

Hearing Impairment

The purpose of this document is to collate published research, the findings of government reports and inquiries and academic commentary in relation to hearing impairment, and the effects this may have on a person's behaviour; development; physical, mental and social well-being; and links to contact with the criminal justice system.

Introduction

- 1 Hearing impairment can have detrimental effects on an individual's language and behavioural development, leading to complex outcomes such as low educational attainment, social dislocation and unemployment.¹ Limited engagement in education and employment are factors which have been recognised as contributing to increased engagement with the criminal justice system.²

Terminology

- 2 In this document, 'hearing loss' and 'hearing impairment' are used interchangeably to refer to complete or partial loss of the ability to hear from one or both ears.³

Prevalence and Causes

- 3 In 2017, the Australian Parliament's [House of Representatives Standing Committee on Health, Aged Care and Sport](#) reported that there were estimated to be 3.6 million people in Australia with hearing loss (equating to 14.5 per cent of the total Australian population) and that this is expected to 'more than double' to 7.8 million by 2060.⁴
- 4 The Committee heard that there is 'a higher proportion of Indigenous Australians experiencing hearing problems than non-Indigenous Australians across most age

¹ Senate Community Affairs Reference Committee, Parliament of Australia, [Hear Us – Inquiry into Hearing Health in Australia](#) (Report, May 2010) ('*Hear Us – Inquiry into Hearing Health in Australia*') 41 [4.22].

² Ibid; Senate Select Committee on Regional and Remote Aboriginal Communities, Parliament of Australia, [Aboriginal Australians, Incarceration and the Criminal Justice System](#) (Discussion Paper, 2010) 30–1.

³ World Health Organization, [Deafness and Hearing Loss](#) (Fact Sheet, March 2018).

⁴ House of Representatives Standing Committee on Health, Aged Care and Sport, Parliament of Australia, [Still Waiting to Be Heard... Report on the Inquiry into the Hearing Health and Wellbeing of Australia](#) (Report, September 2017) ('*Still Waiting to Be Heard...*') 15–16.

groups and across remote, rural and metropolitan areas’,⁵ reiterating the findings of the Senate [Inquiry into Hearing Health in Australia](#) in 2010.⁶

- 5 [Australian Bureau of Statistics data from 2013](#) show that nearly 12 per cent of Aboriginal and Torres Strait Islander people had a disease of the ear with at least 7 per cent reporting some form of hearing loss, equating to nearly double the rate of the non-Indigenous population.⁷
- 6 For Indigenous children, hearing loss is widespread and much more common than in the non-Indigenous population.⁸ In 2018, the [Australian Institute of Health and Welfare](#) reported that the rate of long-term hearing problems in Indigenous children was 2.9 times the rate for non-Indigenous children.⁹

Causes of hearing loss in Aboriginal and Torres Strait Islander communities

- 7 Otitis media (middle ear infection) is the key condition contributing to hearing loss among Indigenous children.¹⁰ In 2017, the [House of Representatives Standing Committee on Health, Aged Care and Sport](#) found that otitis media is more prevalent in Aboriginal and Torres Strait Islander children than any other population in the world:¹¹

At any one time 90 per cent of the children in remote Aboriginal and Torres Strait Islander communities will be experiencing an otitis media infection. The Committee received evidence that, in comparison to other children, Aboriginal and Torres Strait Islander children experience otitis media infections that start at an earlier age and are more frequent, severe, and persistent ... Even for those children who do not experience permanent hearing damage, the time spent struggling to hear can negatively impact their development and educational attainment.

Hearing impairment in early childhood can set off a chain of negative impacts that entrench disadvantage in Aboriginal and Torres Strait Islander communities. The unfortunate link between hearing loss and interactions with the criminal justice system can be seen in the

⁵ [Still Waiting to Be Heard...](#) (Report, September 2017) 37–8.

⁶ [Hear Us – Inquiry into Hearing Health in Australia](#) xv.

⁷ Senate Community Affairs Reference Committee, Parliament of Australia, [Indefinite Detention of People with Cognitive and Psychiatric Impairment in Australia](#) (Report, 29 November 2016) 24, citing Australian Bureau of Statistics, [ABS 4727.0.55.001 – Australian Aboriginal and Torres Strait Islander Health Survey: 2012–13](#) (November 2013).

⁸ Australian Government, Department of Health and Ageing, [Aboriginal & Torres Strait Islander Health Performance Framework 2012 Report](#) (Report, 2012) 47; Australian Government, Department of Health, [Aboriginal & Torres Strait Islander Health Performance Framework 2017 Report](#) (Report, 2017) 69.

⁹ Australian Institute of Health and Welfare, [Australia’s Health 2018](#) (Report, 2018) ch 6.4, 3. See also House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs, Parliament of Australia, [Doing Time – Time for Doing: Indigenous Youth in the Criminal Justice System](#) (Report, June 2011) 108 [4.76]: ‘Indigenous children experienced middle-ear disease and associated hearing loss or impairment “at an earlier age, more often and for longer periods” than non-Indigenous children [...] Indigenous youth coming in to detention have high rates of hearing loss’.

¹⁰ Australian Institute of Health and Welfare, [Australia’s Health 2018](#) (Report, 2018) ch 6.4, 1.

¹¹ [Still Waiting to Be Heard...](#) (Report, September 2017) 37–8.

Darwin and Alice Springs correctional facilities where 90 per cent of Aboriginal and Torres Strait Islander inmates have hearing loss.¹²

- 8 The [Australian Medical Association](#) has linked chronic otitis media among Indigenous children to poorer social determinants of health, including poverty, overcrowding and inadequate health services.¹³
- 9 In 2018, the [Australian Institute of Health and Welfare](#) confirmed that ‘ear disease and hearing loss are typically found in children experiencing socioeconomic disadvantage’.¹⁴ Government reports have also recognised that the disproportionately high incidence of hearing loss in Indigenous populations is linked to social and environmental factors including inadequate housing, overcrowding, and poor nutrition.¹⁵
- 10 The Australian Institute of Health and Welfare previously concluded [in a 2014 report](#) that:

Current evidence indicates that prevalence rates among Indigenous children are much higher than among non-Indigenous children and well above the 4% threshold at which a disease is considered to be a major public health problem. Indigenous health must be seen in the context of the disempowerment and separation from land, family and culture. Overcrowding, passive smoking, premature birth, bottle feeding and malnutrition also play a role in the development, recurrence and persistence of ear disease.¹⁶

Prevalence of hearing impairment among prison populations

- 11 As early as 1991, the *Final Report* of the [Royal Commission into Aboriginal Deaths in Custody](#) recognised hearing impairment as one of several factors ‘which inhibited the educational experiences of those who died in custody’.¹⁷
- 12 In 2015, the [Law Council of Australia](#) reported that there is ‘a strong link’ between the prevalence of hearing impairment in remote Indigenous communities and an increased likelihood of contact with the criminal justice system.¹⁸

¹² Ibid 65–6.

¹³ Australian Medical Association, [2017 AMA Report Card on Indigenous Health: A National Strategic Approach to Ending Chronic Otitis Media and Its Life Long Impacts in Indigenous Communities](#) (Report, November 2017) 3. The AMA acknowledged that ‘the unacceptably high prevalence of otitis media [among Indigenous children] has been known for at least 60 years’.

¹⁴ Australian Institute of Health and Welfare, [Australia’s Health 2018](#) (Report, 2018) ch 6.4, 5.

¹⁵ Department of Health (Cth), [Aboriginal & Torres Strait Islander Health Performance Framework 2012 Report](#) (Report, 2017) 69. See also Jane Burns and Neil Thomson, ‘[Review of Ear Health and Hearing among Indigenous Australians](#)’ (2013) 13(4) *Australian Indigenous Health Bulletin* 1, 5.

¹⁶ Australian Institute of Health and Welfare, [Ear Disease in Aboriginal and Torres Strait Islander Children](#) (Report, November 2014) 14.

¹⁷ Royal Commission into Aboriginal Deaths in Custody, *Final Report* (1991) vol 2 [16.5.8]–[16.5.16].

¹⁸ Law Council of Australia, [Addressing Indigenous Imprisonment: National Symposium – Discussion Paper](#) (November 2015) 13 [2.12].

- 13 In 2010, the Australian Parliament's [Senate Community Affairs References Committee](#) heard evidence which suggests that people with a hearing impairment experience higher rates of imprisonment than other Australians:

The causal relationship between hearing loss and criminal activity is that hearing loss can impact on an individual's education, and importantly on their language and behaviour development. These factors then become part of a complex pattern of behaviours in individuals, sometimes including social dislocation and high levels of unemployment, which may contribute to higher levels of engagement with the criminal justice system.¹⁹

- 14 The Committee expressed grave concern

about the potential implications of hearing impairment on Indigenous Australians' engagement with the criminal justice system. Those most vulnerable are Indigenous people from remote areas who do not have English as their first language, or indeed who, due to early onset untreated hearing loss, have little means of communication at all.²⁰

- 15 Research indicates that there are high levels of hearing impairment among Aboriginal and Torres Strait Islander prisoners across all jurisdictions.²¹

- 16 The [Royal Commission into the Protection and Detention of Children in the Northern Territory](#) heard estimates that up to 90 per cent of children in detention in the Northern Territory suffer some sort of hearing loss.²²

Impacts and Links to Contact with the Criminal Justice System

- 17 Lower educational outcomes leading to higher unemployment have been repeatedly identified by Australian governments and commissions of inquiry as the primary factor linking hearing impairment to increased likelihood of contact with the criminal justice system.²³

- 18 In 2017, the [House of Representatives Standing Committee on Health, Aged Care and Sport](#) reported that hearing loss may have wide-ranging impacts on personal relationships, mental health and educational and employment opportunities.²⁴

- 19 In relation to Indigenous populations, the [Senate Community Affairs Reference Committee](#) observed in 2016 that

¹⁹ [Hear Us – Inquiry into Hearing Health in Australia](#) 41 [4.22].

²⁰ Ibid 147 [8.102].

²¹ Law Council of Australia, [The Justice Project Final Report: People Who Experience Family Violence](#) (Report, August 2018) 20, citing [Hear Us – Inquiry into Hearing Health in Australia](#) 147 [8.103]; Troy Vanderpoll and Damian Howard, '[Investigation into Hearing Impairment among Indigenous Prisoners within the Northern Territory Correctional Services](#)' (Report, 2011) 3.

²² Northern Territory Royal Commission into Protection and Detention of Children in the Northern Territory, [Final Report](#) (November 2017) [vol 2A](#), 119.

²³ See, eg, [Hear Us – Inquiry into Hearing Health in Australia](#) 139–40; [Still Waiting to Be Heard...](#) (Report, September 2017) 37–8.

²⁴ [Still Waiting to Be Heard...](#) (Report, September 2017) 35.

[h]earing loss can also compound other forms of disadvantage regularly experienced by Aboriginal and Torres Strait Islander people, including unemployment and poor school performance, thus making entry into the criminal justice system more likely.²⁵

20 The Commonwealth's [Department of Health and Ageing](#) in 2012 found that:

Hearing loss, especially in childhood, can lead to linguistic, social and learning difficulties and behavioural problems in school. Such differences may reduce educational achievements and have life-long consequences for employment, income, social success and contact with the criminal justice system.²⁶

21 In 2014, the [Australian Institute of Health and Welfare](#) found that '[ear] disease, particularly where it leads to hearing loss, is a large contributor to poor educational achievement and higher unemployment and, as a consequence, greater contact with the criminal justice system later in life'.²⁷ The same report described the link between otitis media in early childhood, delayed language development and later educational difficulties:

Otitis media (inflammation or infection of the middle ear) is the major presentation of ear disease in Indigenous children. The disease can occur within weeks of birth, and usually presents as middle ear effusion, or glue ear, often without earache or fever. If undiagnosed, the infection is likely to persist and result in perforated ear drums and significant hearing loss, which in turn can delay language development and adversely affect education.²⁸

22 In 2011, the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs heard that hearing impaired Indigenous children are especially likely to exhibit learning and behavioural problems at school.²⁹ The Committee's final report, [Doing Time – Time for Doing](#), states:

This combination is part of a long term cycle where poor hearing can lead to poor education, with subsequent poorer employment and income prospects, lower living conditions, and poorer health, including unaddressed hearing problems. Hearing loss and its impact on education outcomes exacerbate the disadvantages generally faced by Indigenous people and increase their risk of coming into contact with the criminal justice system.³⁰

23 The Committee recognised that:

The inability of schools to identify and respond to hearing loss amongst Indigenous children significantly increases the likelihood of future incarceration for these children. Children

²⁵ Senate Community Affairs Reference Committee, Parliament of Australia, [Indefinite Detention of People with Cognitive and Psychiatric Impairment in Australia](#) (Report, 2016) 25.

²⁶ Department of Health and Ageing (Cth), [Aboriginal & Torres Strait Islander Health Performance Framework](#) (Report, 2012) 47. These findings were reiterated in the Australian Health Minister's Advisory Council, Department of the Prime Minister and Cabinet (Cth) [Aboriginal & Torres Strait Islander Health Performance Framework 2017 Report](#) (Report 2017) 69.

²⁷ Australian Institute of Health and Welfare, [Ear Disease in Aboriginal and Torres Strait Islander Children](#) (Report, November 2014) 2.

²⁸ Ibid 14.

²⁹ House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs, Parliament of Australia, [Doing Time – Time for Doing: Indigenous Youth in the Criminal Justice System](#) (Report, June 2011) 108 [4.78].

³⁰ Ibid 108–9 [4.77]–[4.79].

with poor educational outcomes are more likely to be unemployed, placing them at higher risk of coming into conflict with the criminal justice system.³¹

Social and behavioural impacts

- 24 A 2013 [Commonwealth-funded review](#) of research into ear health among Indigenous Australians elaborated on the social and behavioural impacts associated with hearing loss caused by otitis media.³² Social impacts identified included:

educational issues, social isolation, truancy, early school-leaving and difficulties gaining employment. Indigenous children with hearing problems can feel isolated and ‘stupid’; they are more likely to have behavioural problems, and they generally drop out of school early. Language development depends on hearing, and mainstream schools rely heavily on spoken instruction. When children experience [chronic suppurative otitis media] in the first two years of life, the consequent hearing loss has the potential to have serious effects on language development and contribute to delays in school progress. [Otitis media]-associated hearing loss can continue into adolescence and have continuing negative effects on learning and development.³³

- 25 Behavioural impacts included negative effects on cognitive development, auditory processing skills, attention, behaviour, speech and language.³⁴ The review also noted:

The negative effects of hearing loss on language acquisition and subsequent reading, writing and learning are likely to be magnified by a range of issues that impact on the educational experiences and outcomes of Indigenous students. An associated problem is that teachers have often had minimal training on the educational effects of conductive hearing loss. Indigenous school-children with bilateral loss can be more disruptive in class than other students and are often either teased or tease others. Behavioural problems in school can contribute to reduced educational achievements and may have life-long consequences for employment, income and social success. This is particularly the case for children with bilateral conductive hearing loss.³⁵

Links to interpersonal conflict and excessive alcohol use

- 26 The 2010 [Hear Us – Inquiry into Hearing Health in Australia](#) report recognised that other factors linking early onset hearing impairment with criminal offending include the stigmatising effects of hearing impairment on self-concept and social skills.³⁶
- 27 In 2017, the [Still Waiting to Be Heard...](#) report acknowledged comments by the Australian Medical Association that

³¹ Ibid 111 [4.91]–[4.92].

³² Jane Burns and Neil Thomson, ‘[Review of Ear Health and Hearing among Indigenous Australians](#)’ (2013) 13(4) *Australian Indigenous Health Bulletin* 1, 10 (citations omitted).

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ [Hear Us – Inquiry into Hearing Health in Australia](#) 139.

high rates of hearing loss among Aboriginal and Torres Strait Islander people contributes to communication difficulties and that ‘this, in turn, exacerbates problems in regard to interactions with law enforcement and criminal justice’.³⁷

- 28 The findings of a [2012 study](#) investigating hearing loss among adult inmates in the Northern Territory suggest that ‘hearing loss has played an important role in many Aboriginal people becoming incarcerated’ as a result of interpersonal conflict, alcohol use and violent altercations arising from misunderstandings or interactions with police:

It is also probable that hearing loss interacts synergistically with other factors that contribute to Aboriginal people’s involvement in the criminal justice system. For example, alcohol fuelled interpersonal violence is an all too common antecedent to Aboriginal people’s involvement in the criminal justice system. 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 excessive suspicion in social situations. The disinhibiting effects of alcohol can also release pent up frustrations and anger arising from hearing loss related social difficulties. For most NT Aboriginal inmates it would seem the pathway to prison is muffled and hushed, although filled with alcohol and conflict that is more apparent to observers than is hearing loss.³⁸

Custodial Hardship

- 29 The Senate Community Affairs References Committee acknowledged in the [Hear Us – Inquiry into Hearing Health in Australia](#) report that ‘prison life is particularly difficult for hearing impaired Indigenous Australians serving a custodial sentence’.³⁹

In a world managed by bells and verbal instructions, daily life for the hearing impaired is an extra challenge, especially if their impairment is undiagnosed. The committee hopes that improved awareness of the level of hearing impairment among Indigenous people serving custodial sentences will drive improvements to the way correctional facilities are designed and run.⁴⁰

- 30 Similarly, the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs report [Doing Time – Time for Doing](#) acknowledged that Indigenous hearing impaired people coming into contact with the criminal justice system are often placed at increased risk of continued adverse contact with the

³⁷ [Still Waiting to Be Heard...](#) (Report, September 2017) 46.

³⁸ Troy Vanderpoll and Damien Howard, ‘[Massive Prevalence of Hearing Loss among Aboriginal Inmates in the Northern Territory](#)’ (2012) 7(28) *Indigenous Law Bulletin* 1, 5 (citations omitted).

³⁹ [Hear Us – Inquiry into Hearing Health in Australia](#) 148. The Committee made a number of recommendations aimed at addressing hardship in custody for hearing impaired prisoners on a systemic level, including recommendations for a national plan to implement hearing assessments for all Australians serving a custodial sentence whether in adult or juvenile detention, and for the improvement of facilities and practices by correctional facilities in which greater than 10% of the population is Indigenous to ensure that ‘the needs of hearing impaired prisoners are met’: at 149–51.

⁴⁰ *Ibid.*

system, including ‘problems coping, both socially and emotionally, in correctional settings.’⁴¹

- 31 A 2011 [investigation into hearing impairment among Indigenous prisoners within the Northern Territory Correctional Services](#) found that 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 loss ... 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.⁴²

Interpersonal conflict, physical danger and isolation

- 32 The same [investigation into hearing impairment among Indigenous prisoners within the Northern Territory Correctional Services](#) found that hearing impairment ‘is often a significant disability in a custodial environment’ which ‘can impact detrimentally on daily interactions with prison officers and most likely also with other inmates’.⁴³

- 33 A 2005 US study of the risks faced by deaf people in the American criminal justice system found:

The two most serious problems deaf inmates face are physical danger and isolation. Deaf prisoners are vulnerable to rape and other forms of assault because they cannot hear what transpires around them and identify potentially dangerous interactions (Ezekiel, 1994). Language barriers make it more difficult for them to make friends and form alliances for mutual protection.

Isolation occurs when the deaf inmate lacks the communication skills to interact adequately with hearing inmates. This is the case with 90% of deaf prison inmates (Miller, 2001). Most deaf inmates are alone in prison, without any other deaf inmates or signers around. This serves to further alienate them from treatment and socialization, thus having the opposite

⁴¹ [Doing Time – Time for Doing](#) 109.

⁴² Ibid 15.

⁴³ Troy Vanderpoll and Damian Howard, ‘[Investigation into Hearing Impairment among Indigenous Prisoners within the Northern Territory Correctional Services](#)’ (Report, 2011) 16–17.

effect of rehabilitation. They may become involved in altercations over the accessibility of television, as hearing prisoners usually object to turning on captioning.⁴⁴

Treatment and Healing*

- 34 Addressing the social difficulties and educational disadvantage related to hearing loss is recognised as a potentially important crime prevention strategy, particularly in Aboriginal communities.⁴⁵
- 35 Educational outcomes for Aboriginal adults with hearing loss may be improved through the greater use of one-to-one tutoring, peer support, selective use of amplification devices and relevant training for educators.⁴⁶
- 36 In the context of hearing impaired inmates from remote Aboriginal communities, the adaptation of rehabilitation programs to cater for participants with hearing loss has been recommended to improve rehabilitation outcomes.⁴⁷
- 37 Access to amplification ‘can be expected to have a significant rehabilitative impact on many inmates’.⁴⁸

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.”⁴⁹

⁴⁴ McCay Vernon and Katrina Miller, ‘Obstacles Faced by Deaf People in the Criminal Justice System’ (2005) 105(3) *Annals of the Deaf* 283, 289.

* *Note*: The research cited in relation to treatment and healing does not attempt to prescribe or recommend what is required for any individual. This will of course be determined by factors such as the individual’s personal experience or condition, the advice of any relevant experts, health providers or other support persons and the availability of treatment and opportunities to recover and heal.

⁴⁵ See, eg, *Doing Time – Time for Doing* 108–9.

⁴⁶ Troy Vanderpoll and Damien Howard, ‘[Massive Prevalence of Hearing Loss among Aboriginal Inmates in the Northern Territory](#)’ (2012) 7(28) *Indigenous Law Bulletin* 1, 6.

⁴⁷ *Ibid*.

⁴⁸ Troy Vanderpoll and Damian Howard, ‘[Investigation into Hearing Impairment among Indigenous Prisoners within the Northern Territory Correctional Services](#)’ (Report, 2011) 14.

⁴⁹ *Ibid* 15.