

Investigation into hearing impairment among Indigenous prisoners within the Northern Territory Correctional Services

Report

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Table of Contents

1.	Executive Summary	page 3
2.	Introduction	page 3
3.	Purpose	page 4
4.	Method	page 5
5.	Equipment	page 6
6.	Results	page 6
7.	Inmates' Self-reports	page 8
8.	Discussion	page 10
	• Implications for NT Corrections	page 12
	• Use of amplification devices	page 14
	• Hearing loss as a barrier to rehabilitation	page 15
9.	Recommendations	page 15
10.	Conclusion	page 16
Appendix A: Forms used in this project		
	(1) History Questionnaire	page 18
	(2) Audiometer Screen Test	page 19
References		
		page 20

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1. Executive Summary

An investigation among inmates in Northern Territory correctional facilities found more than 90% of Indigenous inmates had a significant hearing loss. Comments by inmates indicate that hearing impairment is often a significant disability in a custodial environment that contributes to the breakdown in communication with prison officers.

This project identified that some experienced corrections officers have developed communication skills that help them communicate more effectively with inmates with hearing loss and that the use of amplification devices can lessen communication problems experienced by inmates with hearing loss. These results suggest there are potential benefits in addressing widespread hearing loss among NT Indigenous inmates. These benefits include improved inmate management practices and enhanced wellbeing among inmates, as well as better rehabilitation outcomes and lower levels of recidivism.

2. Introduction

Within the Northern Territory Corrections, Indigenous inmates are over represented. In 2010 there were 1100 inmates with 82% being Indigenous people¹ although Indigenous people comprise only 30% of the NT population. There is national concern about the over representation of Indigenous people in the criminal justice system².

There has been speculation about the role that widespread hearing loss in Indigenous communities may play a part in the overrepresentation of Indigenous people in the criminal justice system^{3,4}. If a significant proportion of Indigenous inmates have a hearing loss there are important implications for the criminal justice system overall, including corrections facilities⁴.

The higher prevalence of hearing loss among Indigenous adults is mostly an outcome of pervasive childhood ear disease among Indigenous children. Indigenous people experience ear disease that starts earlier, lasts longer and reoccurs more often than other Australians⁵. The worst ear disease that affects a higher proportion of people occurs in communities where there is greatest general disadvantage; such as in remote Indigenous communities in the NT. For example, crowded housing spreads infection and compromises hygiene leading to more children experiencing persistent infections⁵. These persistent ear infections during childhood can damage the ear drum and other middle ear structures, so that adults with a history of persistent ear disease often have some degree of permanent hearing loss. The World Health Organisation reports Australian Indigenous people have the highest rate of perforations of the ear drum of all countries surveyed⁶. Because of the early onset of this type of conductive hearing loss, people may be unaware that they hear differently to others.

One study in a youth detention centre in the Northern Territory⁷ suggested as many as 90% of Indigenous youth in detention may have a hearing loss¹. In 2010 the Senate Hearing Health Inquiry⁴ raised serious concerns about hearing loss among Indigenous inmates.

This Senate Inquiry⁴ made a number of recommendations including recommendation 27 which directly relates to custodial institutions.

Recommendation 27

The Committee recommends that the Department of Health and Ageing work closely with state and territory jurisdictions to develop and implement a national plan which:

- (a) provides resources to conduct hearing assessments for all Australians serving custodial sentences who have never received such an assessment, including youths in juvenile detention; and
- (b) facilitates prisoner access to those hearing assessments; and
- (c) encourages a high level of participation in those hearing assessments; and
- (d) makes the findings of the hearing assessments available to the public (within privacy considerations).

The response of the Australian Government to this recommendation was as follows.

The Australian Government accepts in principle this recommendation.

States and territories have responsibility for both the management and operation of prisons and juvenile justice centres and screening for hearing impairment.

The Australian Government will bring this recommendation to the attention of the state and territory governments.

The Australian Government is committed to supporting the delivery of initiatives and services to hearing impaired Australians, including those in custodial settings. A person who already has a hearing problem diagnosed, and is already in receipt of Commonwealth funded hearing services at the time they become incarcerated, may continue to receive Commonwealth funded hearing services during the period of incarceration, provided that the prisoner initiates the provision of those services.

Any medical attention leading to the diagnosis of a hearing problem, or provision of hearing services which is initiated by a custodial authority, or carried out on behalf of a custodial authority, must be funded by the relevant state or territory.

**Extracted from the Response to the Senate Community Affairs References Committee Report HEAR US: INQUIRY INTO HEARING HEALTH IN AUSTRALIA MAY 2011 Hear Us: Inquiry into Hearing Health in Australia Government Response*

3. Purpose

In response to the recommendations in the Hear Us report the superintendent of Darwin prison (Robert Miller) instigated an investigation into hearing loss among Indigenous inmates that was carried out by Troy Vanderpoll, an Aboriginal Liaison Officer who has had training and experience as an audiometrist in the defence forces.

Within the Northern Territory Corrections inmates are not routinely screened for hearing loss. As result there is a potential for inmates with hearing impairment to remain unidentified throughout the period of their incarceration.

This audiological threshold study was conducted to determine 1) if there are a significant number of Indigenous inmates with hearing loss, 2) examine the implications of hearing loss in a custodial setting and 3) consider approaches to minimise any adverse impacts of hearing loss among inmates.

4. Method

This study initially tested the hearing status of Indigenous inmates within the Darwin Correctional Centre (DCC). 44 Indigenous inmates within Darwin prison were tested over two weeks. Further testing was then conducted within the Alice Springs Correctional Centre (ASCC) where 90 inmates (20% of the Indigenous prison population). In both institutions inmates also completed a verbally administered questionnaire, (see Appendix A), which elicited comments on experiences of hearing problems. All questionnaires were conducted verbally in a face-to-face setting, using hand held amplification devices with inmates found to have a hearing loss.

Inmates involved in hearing screening included remand and sentenced prisoners, both male and female inmates. The average age of inmates tested within DCC was 38 years old with a range from 20 to 60 years old. The average age of inmates tested within the ASCC was 33 years old with a range from 19 to 68 years old. The combined average age over both groups was 34 years old. In total 5% of Darwin Correctional Centre's Indigenous population and 20% of Alice Springs Correctional Centre's were tested. In total, 13% of the total Indigenous population of NTCS have had their hearing tested.

Inmates tested within the Darwin facility had volunteered to have their hearing tested. The testing was carried out by a staff member well known to inmates. Because of concerns that the high prevalence of hearing loss at Darwin prison may be related to some type of self-selection bias, at the Alice Springs facility whole groups of inmates within various sections were tested, so that a larger and more representative sample of inmates were tested. The testing protocol involved the group to be tested being verbally briefed on the hearing test, then a hearing amplification device was displayed and after testing, participants identified as having a hearing loss, were given the opportunity to wear the device and give feedback on their experiences.

Before testing, information was read out to each of the participants explaining the purpose of the testing and that individual results would remain confidential. Each test took approximately 15 minutes and was conducted in one of six areas. These areas were chosen for their low level of background noise to ensure that the ambient noise was $\leq 45\text{dBA}$.

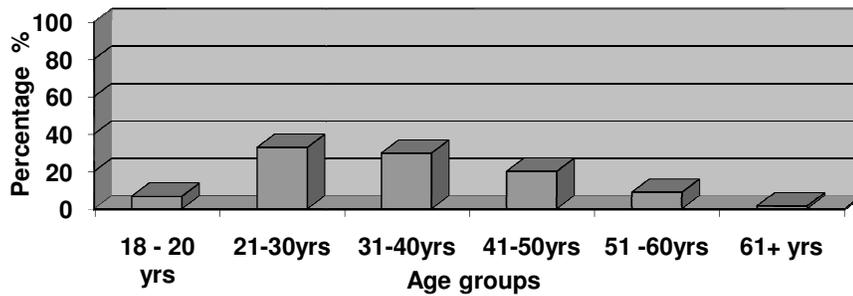
For the purpose of averaging individual test results across all frequencies, results greater than 90dB was scaled to 90dB which was the maximum setting on the Threshold testing devices. Hearing tests were conducted using Pure Tone Air Conduction Audiometry, following the basic audiometric test frequencies. While testing identified hearing loss among inmates the testing protocols used in this study were not able to identify the type of loss, whether conductive, sensorineural or mixed hearing. An investigation that conducts a full audiological assessment on inmates is required to be able to do this.

Thresholds were measured in both ears using six frequencies; 250Hz, 500Hz, 1000Hz, 2000Hz, 4000Hz and 8000Hz. Each frequency was threshold tested from 0 to 90dB as detailed below.

- <25 dB Hearing within normal limits
- 26-40 dB Mild hearing loss
- 45-60 dB Moderate hearing loss
- 65-90 dB Severe hearing loss
- >90 dB Profound hearing loss

Table 1

Ages of Subjects Tested



5. Equipment

Audiological testing was conducted in a quiet room in six locations. Each location was measured for ambient noise levels by a portable sound level meter (QM-1589 IEC Digitech IEC 651 Type II). Ambient noise levels in each room were ≤ 45dBA. Through out the testing process further random ambient noise checks were conducted.

Within the DCC threshold testing was conducted using a Madsen Micromate 304 Screening Audiometer, with ME-70 Noise-Excluding headset fitted with THD39. In ASCC the threshold testing was conducted using a Madsen Itera II Audiometer with Sennheiser HAD 200 Noise Excluding headsets.

The officer conducting the hearing screening was trained to conduct audiological testing within the Australian Army employed while working as an Advanced Medical Assistant and had 12 years experience as an audiometrist. The testing was conducted in conjunction with Prison Medical Services

6. Results

The results of the Pure Tone audiometric testing is the combined average of all frequencies tested 250Hz, 500Hz, 1000Hz, 2000Hz, 4000Hz and 8000Hz. This was established individually for each ear and represents all types of hearing loss. The results are displayed as individual institutions and then combined as Northern Territory Corrections Services (NTCS).

Table 2: Distribution of inmates' hearing loss

Darwin Correctional Centre	Normal 0-25 dB	Mild 25-40 dB	Moderate 45-60 dB	Severe 65-90 dB	Profound 90+ dB
	6.8%	52.2%	38.6%	2.2%	0%

Alice Springs Correctional Centre	Normal 0-25 dB	Mild 26-45 dB	Moderate 46-64 dB	Severe 65-90 dB	Profound 90+ dB
	4.4%	58.8%	23.3%	13.3%	0%

Combined Correctional Centre's	Normal 0-25 dB	Mild 26-45 dB	Moderate 46-64 dB	Severe 65-90 dB	Profound 90+ dB
	5.2%	56.7%	28.3%	9.7%	0%

The data in these tables indicates a significant hearing loss among 93.2% of all Indigenous inmates tested within the DCC having >25dB hearing loss averaged over all frequencies tested. At ASCC where a larger group and whole sections of inmates found 95.6% on inmates tested with a significant hearing impairment.

Hearing averages over the entire test group indicated mild to moderate hearing loss across all spectrums in both ears and in both male and female Indigenous inmates.

Table 3a: Hearing average – better ear



Table 3b: Hearing average: worse ear

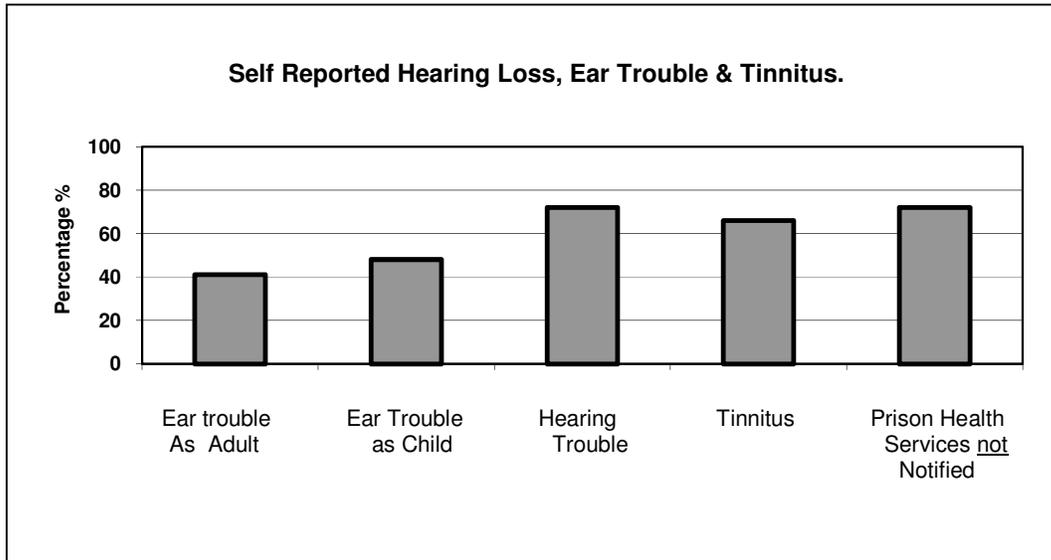


Further testing of 15 non-Indigenous inmates at Darwin Prison who volunteered to have their hearing tested was conducted. None of the non-Indigenous inmates tested had a significant hearing loss with an average of 19.8dB which falls within the Adult Australian Average⁸. Past studies among non-Indigenous inmates have generally found a higher prevalence of hearing loss among non-Indigenous inmates than in the general community^{9,10}. Given the small number of non-Indigenous inmates tested and the possibility of a selection bias it cannot be concluded that there will be no hearing loss found among non-Indigenous inmates, even though the scale of the problem is clearly of an entirely different magnitude than among Indigenous inmates.

7. Inmates' Self-report

A verbally administered survey was given to all inmates tested. Out of all participants that indicated they had hearing problems 72% had not notified Prison Medical Services of their hearing loss. A total of 66% of all subjects reported they suffer from ringing in their ears (tinnitus).

Table 4: Self-report



The information gained from inmates' self-report clearly indicates that a proactive program to identify hearing loss among inmates is needed. The majority of inmates found to have a hearing loss did not inform authorities, often because they are not aware that they have a hearing loss. With early onset hearing loss caused by middle ear disease it is common that people are not aware that they hear differently to others¹¹. The scarcity of audiological services in remote communities also means that inmates are likely to never before had their hearing tested.

Examples of some of the comments made by Indigenous inmates that reported hearing loss follow. Comments were classified in three categories 1) reported ear health problems, 2) difficulties communicating in the correctional or criminal justice environment and 3) difficulties hearing outside the correctional environment.

1) Reported ear health problems

Inmates with hearing loss commonly reported the use of sticks and other foreign objects to clean their ears and self-treat pain. 11.9% of inmates made these types of comments. Comments included:

- *I put sticks in my ears to stop the pain.*
- *I put rocks in my ears as a child when it was hurt.*
- *Had big mob maggots in ears,*
- *Got rock in left ear since I was kid him rattle around all the time*
- *I hear wooden noise in ear all the time from matchstick stuck as kid in ear.*
- *Pain at night when him cold, no sleep.*
- *Him ear ringing I can't sleep, him too loud.*
- *I can't concentrate the ringing make it too hard.*
- *Big fight eyes no good same with ears no good.*

2) Difficulties communicating in the correctional or criminal justice environment.

Indigenous inmates with hearing loss reported difficulties following officers' instructions. 76% (of all prisoners) reported this as a detrimental element of their incarceration. Other comments included:

- *I can't hear them officers and I get in trouble.*
- *I can't hear on the phone most of the time.*
- *I don't understand that court fella and I can't hear what him said.*
- *Get in trouble from police can't hear what their talking.*
- *Can't hear them police or them court man.*
- *Trouble from police and officer when them talk to me can't listen good.*
- *Little bit trouble from police cause I can't hear.*
- *Can't hear TV at all (This inmate demonstrated how if he blows his nose air escapes his ears, indicating that he has perforations of both ear drums)*
- *Hard for me in prison.*

3) Difficulties hearing outside the correctional environment

Inmates with hearing loss commonly reported that their hearing loss had resulted in violent altercations due to misunderstanding. 10.2% of inmates volunteered these types of comments. Other comments included:

- *My old man flogs me because I can't hear him.*
- *I can't hear what my family says.*
- *My family know to speak loud to me.*
- *Family always tells me stuff I can't hear*
- *If him family sing out I can't hear.*
- *I stop talking to friends too much trouble.*
- *School was hard for me to listen.*
- *Community get angry with me for no hearing.*

Key areas that were identified as being difficult to communicate within the criminal justice system included:

- Probation and Parole
- Parole Boards
- Police
- Courts
- Medicare
- Video Link Up

8. Discussion

The results of these hearing tests indicate an alarming prevalence of hearing loss among Indigenous inmates in the Northern Territory. A question that arises is how different is the prevalence of hearing loss among inmates to that of the general population in the remote NT communities where most inmates come from.

There have been few studies to identify the proportion of the adult Indigenous population that have a hearing loss in NT communities. Hearing tests of 125 adults carried out on the Tiwi islands in 1984 found 34% of adults had a significant hearing loss (>25dB)¹². Another study of a group of Indigenous tertiary students from remote NT communities attending Batchelor College in 1990 found 20% of 100 Indigenous students, drawn at that time mainly from remote NT communities, had a hearing loss of >25dB¹³.

Another 2007 study¹¹ found 45 % of a group of 33 Indigenous trainees had a hearing loss (>25dB). It also described that those workers with a hearing loss has significantly more performance, communication and interpersonal difficulties. Not all workers with hearing loss had interpersonal difficulties in this study, but all workers with interpersonal difficulties had a hearing loss. A comparison of different studies of hearing loss among people from remote NT communities is shown in table 5.

Table 5: Hearing Loss among Indigenous people from remote NT communities

Population investigated	Percentage of the investigated population with significant hearing loss	Investigation/Study source
Adult <u>Indigenous students</u> from a number of remote NT communities	20% with significant hearing loss	Lay, 1990 ¹³
<u>Adult workers</u> in one remote Indigenous community	45% with significant hearing loss	Howard, 2007 ¹¹
<u>General adult population</u> in one Indigenous remote community	33% with significant hearing loss	Rebgetz, 1984 ¹²
NT <u>Indigenous inmates</u> drawn mainly from remote communities.	94% with significant hearing loss	This study. 2011

The greater level of hearing loss among Indigenous inmates suggests that hearing loss has played a role in many Indigenous people becoming inmates. The description by some inmates of hearing loss related communication problems that contributed to interpersonal problems with family, other community members and police also supports this.

The more well known antecedents to involvement in the criminal justice system are alcohol fuelled interpersonal violence¹⁴. Excessive use of alcohol can be a way some people manage frustrations related to hearing loss, or to cope with hearing loss related anxiety, stress and suspicion in social situations. The disinhibiting effects of alcohol can also release pent up frustrations and anger arising from hearing loss related social difficulties¹⁵. For most NT Indigenous inmates the pathway to prison is muffled and hushed, although filled with alcohol and conflict that is more apparent to observers than is their hearing loss. Hearing loss appears to act as a usually unnoticed 'accelerator' to imprisonment through ways that are not as yet clearly understood.

Conversely, hearing loss appears to act as a barrier to engagement in education and employment¹⁶ and success in these areas is associated lower rates of involvement in the criminal justice system¹⁴. This is also supported by the lower prevalence of hearing loss among the others from NT remote communities (adults in the general community, Indigenous tertiary students and trainees), than found among Indigenous inmates.

Addressing the social difficulties related to hearing loss is potentially an important Indigenous crime prevention strategy. To date this approach that has not been considered by the criminal justice authorities. These results suggest that if hearing tests carried out in NT remote communities among teenagers, when ear disease has mostly resolved but has left many with permanent hearing loss, it would accurately identify most of those individuals who were at risk of becoming involved in the criminal justice system. However, social problems and educational disadvantage associated with hearing loss start much earlier. It is likely that focus on addressing the very early communication, interpersonal and education difficulties associated with ear disease and hearing loss⁴ among children could assist in the prevention of many Indigenous adults becoming involved in the criminal justice system.

The recent parliamentary report on the over representation of Indigenous youth in the criminal justice system describes there has been a 60% increase in the involvement of Indigenous youth in the criminal justice system². It is not only the role hearing loss can play in contributing to antisocial behaviour that is a concern. As indicated by some inmates' comments, when Indigenous people with hearing loss come into contact with police, hearing loss is likely to create communication difficulties, which are most often seen as related to defiance, and/or cultural linguistic issues.

"Evidence was presented to the committee about a relationship between hearing impairment and a person's engagement with the criminal justice system. For Indigenous people with a hearing loss, whose first language - if they have one - is not English, this relationship can be disastrous. Engagement between Indigenous people with a hearing loss and police can spiral into confrontation, as police mistake deafness for insolence, or for cultural or language communication difficulties."

**Extracted from Parliament of Australia, Senate, Hear Us⁴*

The recent report on over representation of Indigenous youth in the criminal justice system also highlights this issue².

“Once Indigenous hearing impaired people come into conflict with the criminal justice system, there are a number of issues that then place them at increased risk of continued adverse contact with the system, including:

- difficulties in explaining themselves to the police, with the result that they are more likely to be arrested and charged;
- problems giving instructions to solicitors;
- being credible witnesses in court;
- management difficulties for corrections staff;
- problems coping, both socially and emotionally, in correctional settings.”
(p109)²

There is evidence that hearing loss among inmates is greater in the NT than elsewhere in Australia, although it is still a serious problem elsewhere. There have been two recent studies of hearing loss among Indigenous inmates in other jurisdictions. Quinn (2006) found 6% of 109 Victorian Indigenous inmates had a significant hearing loss (>25dB) and O’Leary (unpublished study, 2010) found 46% of female Indigenous inmates in Western Australia were found to have a hearing loss (>25dB).

Table 6: Hearing loss among Indigenous inmates

Population investigated	Percentage of the investigated population with significant hearing loss	Investigation/Study source
Victorian Indigenous inmates	6%	Quinn and Rance (2006)
Indigenous women inmates in WA	46%	O’leary (2010)
NT <u>Indigenous inmates</u> drawn mainly from remote communities	94%	This study

It is clear a much higher proportion of NT Indigenous inmates have a hearing loss compared with other jurisdictions. This is most likely to be related to the greater level of both hearing loss and disadvantage experienced by people in NT remote communities. A Western Australian study found that the prevalence of hearing loss was greater among inmates from remote areas and less for among those from urban areas (O’Leary personal communication, 2011). The impact of hearing loss is compounded by the presence of other forms of disadvantage. To use the example of housing once again, crowded housing which contributes to childhood ear disease that causes adult hearing loss, also compounds the social effects of adult hearing loss. Overcrowded housing creates higher noise levels, especially when a high proportion of residents have a hearing loss, which increases communication problems and frustrations that prompts interpersonal disputes that can escalate into violence¹⁵. The following anecdote illustrates this.

One woman with hearing loss accused her husband of ‘mumbling’ when she could not understand him (he also had a hearing loss) at a time when there was lots of noise at home because of many family visitors from outlying communities. There was more background noise in the house from many visitors who stayed up to three months every year during the wet season, putting pressure on resources in the household. Frustrated at family visitors not helping around the house and stressed by the additional noise they created around the household, one day she got angry with her husband because she could not hear what he was saying. Angry at his “mumbling” she threw something at him and in retaliation he hit her, which led to him being arrested and jailed. [It is common for

people with conductive hearing loss to speak too softly making it hard for others to understand what they say. This is related to people with conductive hearing loss being able to hear their own voice clearly because sound is conducted through the bones of their skull past their damaged middle ears. This can contribute to difficulties adjusting the volume of their voice to the level that will enable others to hear them effectively, especially when there are changing levels of background noise around them.]

Conversely, when people experience fewer disadvantages and have greater levels of social support the adverse effects of hearing loss on individuals is often mitigated¹⁵. Addressing hearing loss alone is unlikely to be a 'magic bullet' that will resolve the over representation of Indigenous people in the criminal justice system. Hearing loss is enmeshed with other factors such as domestic violence and alcohol abuse in ways that are as yet not fully understood. However, reducing the impact of hearing loss will address one important factor that is currently largely ignored in crime prevention¹. Also understanding and addressing the effects of widespread hearing loss among Indigenous inmates can help make rehabilitation programs more effective.

Implications for NT Corrections of widespread hearing loss among Indigenous inmates

There are important implications for the NT Corrections with the great majority of Indigenous inmates having some level of hearing loss. 76% of inmates with hearing loss indicated that they sometimes found it hard to understand corrections staff.

Some inmates with hearing loss were asked which corrections staff were easiest to communicate with and why. Inmates indicated that a key trait that made certain officers more effective in communication was that they showed 'respect' toward inmates. Indigenous people with hearing loss are often very sensitive about being judged as having limited capacity or motivation on basis of their ability to understand what others say or express themselves well in English¹⁵.

The staff members nominated by inmates as easiest to communicate with were also asked what communication strategies they used with inmates. Communication strategies they described included the following:

- they were accepting of some inmates acting as communication brokers for other inmates;
- they observed inmates non-verbal communication closely and used more body language in their communication. This included learning Indigenous styles of non-verbal communication, such as pointing with the lips;
- they watched for visible indications of understanding or lack of understanding what was said rather than waiting for inmates to indicate they have not understood by asking questions. In Western styles of communication, it is the listener who is generally expected to take responsibility for seeking clarification from the speaker. Direct verbal questioning of the speaker is expected to minimise misunderstanding. In contrast, Indigenous cultures will often expect a speaker to pro-actively assess other people's understanding, feelings and views about what has been said, in part by actively monitoring and responding to non-verbal cues¹⁵.

It would appear there are varying degrees of communication skills among corrections staff working with Indigenous inmates. Some experienced staff have become skilled in their communication with inmates with hearing loss, without necessarily knowing that inmates have a hearing loss. This is similar to what has been found in the education sector. When the successful strategies used by insightful, experienced teachers were used to develop a teacher professional development program this program was successful in improving Indigenous students' educational outcomes and reducing school behaviour problems in participating schools¹⁷.

It is planned that Dr Damien Howard, a psychologist who has specialised in addressing outcomes of Indigenous hearing loss, will be involved in further exploration the communication skills of experienced corrections staff in developing training and orientation training for new corrections staff. It is anticipated this process can 'fast track' the development of effective communication skills that otherwise may take years to develop and then only be developed by some staff.

Use of amplification devices

The Senate Report⁴ recommended the use of hearing loops, which rely on inmates having access to hearing aids. One Indigenous inmate with hearing loss was provided with a hearing aid, however, this expensive device was dropped and trodden on within a few days of being obtained. Another strategy was trialled of using hand held amplification devices with some inmates. These devices have the advantage of being robust, inexpensive and can be used with a variety of inmates in targeted situations where communication may be difficult. Although still being trialled there has been positive feedback about using these devices from both inmates and staff.

One of the key factors in escaping the cycle of criminal activities and imprisonment is through education. Hearing loss can obstruct inmates' opportunity to engage in education. Educators commented on some inmates participation during education sessions improved using an amplification device. One educator described that an inmate changed from being non-responsive and disengaged in education sessions before using the device, to asking questions and making contributions to class discussions after using the amplification device.

For most inmates use of these devices is their first experience of the benefits of amplification and they have been keen to use the device and even obtain one for their personal use. Striking 'rehabilitation' can sometimes come about through access to amplification.

"A dramatic change was noted in one adult Aboriginal male with a long criminal record after he had been identified as having a hearing loss and fitted with a hearing aid. He changed from someone who was socially isolated, uncommunicative and often violent to being a cooperative family and community member."³

The access to amplification enabled by this program can be expected to have a significant rehabilitative impact on many inmates. Inmates will have experience of the benefits of amplification so they will be in an informed position to seek to have a hearing aid fitted when they are eligible for Australian Hearing Services when they leave prison. As inmates they are not eligible to access free hearing aids through Australian Hearing. Involvement in the criminal justice system may provide the first opportunity for most inmates to have their hearing loss identified, to access medical services that may be able to improve hearing and to experience the benefits of amplification.

Hearing test results indicate that the degree of hearing loss is greater among prisoners in more secure sections of the prisons. Often these inmates have a history of volatile responses with consequent injuries to staff and other inmates. The results of using hand held amplification devices with some of these inmates have been very positive, suggesting better management outcomes, lowered risk of injuries and improved inmate wellbeing may be achieved by considering and responding to the often severe levels of hearing loss among these inmates.

Hearing loss as a barrier to rehabilitation

Hearing loss may impede an individual's progress through sentence management plan and participation in rehabilitation programs. Participation in unfamiliar processes involving unfamiliar people can be difficult and stressful for those with hearing loss¹⁵. A common strategy of those with hearing loss is to avoid such situations or simply agree to what is put in place without really understanding what has been said.

Some inmates may cope with listening challenges through avoidance from participating in some corrections rehabilitation processes. Some possible examples of this are as follows.

- a. Inmates generally move from higher to lower security sections of the prison during their term of imprisonment. However, some Indigenous prisoners seek to remain in a higher security environment. The higher security environment has more routines and hearing loss may contribute to some inmates with hearing loss being uncomfortable in less secure, low routine environments where there are more demands placed on inmates' listening skills.
- b. Some Aboriginal inmates choose to do the whole time of their sentence rather than apply for parole. The parole process is communicatively quite challenging and anxiety about the communication demands of participating in this may shape some inmate's decisions to not seek parole. The consequences of this are that people are in prison longer, at greater financial cost and away from their community and family for longer than they need to be. Again this choice may be related to inmate hearing loss and communicatively challenging aspects of the parole process.

It is planned in the future to examine if hearing loss plays a part in obstructing some inmate's participation in rehabilitation processes and how this can be addressed.

9. Recommendations

In general consideration should be given to court room proceedings, interviews and internal disciplinary hearing, video linkup, Prisoner Telephone System and dealings with custodial staff, 76% of all inmates tested self reported they had difficulty hearing officer directions and instructions. Specific recommendations are as follows.

- Training be provided to all correctional staff with regards to the prevalence of hearing loss of indigenous prisoners in the Darwin Correctional Centre and the importance of effective communication with hearing impaired inmates.
- Hearing testing of inmates not tested in this project should be carried out and medical follow up of all inmates found through this testing to have a hearing loss be undertaken.

- The medical induction questions asked of inmates be reviewed and changed to better detect self-reported hearing impairment and tinnitus as well as the implementation of routine hearing tests for all inmates on induction be introduced to identify hearing impairment and make appropriate medical referrals if needed.
- A tinnitus management program be developed for inmates.
- Depending on the outcomes of the trial of amplification devices being conducted within the Darwin Correctional facility that amplification devices be used widely when communicating with inmates in situations where there is a high risk of communication breakdown, or there are demonstrated benefits to their use.
- This report be disseminated throughout the Department of Justice to inform both policy and operational management.
- That more formal research be undertaken to identify and address the impact of widespread hearing loss on Indigenous inmates.

Implementing these recommendations will assist the Corrections Department fulfil its human rights responsibilities to Indigenous inmates with hearing loss that were described in the 2010 Hearing Health Inquiry report⁴.

“Six of the important human rights instruments that Australia has agreed to and are bound by, identify the human rights standards which are relevant to Aboriginal and Torres Strait Islander peoples with hearing impairments and deafness. These human rights instruments are:

- *International Covenant on Economic, Social and Cultural Rights* (1966)
- *International Covenant on Civil and Political Rights* (1966)
- *Convention on the Rights of Persons with Disabilities* (2006)
- *UN Declaration on the Rights of Indigenous Peoples* (2007)
- *Convention on the Rights of the Child* (1989)
- *Convention on the Elimination of all forms of Racial Discrimination* (1965)

At the individual level, Aboriginal and Torres Strait Islander peoples with hearing impairments and deafness may have their individual rights to health, education, employment and participation affected. Individually, they can also face discrimination on the basis of their disability.”

* *Extracted from Inquiry in to Hearing Health in Australia*⁴.

16. Conclusion

There is a significant overrepresentation of Indigenous inmates, 32% of the Northern Territory’s population are estimated to be of Indigenous origin¹⁸. Indigenous inmates make up 82% of the total prison population¹. There was an unprecedented level of hearing loss (>25dB) found among inmates within the Northern Territory Correctional Services among inmates whose hearing was tested in this project. The results also support that hearing impairment is a significant disability in a custodial environment. As also reported by others¹⁹

the results from this project indicate that breakdown in communication can impact detrimentally on daily interactions with prison officers and most likely also with other inmates.

This project has been among the first to examine this important issue and its implications of corrections environments. A common response of corrections agencies over the last 30 years is that hearing loss is a 'health problem' and not their concern⁴. However, despite considerable efforts in medical research there has been no 'medical magic bullet' found and the origins of widespread Indigenous hearing loss is so entangled in general Indigenous disadvantage that a health-only solution is unlikely to emerge.

The scale, impact and implications of hearing loss among NT inmates demonstrated by these findings indicate that it is time for Corrections agencies around Australia to meaningfully address the issues around widespread hearing loss among Indigenous people involved in the criminal justice system. In the Corrections setting this is a matter of both duty of care to inmates and corrections staff, as well to grasp potential opportunities in improved rehabilitation outcomes.

Addressing communication issues around hearing loss is a shared responsibility.

"Hearing loss affects both the individual who has it and those with whom he or she interacts. Speakers, as well as listeners who are hard of hearing, share responsibility for preventing or reducing communication problems related to hearing loss... (listeners) cannot prevent or resolve communication problems by themselves; they often need the co-operation of those with whom they communicate."²⁰

This project has identified that some experienced corrections officers have developed communication skills that help inmates with hearing loss in a corrections environment, as well as that the use of amplification devices can assist to improve communication for hearing impaired inmates. These early results indicate there are potential benefits of investigating and addressing widespread hearing loss among NT Indigenous inmates. These benefits are likely to include better inmate management and improved wellbeing among inmates, as well as enhanced rehabilitation outcomes and lower levels of recidivism.

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History Questionnaire

Name: _____ **IJS:** _____ **Age:** _____

Date: _____ **Location:** _____

1. Do you have trouble hearing / understanding what people say?

No Yes Sometimes A lot

- a) Do you have trouble hearing other prisoners? Yes / No
- b) Do you have trouble hearing in visits? Yes / No
- c) Do you have trouble hearing officers? Yes / No

2. Do you have any ear problems / troubles?

a) Which ear(s)? Right Left Both

b) Do prison medical know about this problem? Yes / No

3. Do you hear and noises / ringing in your ears / head ?

a) Which ear(s)? Right Left Both

b) Sometimes A lot All the time

4. When did you notice you had a hearing injury / problems with your ears ?

Adult Child

Comments:

Appendix A: (2) Audiometer Screen Test

Audiometer Screen Test

Name: _____ **IJIS:** _____ **Age:** _____

Date: _____ **Location:** _____

R = Right L = Left

dB HL	250	500	1000	2000	4000	8000
0						
10						
20						
25						
30						
40						
50						
60						
70						
80						
90						

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ⁱ These finding have not been well reported and it is not clear what level of hearing loss was being described. Other studies have sometimes considered lower levels of hearing loss. For example, Lay¹³ describe 50% and Howard¹¹ 60% of participants in their studies as having hearing loss when slight hearing loss was included. Any level of hearing loss among Indigenous people as a result of early childhood ear disease is likely to have functional listening consequences, if only in some situations. The functional difficulties experienced by people with an early onset hearing loss are likely to be greater than those experienced by someone with a similar level of late onset hearing loss¹¹. The early onset hearing loss resulting from ear disease impacts on the development of auditory processing skills and language development, especially communication with those speaking English as a second or subsequent language.