/auditory-oral intervention strategies will be the most appropriate approach. However, for other children—albeit a decreasing minority—the most viable access to social, cognitive, and language development will continue to be via sign language or some form of manual supplement to their use of spoken language.

The important point here is that early intervention programs should be responsive and able to identify children's communication access needs at the earliest possible time. Waiting until children fail to achieve language and communication skills in spoken language before providing access to an alternative communication mode will create a delay in access to language and learning that will mean that the benefits offered by newborn hearing screening and early identification of their of hearing loss will have been squandered for some children. The literature on this issue is unequivocal. Regardless of the language that a deaf child will ultimately develop; the consequences of early versus later intervention and the provision of language learning opportunities in that language (spoken or signed) are significant.

To summarise, effective early intervention involves rigorous assessment of children's and families' needs and the provision of programs that that seek to match those needs. Effective early intervention programs, therefore, are those in which:

- there is clear and precise information provision to ensure parents' understanding of the processes for development of language by deaf children

and, in particular, existing and emerging research evidence regarding the relative impact of various alternative approaches;

- there is close collaboration between educational, audiological, and medical professionals to identify all indications (and any contraindications) of potential for effective access to spoken language;
- the best possible techniques of auditory-verbal/auditory-oral communication development are skilfully applied with the children for whom that is patently the required approach;
- the use of alternative modes of communication is valued and available to families so that the minority of children who require such support can move seamlessly into or between those alternatives;
- the use of alternative (manual) communication approaches as a support "en route" to the development of full spoken language communication is possible and can be dove-tailed with skilled intervention in auditory–oral communication development for at least some children (e.g., for children with complex needs associated with factors such as Auditory Neuropathy Spectrum Disorder this approach has proved to be particularly beneficial); and
- regardless of the approach being used, there is a commitment to the skilled application of the best evidence-based techniques on the part of the early intervention program. In the case of spoken language, this means a consistent emphasis on developing speech, auditory, and spoken language skills and the application of intervention techniques such as auditory verbal therapy. In the case of children who may require signed communication, this means high levels of staff skill in the use of sign(ed) language and associated intervention techniques/pedagogies.

To achieve all of these characteristic in early intervention programs requires both (a) high levels of financial resources and (b) highly trained personnel. Each of these two requirements is worthy of comment/consideration by the Inquiry.

3.1.2.1 Adequacy of funding for early intervention program delivery

At issue here is the adequacy of funding support made available by the two tiers of government to provide early intervention services to deaf and hearing impaired children.

The low level of public resources made available to agencies providing early intervention services results in an almost complete reliance on charitable fundraising in order to (appropriately) avoid passing any costs on to the families of children with impaired hearing.

There is a clear and urgent need for consideration to be given to new and more adequate means of publicly funding of early intervention services for deaf and hearing impaired children.

Any change to funding models, however, should be such as to ensure that services that are funded operate in line with identified best practice and are able to be comprehensive of the needs of deaf and hearing impaired children and their families. Under any such models, consideration should be given to a formal process of accreditation to ensure both the comprehensiveness of service capacity and

adherence to quality indicators such as minimum levels of staff qualification and the use of evidence-based practices.

3.1.2.2 Adequacy of provision for teacher/professional education

As indicated in section 3.1.2, the provision of effective early intervention services for deaf and hearing impaired children requires the engagement of personnel with highly specialised skills. This is true for deaf and hearing impaired children at every age/educational level.

The education of deaf and hearing impaired children requires a range of specialist professional skills and knowledge that go significantly beyond that required of either teachers in regular educational environments or those in other areas of special education. Requisite specialist skills and knowledge for teachers of deaf and hearing impaired children include, among others, the following:

- Knowledge of appropriate assessment, diagnosis and evaluation methods and instruments for use with deaf and hearing-impaired children;
- Comprehensive understanding of expressive and receptive language development and language specific pedagogies for supporting acquisition of either (or both) spoken and signed language;
- Detailed knowledge of audiological interventions including the effective operation and utilization of hearing aids, cochlear implants, and other assistive listening devices;
- Detailed knowledge of a range of audiological conditions such as auditory neuropathy spectrum disorder and the associated habilitation and educational correlates of those conditions;
- Detailed knowledge of acoustic phonetics and speech perception as a basis for teaching speech and listening skills associated with oral language acquisition;
- High levels of facility with at least one of a wide range of possible educational methodologies which vary according to the mode of communication and language of instruction (spoken or signed) that is used with deaf or hearing-impaired children;
- Detailed knowledge and appreciation of cultural, historical, emotional, social, legal, and educational issues in deafness and hearing impairment;
- Highly effective communication skills (including sign language skills to a high level for teachers working with children who use that mode of communication);
- Direct practical experience with deaf or hearing-impaired students in a range of intervention/educational settings;
- Understanding of appropriate educational programming, classroom/behavioral management and curriculum development for this population.

Programs to provide this level of professional preparation are highly specialised and demand high levels of resources for effective delivery. However, hearing impairment is a low-incidence condition and the number of teachers who require such professional training is correspondingly low. In recent years there has been a number of concerning tends in the provision of professional preparation in this area and, also, in the requirements of employers (particularly at the school education level) for teachers who work with children in this area.

Over the last 20 years, the knowledge and skill base required of teachers who are to work with deaf and hearing impaired students has increased dramatically. Put simply, there is more to know about working with deaf and hearing impaired children than at any point in the history of the field.

New understandings, pedagogical advances and improved technologies are all serving to ensure progressively better outcomes for deaf and hearing impaired children. They do not, however, serve to simplify the special educational needs of this population or the need for specialist intervention in their education. To the contrary, such developments have served to ensure that that deaf children's educational needs have become ever more diverse and ever more complex. In many ways every new development serves to create more new "sub-groups" of learners who are deaf or hearing impaired that have their own particular learning needs and which place their own particular demands on the educational systems and the teachers who support them.

It is of concern therefore that, increasingly, some state education departments and some other employers of teachers of the deaf are increasingly advocating more generic, less specialized, and less intensive preparation as the minimum standard for preparation to fill the role of teaching these children. There has been a noted decrease in the minimum qualifications required of teachers of deaf children by some employing authorities (particularly state education departments)

Not unrelated to these trends has been a decrease in the number of university programs operating in the specific area of education for deaf and hearing impaired children. That number has fallen from six in 1989 to just two in 2009. The issue at stake here is not necessarily that having fewer programs is a negative outcome. Indeed, there is potential merit in the view that that quality is enhanced by concentrating specialised expertise and training capability and not in diluting it across large number of programs. The real issue is what has happened in terms of the number of graduate students undertaking training and the relaxation of the requirements of employing authorities for teachers of deaf children to hold appropriate levels of training and, by inference, appropriate expertise. It is these factors that have lead to the decreased demand for university programs.

In 1989, university-level programs were typically at the Graduate Diploma level and required a student to undertake one year of full time of study or two years (four semesters) of part-time study including 45 days of supervised practicum across a range of educational settings for deaf and hearing impaired children. The total number of hours of dedicated coursework in education of the deaf was of the order of 325. In one of the two programs still operating in Australia, the number of dedicated contact hours has fallen to just 144 hours. Notably in that same period of time, the average contact hours dedicated to education of the deaf in programs in North America has risen. The benchmark program at Washington University, for example, requires 660 contact hours and the program at York University in Canada requires 432 contact hours in deafness and hearing impairment related coursework.

International experience clearly indicates that the specialist skills required to operate effectively as a teacher of deaf or hearing impaired children cannot be adequately covered in the context of a generic special education program (even with some

limited specialist input) and cannot be adequately covered in specialist program with too few hours of appropriate coursework. There is a clear and urgent need to ensure that university level programs that are seeking to prepare teachers to work in education of the deaf are able to deliver the comprehensive course content necessary to cover the broad and expanding range of skills required by teachers in those roles.

Effective professional training in this area should continue to be, at a minimum, a one-year program of highly specialised full-time equivalent study. Even then, however, there will be a need for an extensive program of ongoing in-service education at a postgraduate level to train teachers effectively to deal with the growing diversity of needs of children in this population.

As already noted, appropriately specialised professional training for teachers of the deaf is extremely resource intensive with appropriately low-level demand. In order to sustain this provision and to ensure that such quality programming is made available and accessible nationally, there is a need to ensure adequate government support for training initiatives such as the one undertaken by joint venture between the Royal Institute for Deaf and Blind Children and the University of Newcastle. This cooperation has produced the RIDBC Renwick Centre, a centre for professional training and research in the education of children with sensory disabilities.

It was in the context of this diminishing provision of professional training and research initiatives that the Royal Institute for Deaf and Blind Children and the University of Newcastle resolved to create the Renwick Centre as a centre for professional training and research. Since 1994, the College has produced over 400 graduate teachers of the deaf and teachers of students with vision impairments. This program has partially reversed the alarming trend of diminished training opportunity and research provision in this highly specialised area. However, this has been achieved only through a mechanism that depends upon non-government funding and infrastructure support and is working in the context of increasing difficulty in attracting students into a full-fee paying postgraduate education environment (i.e., such as is now the norm for postgraduate education more broadly).

The need for government support to subsidise the provision of highly specialised and high quality training options in this area is paramount. Reliance on generic training in special education or training for teachers of children with other disabling conditions cannot be considered as a substitute for such requisite specialised training.

RIDBC recommends that the Inquiry make recommendations concerning (a) the need to ensure a nexus between appropriate qualification and the deployment of teachers to work with the population of children who are deaf or hearing impaired in early intervention, preschool and school environments; (b) the assurance of adequate levels of government funding to provide for the ongoing provision of highly specialised teacher training for teachers of deaf and hearing impaired children, and (c) the need for government to fund mechanisms for ensuring that teachers are encouraged to undertake such training (e.g., through funded scholarships or the availability of HECS-liable or HECS-exempt places in postgraduate training programs).

3.2 Adequacy of support services for indigenous children with hearing impairment

Despite considerable effort, the ear health, and consequently the hearing, of indigenous children does not appear to be improving. Early onset and chronic middle ear disease and associated hearing loss are a continuing part of the normal condition for far too many indigenous children. This is of major concern, because hearing is a prerequisite for spoken language development. Poor language abilities curb children's opportunities to access education which, in turn, limits their possibilities for their future. The causes of such poor ear health appear to be multi-faceted and would seem likely relate as much to community-level factors, such as over-crowded accommodation and poor hygiene, as to any other factors. As has been continually demonstrated, such factors are difficult to remedy.

Changing the causes of the situation with aboriginal hearing loss may well be a very long-term process. However, it should be recognised that there has been a number of interventions that have been found to improve the hearing outcomes for indigenous children. One such intervention involves the installation of sound field systems into indigenous children's classrooms providing children who have reduced hearing to better access lesson content.

Sound-field amplification systems are able to significantly enhance communication in the classroom. The system consists of a wireless microphone/transmitter worn by the teacher, a wireless receiver/amplifier, and a loudspeaker in each corner of the room. The system increases the teacher's voice level, and just as importantly decreases the distance from each child to a reverberation-free source of the teacher's voice. Some systems have a second transmitter for use by students in interactive discussions, or for use by assistant teachers, such as occurs in some indigenous classrooms.

Research undertaken by the National Acoustic Laboratories showed that use of the system resulted in a dramatic 41% increase in the rate of attainment of educational indicators during the terms the systems were installed (averaged across all children in the classes and across reading, writing and number skills) (see Massie and Dillon, 2006).

To be more successful, interventions such as this appear to be optimised when they are part of an overall process that includes such additional components as; family and teacher education, hearing screening, medical and audiological follow-up, nose blowing programs, and language intervention programs. It is apparent that success also lies in programs being longitudinal and monitored to ensure that they are thorough and consistent in their implementation.

One example of a program with a successful track record is conducted by the Greater Southern Area Health Service of NSW in collaboration with the NSW Department of Education and Training and RIDBC. This program deploys Aboriginal staff members with specific training to screen children's hearing regularly and, following set protocols, to ensure that every child receives the necessary follow up interventions. In regard to ongoing language intervention, RIDBC has had considerable success in the implementation of such programs for children in remote

communities through its Teleschool program (i.e., a program based on video-conference technology linking professionals in Sydney with children and their teachers in remote communities). RIDBC, as a support party of the Cooperative Research Centre on Hearing, is also currently undertaking research to investigate the use of this same technology to conduct screening and audiological assessments remotely in distant locations.

RIDBC strongly recommends further action by both tiers of government to address the continuing issue of early onset and chronic ear disease and hearing loss among aboriginal children. Establishment and funding of new program should be on the basis of analysis and, where appropriate, replication of models with demonstrated successful outcomes deriving from the articulation and coordination of a wide range of necessary service components. These service components include: family and teacher education, hearing screening, medical follow-up to screening, nose blowing programs, language intervention programs, and the installation of sound-field amplification systems in classrooms to provide better access to spoken communication for indigenous children with hearing loss.