AUSTRALIAN SOCIETY OF REHABILITATION COUNSELLORS INC.

ASORC

The Australian Society of Rehabilitation Counsellors Inc (ASORC)

Supplementary Submission to the Joint Standing Committee on the National Disability Insurance Scheme

On

The provision of hearing services under the National Disability Insurance Scheme (NDIS)

Supplementary Paper: Economic and Social Indicators associated with People with Hearing Impairment Aged 50 – 65 years and their eligibility for NDIS services.

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Executive Summary

This paper provides data of a statistical nature which may assist the Senate Committee in its inquiry into the provision of hearing services and the NDIS. The paper serves as a supplementary submission to the Australian Society of Rehabilitation Counsellors' (ASORC) submission to this inquiry.

The paper examines the extent to which, if at all, a social or economic case exists for providing support to people, aged 50 – 65 years with impaired hearing, under the National Disability Insurance Scheme (NDIS). It also examines the extent to which the disability specific, tiered NDIS disability assessment process properly addresses the needs of this cohort. The paper is based on a nationally representative sample of Australians aged within this cohort (9,184), with the data weighted to the population.

The study found that one in five people aged 50 – 65 years identified themselves as having fair to poor hearing. This population was predominantly male and likely to be living in rural areas of Australia. Their experience of impairment and disability impacted across all aspects of their lives and included:

- Less likely to marry; more likely to divorce
- Lower levels of education
- Under-employment
- Very, very low rates of workforce participation
- High rates of hearing aid purchases
- High rates of non-hearing aid usage
- Significant every day communication problems
- Hearing aid usage associated with leaving the workforce
- No access to vocational and disability rehabilitation services
- Significant experience of additional disability
- Reduced capacity for activities of daily living and transport
- Greater likelihood of not living independently or requiring in home supports

The conclusions drawn from the data presented in this study demonstrate that within this age cohort, hearing difficulties are associated with a significant loss of productivity, high costs associated with an ineffective and inefficient device-centric hearing services system, increased need for social and health services and greater utilisation of government pensions. The data demonstrate that people with hearing difficulties have a diverse experience of disability that cannot be simply measured or represented by an audiogram. This cohort requires access to holistic vocational and disability services which are available, but not presently being accessed by this cohort. The NDIS disability-assessment model fails to take a holistic view of the hearing impaired person. The economic and social cost of its approach is high, both to individuals and to society, manifesting as it does in costs to society resulting from productivity losses or costs of additional services and payments. Significant productivity gains and costs savings can be achieved if the NDIS adopts a more holistic, multi-disciplinary service model for clients with impaired hearing.

Introduction

The epidemiology of hearing impairment in Australia shows that a person is most likely to acquire this impairment after the age of 50 years (Wilson et al. 1992). This paper examines the social impacts of hearing impairment among people aged 50 to 64 years of age; i.e. people of working age. Previous economic analyses of deafness and hearing impairment (e.g. Access Economics 2006), found that this condition was associated with a high economic cost to society, with a substantive amount of this cost being due to lost or foregone productivity due to workforce non-participation. The recent submission from our Society to the House of Representatives Standing Committee on Health et al. inquiry into hearing and health, drew attention to a significant economic cost associated with hearing and health service over utilisation.

The purpose of this paper is to document the extent to which, if at all, a social or economic case exists for providing support to people with impaired hearing under the National Disability Insurance Scheme (NDIS). Discussions surrounding hearing impairment and the NDIS has addressed factors such as the use of a clinical measure of impairment as being the sole criteria for assessing eligibility for funded packages. Similarly, within the design of the NDIS, concern has been expressed that people whose level of impairment is assessed as being at Tier 2, do not qualify for substantial funding under the NDIS. A particular concern discussed within submissions to this current Senate Inquiry has been the fact that the experience of more than one disability, each of which is assessed as being Tier 2, does not qualify a person to access support under a Tier 3 package.

Method

The data reported in this paper were collected by an independent Australian market research company, instinct and reason. This company regularly conducts nationally representative studies of people aged 50 years and over. The data reported herein were collected over a series of 15 consecutive surveys between 2013 and 2016, with each sample consisting of approximately 1,000 people. In three waves of this study, respondents were asked about their experiences of hearing and device usage. Within the total sample there were 9,184 people who reported their age as being less than 66 years. Of these people, 1,650 participated in a study wave that posed questions in regards to their hearing. This paper reports descriptive statistics about peoples' experience of living with impaired hearing. Respondents are asked to self-report their experience of hearing on a Likert Scale of poor to excellent. Existing population studies have shown that people who report their hearing as fair or poor, notably have significantly different social and health outcomes, than other citizens. To this end, in this study, people with fair to poor hearing, are compared with respondents who rated their hearing as good through to excellent. For the purposes of clarity, data tables reported in this paper simply compare respondents with fair to poor hearing, with the rest of the sample. Within the statistical analysis, outcomes for people with fair to poor hearing, were compared with all respondents who rated their hearing as good through to excellent.

Similarly, for the purposes of analysis and reporting, the scale used to assess life satisfaction was dichotomised following the conventions established within the Australian Unity Wellbeing Index. Within that series of population studies it was found that people who reported a score of less than six, on a scale of 1 to 10, were notably more at risk than other citizens.

Where appropriate, adjusted standardized residuals (ARs) are reported in this paper. The adjusted standardized residual provides the reader with a sense of the extent to which the outcome is practically, as much as statistically, important. A positive AR means that the attribute or outcome is more likely to be experienced by respondents, and a negative AR, meaning they are less likely to experience the outcome or attribute. Typically, ARs of less than 2.0 are not statistically significant, and as such, are not reported. As ARs increase in size, positively or negatively, the attribute or outcome is more practically important. An AR of six, for example, could be read as being three times more practically important or greater, than an AR of two etc (see for example Table 3).

Results

This studied identified that 19.7% of the total study sample (i.e. 325/1650) identified their hearing as fair or poor. Of these 5% (80 people) reported owning a hearing aid. In addition, 41% reported using their hearing aid rarely, if at all. Their average (mean) age was 57.7 (s.d. 4.4 years) years. Self-rated fair to poor hearing was more highly associated with being male (63%) than female (37%) (X2 = 55.7 (3); p,.001; AR 6.7). Compared to people who rated their hearing as good or better, people who rated their hearing as poor or fair were more likely to report living in rural Australia (X2 = 12.5 (6); p.05; AR 2.3). Table 1 presents data on hearing impairment and marital status. These data show that a person who rates their hearing as poor or fair is either more likely to have been never married, or if married, more likely to have been divorced (X2 = 38.6 (18); p.003).

Table 1: Marital status

Indicator	%	Comparator: Excellent hearing	AR
Never married	20.3	10.8	3.3
Married	43.1	59.3	-3.6
In de factor relationship	10.5	8.8	0.7
Widowed	4.3	5.1	-0.2
Divorced	19.7	11.9	1.9
Separated	2.2	4.1	-1.0
Other	0.0	0.0	-1.1

Table 2 reports data on peoples' educational attainment. Compared to people who rated their hearing as good or better, people who rated their hearing as poor or fair were more likely to have completed a trade and were less likely to report having completed university training (X2 = 55.1 (18); p.001; AR – 3.0).

Table 2: Educational status

	%	Comparator: Excellent hearing	X^2	AR	P value
No formal schooling	0.0	0.0	55.1	-0.7	.001
Primary schooling	0.0	0.3		-0.5	
Some high school	35.7	24.1		2.1	
Completed high school	19.7	28.6		-1.0	
Trade/technical	28.3	22.4		1.9	
University completion	15.1	20.7		-3.0	
Other	1.2	3.7		-0.9	

Table 3 reports on respondents' employment status. Compared to people who rated their hearing as good or better, people who rated their hearing as poor or fair were less likely to report having a managerial or professional job or to do home duties while being more likely to either be a student or be retried, living on a pension (X2 = 158.3 (39); p.001).

Table 3: Employment status

Status	HI %	Comparator: Excellent hearing	AR
Manager	4.0	10.9	-4.2
Professional	1.9	5.8	-1.9
Para-professional	4.2	5.1	-1.2
Trades	1.9	2.0	0
Clerical	5.2	6.8	-3.2
Sales & service	5.9	5.8	0.2
Machine operator	1.2	1.4	-1.2
Labourer etc	7.2	5.4	2.2
Unemployed	7.1	3.1	1.3
Homes duties	5.2	14.3	-3.6
Student	4.0	0.7	4.3
Retired (self - funded)	8.0	10.2	-1.0
Pensioner (full or part time)	35.8	22.4	6.8
Other	8.0	6.1	1.4

Table 4 reports data on the experience of difficulties in activities of daily living. Compared to people who rated their hearing as good or better, people who rated their hearing as poor or fair were more likely to report difficulties climbing stairs (X2 = 58.7 (3); p .001; AR 5.2), accessing motor cars (X2 = 22.6 (3); p .001; AR 2.6) or using public transport (X2 = 19.4 (3); p .001; AR 2.0).

Tables 4 through 7 consider factors impacting on peoples' capacity for independent living. Table 4 provides data that show people with fair to poor hearing have greater difficulties climbing stairs, getting into or out of a car and experience difficulties using public transport.

Table 4: Problems with activities of daily living

Indicator	% HI Difficulty	Comparator Excellent hearing %	X^2	AR	P value
Climbing stairs	56.9	26.1	58.7	5.2	.001
Accessing cars	31.8	20.3	22.6	2.6	.001
Use of public transport	20.3	9.0	19.4	2.0	.001

Table 5 provides data that show people with fair to poor hearing have greater notable difficulties with a host of activities of daily living, including a reduced ability to maintain their house or garden, do their own shopping or cooking.

Table 5: Activities of daily living

Indicator	% HI Cannot do	Comparator: Excellent hearing %	X^2 (df 12)	AR	P value
Grocery shopping	9.9	1.7	100.9	6.9	.001
House cleaning	12.7	6.1	117.1	3.9	.001
Washing up	8.4	1.4	103.1	5.8	.001
Minor house repairs	21.9	9.8	149.8	6.2	.001
Wash car	16.5	12.9	94.1	3.6	.001
Cooking	8.4	4.1	136.9	5.6	.001
Light gardening	15.1	3.7	120.7	5.7	.001
Heavy Gardening	27.1	17.9	63.2	3.0	.001
Lifting	23.6	16.9	87.2	3.0	.001

Table 6 provides data that show people with fair to poor hearing report statistically significant higher levels of concern regarding their continued ability to avoid further disability or to live independently.

Table 6: Personal Independence

Indicator	% HI Concerned	Comparator Excellent hearing %	X^2 (df 3)	AR	P value
Mobility	86.2	78.6	9.5	2.8	.023
Loneliness	70.1	59.0	11.2	2.9	.011
Physical disability	89.2	79.7	15.7	3.7	.001
Mental disability	84.6	68.7	29.7	4.0	.001
Loss of independence	89.8	76.9	22.1	3.2	.001

Table 7 provides data that show people with fair to poor hearing are less likely to live independently than other community members.

Table 7: Independent living

	%	Comparator: Excellent hearing	X^2 (df 6)	AR	P value
Live independently	85.9	92.9	29.4	-2.2	.014
Live mainly independently (with home help)	1.5	2.0		-0.1	
Live mainly independently (assistance shop/cook)	4.9	1.4		1.3	
Aged care	0.0	0.0		-0.5	
Other	5.2	2.7		1.2	
Prefer not to say	2.5	1.0		2.0	

Hearing aid usage and benefits

Earlier in this paper it was reported that while 19% of the sample reported fair to poor hearing, only 5% of the sample reported using hearing aids. In this section benefits associated with device usage are reported.

The data showed that people who rated their hearing as fair or poor and who had a hearing aid, reported comparable rates of life satisfaction to those whose hearing was good or better. By contrast, people who rated their hearing as fair or poor and who did not own a hearing aid, reported considerably lower levels of life satisfaction (X2 = 47.5 (3); p.001; AR 6.7). Similarly, people who rated their hearing as fair or poor and who did not own a hearing aid, reported poorer self-assessed health than other people (X2 = 57.5 (3); p.001; AR 7.1). Hearing aid ownership was also associated with a statistically significant difference in work status, with device users reporting being more likely to have retired from work (X2 = 11.1 (5); p.05; AR 2.4). People who rated their hearing as fair to poor, even when owning a hearing aid reported everyday difficulties hearing, even when they owned hearing aids. Some 34% reported difficulties listening to radio or TV; 47% reported difficulties following conversation in a car; 23% reported difficulties hearing clearly at the cinema and 38% reported difficulties hearing clearly when socialising with friends.

Discussion and conclusions

One in five people aged between 50 and 65 years, in these studies reported their hearing as being fair to poor. The rate of hearing aid usage was approximately 20% (higher than earlier studies which reported 16% (Hogan et al. 2001)) while the non-usage rate of devices was high, with 26% reporting that they never used their device. A cohort effect potentially exists here. When analyzing this data set for people aged over 65 years, self-reported device non-usage rates were lower. It has long been speculated that as the baby-boomer cohort moved through the services system, that peoples' readiness to accept poorer than expected outcomes would decline. These data lend support to such a thesis.

The workforce participation rate for this cohort was a staggeringly low 31.9%. Participants who rated their hearing as being fair to poor also experienced significant disability and limitations across a wide variety of activities of daily living and reported themselves as being at risk of acquiring further disability. They reported a lower rate of independent living as well as noting a wide range of factors that placed them at risk of requiring support in maintaining their capacity to live independently. While hearing aid ownership was associated with higher self-ratings of life satisfaction and self-assessed health, such ownership was also associated with a greater likelihood of not being in the workforce. Respondents also reported difficulties in hearing and listening across an array of everyday living situations, even when using hearing aids.

This paper has demonstrated that deafness and hearing impairment are associated with factors that incur significant costs to the Australian economy, either through a massive loss in productivity or because of additional health and social services required. The data also signal that in the absence of appropriate action, further avoidable costs will be incurred by people requiring care earlier than need be. The data reported in this paper demonstrates that a wide array of health and social issues are associated with living with fair to poorer hearing. As such, the paper provides irrefutable evidence that a disability assessment process, based solely on an audiometric measure of hearing impairment does not sufficiently encompass the experience of disability experienced by these individuals. The data also problematises the existing, single disability approach adopted by the NDIS. The data show that the experience of disability occurs within a broader context of health and wellbeing, and that a person's overall capacity or potential to participate in society, such as in paid work, needs to be criteria for determining access to the NDIS. These data show that people with

impaired hearing lack access to equal education outcomes as well as employment opportunities. Hearing impairment is associated with the unnecessary and early separation of people from the workforce.

The data reported herein questions the efficacy and efficiency of the existing model of hearing services, which is device centric. While participants in this study reported a higher than average rate of purchasing hearing aids, they also reported a very high rate of dissatisfaction with such devices, evidenced in both the non-usage rate and the reported rate of persistent hearing difficulties, even if one owned a hearing aid. We also note here that presently such workers do not routinely receive government support to purchase their hearing aids and that they live on low incomes. With hearing devices easily costing approximately $10,000 every three years, the personal and social cost of an ineffective system is noted. Within the existing system of hearing services, people assessed as having complex support needs are solely seen by practitioners from Australian Hearing, or perhaps a cochlear implant clinic. These systems do not employ practitioners with the necessary workforce rehabilitation skills that are evidently required to keep people in the workforce and to ensure a comprehensive service outcome that contributes to the productivity of the nation. The data demonstrate that people with fair to poor hearing require access to vocational and disability support services provided by individuals who are properly qualified to conduct such assessments, case management and service provision. The appropriately qualified professional in this instance is the Rehabilitation Counsellor who is a Full Member of the Australian Society of Rehabilitation Counsellors.

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