



Currently **one in six** Australians suffer from some form of hearing loss. This may increase to one in four by 2050. *Access Economics 2006*

## Experimental vaccine to protect against CMV

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## Why captions are everywhere

People with hearing loss have a new ally in their efforts to navigate the world: Captions that aren't limited to their television screens and streaming services.

## Sound of Religion

Religion and sound are tied together in evocative ways. Church bells. Calls to prayer. Tantric chanting. What does religion sound like, and how can we learn new truths about the diversity of religion when we listen?

## Supporting scientists

Researchers who are deaf or hard of hearing have much talent and knowledge to offer to the scientific community, but oral communication will be a challenge to their full inclusion. The scientific community can help facilitate better communication with researchers who are deaf or hard of hearing.

Deafness Forum Australia is a Voice for All. It is the peak body representing the views and interests of the 4 million Australians who live with hearing loss, have ear or balance disorders, people who also communicate using Australian Sign Language, and their families and supporters. Our mission is to make hearing health & wellbeing a national priority in Australia.

# Queensland researchers develop experimental vaccine against cytomegalovirus

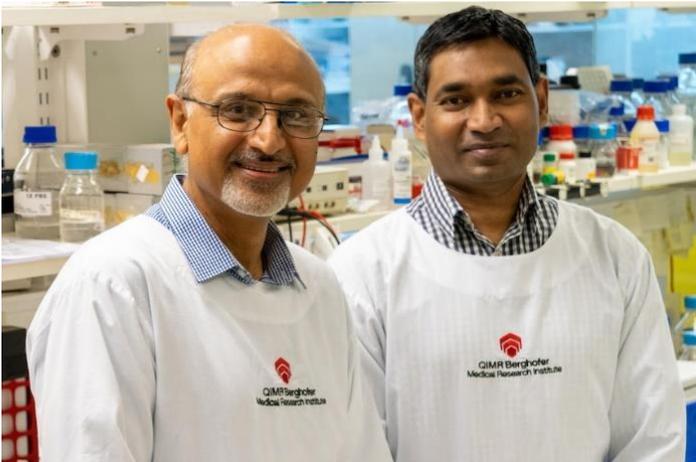
By Janelle Miles for [ABC News](#)



Azaria was born with severe hearing loss due to her mother contracting CMV. (Supplied: QIMR Berghofer Medical Research Institute)

Queensland researchers have developed an experimental vaccine to protect against cytomegalovirus (CMV), which can result in babies developing hearing loss, cerebral palsy, developmental delay and other severe disabilities while in the womb.

Scientist Rajiv Khanna at the QIMR Berghofer Medical Research Institute has been working on the vaccine for 15 years. He hopes to conduct human trials by 2024 and is in discussions with potential industry partners to progress the vaccine. He said the vaccine worked by mounting a two-pronged immune-system attack against the virus, deploying both antibodies and killer T cells.



Rajiv Khanna (left) says the vaccine has produced a strong immune response during mouse trials. (Supplied: QIMR Berghofer)

"A major reason for vaccines not working for CMV is that most of the previous vaccine formulations have tried to control the virus through antibodies alone," he said.

"We've learned that antibodies alone are not sufficient. These viruses very cleverly hide inside the cell. And to kill that virus, which is inside the cell, you need killer T cells. We have now brought the two armies of the immune system into one formulation."

Adolescents would be the initial target population if the vaccine was successful, but it could also benefit people across their life span.

"If you don't have a pre-existing immunity to this virus and you get exposed during pregnancy you have a one in three chance of transmitting that virus to the baby through the placenta," Professor Khanna said. "But if you're actually immune, then that chance goes down to one in 100, even lower."

CMV is a herpes virus carried by an estimated 50 per cent of the population. Most people will never develop symptoms and a small proportion will experience a glandular fever-like illness. But if women acquire the virus during pregnancy, it can be potentially dangerous to their unborn child.

"It's a pretty nasty disease once it gets into unborn babies," Professor Khanna said.

Brisbane mother Miff Ward had not heard of CMV until she learned she was infected while pregnant with daughter Azaria, who was born with permanent hearing loss.



Brisbane mum Miff Ward says she is excited a possible vaccine is coming.

"It was a really difficult and emotional time for us," Ms Ward said. "It's surprising that there is so little awareness of such a common virus that can cause so much damage to an unborn baby. I'm really excited to learn that a vaccine may be coming. We were lucky that the effects of CMV were not more severe considering what can happen."

CMV is most commonly spread through saliva and other bodily fluids. Pregnant women are urged to practise strict hygiene, particularly when changing nappies, wiping a child's nose or when in contact with urine. They should not share a toothbrush with a child and avoid contact with saliva when kissing children.

Professor Khanna said even if the CMV vaccine was successful, it would realistically undergo years of human trials before it became available to the public.

He said Queensland had the capability to manufacture the vaccine.

# Sound of Religion

Religion and sound are tied together in evocative ways. Church bells. Calls to prayer. Tantric chanting. What does religion sound like, and how can we learn new truths about the diversity of religion when we listen?

Amy DeRogatis, Professor of Religion and American Culture and Chair of the Department of Religious Studies at Michigan State University in the U.S., and Isaac Weiner, Associate Professor at Ohio State University, have been probing these questions as co-founders of the [American Religious Sounds Project](#) (ARSP). Through hundreds of field recordings that capture the sounds of religion at places such as homes, churches, temples, public protests, and community events, the ARSP constructs a tangible sonic record that maps and contextualises religion in profound and innovative ways.

Now, after eight years of research and hundreds of audio recordings, the ARSP is culminating in a reflective exhibition titled Religious Soundscapes featuring audio essays and inviting visitors to experience religion as an audibly complex social, spatial, political, and embodied phenomenon.



Sounds of ritualistic Buddhist chanting are part of the hundreds of field recordings in the exhibition.

“Religion sounds different depending on the space where it’s practiced,” Weiner said. “So, we organised the exhibit not by discrete, bounded religious traditions, but by commonalities across traditions based on the different spaces in which religion is practiced.”

“When you pay attention to sound, it allows one to think about religious practices in ways that get beyond texts and institutions,” DeRogatis said. “Tuning into this different sensation allows us to explore questions as big and simple as ‘What is religion and religious practice?’ It’s a question that really engages the public because people like to think about the sounds of their own traditions, and they like to talk about how hearing sounds that are not from their religious traditions affects them.”

“I look back and just express tremendous pride in all we’ve accomplished,” Weiner said. “The actual products we’ve created, as well as the networks of collaboration among faculty, students, and community we fostered, this is a moment to celebrate that work.”

# England's health services urged to use "game-changing" transparent face masks

The National Health Services of England and Wales (NHS) are being urged to remove "serious communication barrier" and invest in transparent face masks.

The National Deaf Children's Society warns that deaf patients could face "serious communication barriers" in healthcare, many of which could be overcome by introducing the masks.

Face masks remain widespread across the NHS after new guidance, issued on 1 June, said they were still required in a wide variety of settings, including emergency departments, cancer wards and critical care units.

The National Deaf Children's Society says this is a serious issue, because whenever opaque face masks are used, lip reading becomes impossible, and facial expressions are very difficult to read.

This leaves deaf people struggling to communicate in medical appointments and at risk of serious consequences, such as being unable to understand vital information about their health.

Deaf young person Polly, 17, has spoken of her recent experience of transparent face masks at a London children's hospital:

"The use of clear face masks by all hospital staff when communicating with me was invaluable during a recent post-surgery recovery period. I was so tired after my operation that I didn't have the energy to be struggling with the communication barrier caused by standard face masks. They didn't fog up and seemed easy to wear.

"I found my inpatient experience to be the easiest hospital experience from a deaf perspective that I've had in a long time, which is all down to these clear face masks. This is because they enabled me to lipread and communicate with everyone easily, from surgeons and anaesthetists to physiotherapists and psychologists."

## What's stopping you? Learn lip reading online



# New casting database for deaf performers



A new casting database with deaf and disabled performers is being launched for casting directors, agents and producers.

The new portal from [Casting Guild of Australia](#) and Showcast will host self-taped video footage of individual performers for industry professionals to use to cast their projects. Performers wanting to submit their details can log-in to Showcast's [portal](#).

## Why captions are everywhere and how they got there

By TALI ARBEL for [Tech Xplore](#)

People with hearing loss have a new ally in their efforts to navigate the world: Captions that aren't limited to their television screens and streaming services.

The COVID pandemic disrupted daily life for people everywhere, but many of those with hearing loss took the resulting isolation especially hard. "When everyone wears a mask they are completely unintelligible to me," said Pat Olken of Sharon, Massachusetts, whose hearing aids were insufficient. (A new cochlear implant has helped her a lot.)

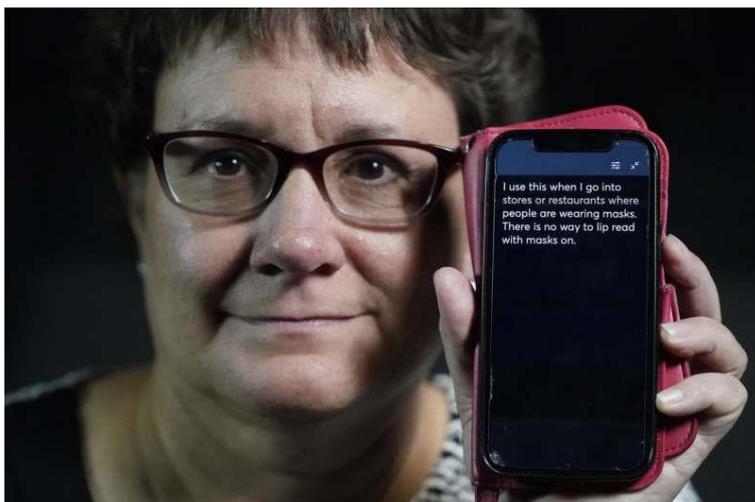
So when her grandson's bar mitzvah was streamed on Zoom early in the pandemic, well before the service offered captions, Olken turned to Otter, an app created to transcribe business meetings. Reading along with the ceremony's speakers made the app "a tremendous resource," she said.

Captions have long been available on modern television sets and are cropping up more frequently in videoconferencing apps like Zoom, streaming services like Netflix, social media video on TikTok and YouTube, movie theatres and live arts venues.

In recent years, smartphone apps like Otter; Google's Live Transcribe; Ava; InnoCaption, for phone calls; and GalaPro, for live theatre performances, have emerged. Some are aimed at people with hearing loss and use human reviewers to make sure captions are accurate.

Others, like Otter and Live Transcribe, instead rely on what's called automatic speech recognition, which uses artificial intelligence to learn and capture speech. ASR has issues with accuracy and lags in transcribing the spoken word; built-in biases can also make transcriptions less accurate for the voices of women, people of colour and deaf people. Jargon and slang can also be a stumbling block. But users and experts say that ASR has improved a lot.

Transcription lag can present other problems—among them, a worry that conversation partners might grow impatient with delays. "Sometimes you say, 'I'm sorry, I just need to look at my captions in order to hear,'" said Richard Einhorn, a musician and composer in New York. "That doesn't mean I'm not aware sometimes it's a hassle for other people."



Chelle Wyatt describes how you can't lip read if a person is wearing a mask. The COVID pandemic disrupted daily life for people everywhere, but many of those with hearing loss took the resulting isolation especially hard. Credit: AP Photo/Rick Bowmer.

Other issues crop up. When Chelle Wyatt of Salt Lake City went to her doctor's office, the Wi-Fi there wasn't strong enough for the transcription app to work. "It was gestures and writing things down and making sure I got a written report afterward so I knew what was said," she said.

Movie theatres provide devices that amplify sound, as well as glasses and individual screens that show captions to go with the movie. But those aren't always comfortable and sometimes aren't well-maintained or just don't work. Many people with hearing loss want more films to run captions on the big screen, just like you'd have in the comfort of your own home.

A new law that took effect in New York City requires movie theatres to offer captions on the screen for up to four showtimes per movie each week, including during the most popular hours to go to the movies—Friday nights and weekends. Hawaii passed a state law in 2015 that required two screenings a week of each movie with captions on the screen. AMC, the big movie chain, also says it screens some movies with captions at about a third of its U.S. theatres.

Captions are more available now for live performances, too. Several Broadway theatres promote a smartphone app that captions live performances; there are also handheld individual devices that show captions. Theatres also have a few performances with "open captions" everyone can see.

"We need captioning everywhere and we need people to be more sensitive," Olken said. "The more I advocate the more other people benefit."

# 16,000 people use Auslan: Census 2021

For the first time, the National Census in 2021 included Auslan (Australian Sign Language) as a prompt when asking what language was used at home.

The new Australian Census [report](#) shows slightly more than 16,000 people use Auslan at home. The numbers include people for whom Auslan is their primary or only language, and also people who use Auslan at home to communicate with native Auslan users, such as children of Deaf adults.

A majority of Auslan users were living in Queensland, Victoria and New South Wales with around 4,000 in each state; under 2,000 living in South Australia and Western Australia; and between 100 and 400 people were living in each of the Northern Territory, ACT and Tasmania.

Australian Bureau of Statistics

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Religious affiliation (RELFP)

Year of arrival in Australia (YARP)

Latest release

## Language used at home

Census of Population and Housing: Census dictionary

Definition

This variable identifies whether a person uses a language other than English at home and if so, records the main non-English language which is used. The purpose of this variable is to identify the main languages other than English which are used in households across Australia.

Data download

TABLE 5. LANGUAGE USED AT HOME BY STATE AND TERRITORY

	NSW	Victoria	QLD	SA	WA	Tas	NT	ACT	Total(b)
<b>Auslan</b>	3,986	4,355	4,109	1,288	1,767	364	123	244	16,242

"This change in the Census question...plays an important role in providing a clear message for Auslan users to record this data in the Census" says Brent Phillips, Deaf Connect Chief Impact Officer. Deaf Australia described it as a "major win for the Deaf Community."

## Free tinnitus resources

- [Tinnitus First Aid Kit](#) is a website full of useful advice and information for people newly diagnosed with tinnitus.
- [Tinnitus Thermometer](#) is a PDF and online questionnaire that clinicians can use to assess how your clients are experiencing tinnitus at a given moment and over time.
- [Tinnitus Communication Guide](#) suggests some useful questions and communication tips to help professionals understand their clients, express empathy, and give hope.
- An online Tinnitus Management course for audiologists and audiometrists includes guidance on using its [tinnitus tools](#).
- [Watch videos](#) about tinnitus.

# Winner of national not-for-profits scholarship

The Australian Institute of Company Directors (AICD), in partnership with the Australian Scholarships Foundation has awarded 200 scholarships to enable directors, executives and emerging directors of not-for-profit organisations to attend the [AICD's Governance Foundations for Not-for-Profit Directors program](#).

The diverse list of 200 recipients from every state in Australia includes Deafness Forum's Vice-Chair and director Michelle Courts, who lives in Adelaide.

The scholarship will support her to build skills and provide quality governance to Deafness Forum.



## First Voice

Members of the [First Voice](#) group met in person for the first time since 2019.

The First Voice board reviewed strategic priorities and toured the outstanding new facilities of Can:Do South in Adelaide.

First Voice members are organisations that provide listening and spoken language early intervention services for children who are deaf or hearing-impaired.

The new chair is Jim Hungerford and Heidi Limareff is the new deputy.

Outgoing First Voice chair Mark Fitzpatrick was acknowledged for his contributions.



## Deafness Forum is an Australian Registered Charity



Your contributions keep us working on your behalf.

All donations of \$2 or more are tax deductible.

To donate, [please take this link](#)



# Walk, Talk and Listen over Zoom

This is a study by Macquarie University (Sydney) that aims to evaluate the effectiveness of the 'Walk, Talk and Listen over Zoom' program to reduce feelings of loneliness among older adults with hearing loss.

There are two optional stages of the study:

Part 1 – One on one interview to understand your thoughts on the 'Walk, Talk and Listen over Zoom' program.

Part 2 – (a) Participation in a 10-week trial of the 'Walk, Talk and Listen over Zoom' program.  
(b) Pre- and Post-program questionnaires about your hearing experience, physical activity and wellbeing.

(c) Post-program group discussion to provide feedback about the program

## How long will it take (approximately)?

Part 1 – 15 to 20 minutes.

Part 2 – (a) 1 hour per week for 10 weeks with the option of morning or afternoon sessions.

(b) 30 to 40 minutes per questionnaire pack.

(c) 30-minute group discussion.

<p>Eligibility criteria Part 1:</p> <ul style="list-style-type: none"><li>• people aged 50 years and over and,</li><li>• have a hearing loss, and</li><li>• speak fluent English</li></ul>	<p>Eligibility criteria Part 2:</p> <ul style="list-style-type: none"><li>• people aged 50 years and over and,</li><li>• have a hearing loss, and</li><li>• speak fluent English, and</li><li>• have access to a device with a front-facing camera, and</li><li>• have clearance to participate in exercise from their GP or pass the PARQ+ questionnaire</li></ul>
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## Who is running this study?

This study is being conducted by Dr Diana Tang.

For more information or to participate in the study, please contact us at:  
[mimansa.thakore@mq.edu.au](mailto:mimansa.thakore@mq.edu.au)

# Supporting deaf or hard of hearing scientists

Increasing awareness and better technology bodes for a more positive future for scientists who are deaf or hard of hearing, explains John Dennehy.

I am a microbiologist and professor at Queens College of the City University of New York, who happens to be deaf, and the path to my present position was rife with challenges. I am sharing my experiences with the scientific community in the hope that science can be made more accessible to individuals who are deaf or hard of hearing.

Although I was born with profound bilateral hearing loss, I was fitted with hearing aids at the age of three and I now have a cochlear implant, thus I can participate in the 'oral world' without the use of sign language. Nevertheless, communicating with peers, students and colleagues has always been a challenge. In hearing exams under ideal conditions, my word recognition score is approximately 60%, but this falls to zero in noisy situations. 'Hearing' for me consists of guessing the missing words in other's speech. Because I depend on lip reading, following group conversations is difficult.



During the COVID-19 pandemic, several restrictions and changes exacerbated these challenges. Given the imposed mask mandates, I bought clear masks for my lab, but they are not as effective as N95 masks, so I was reluctant to ask my lab members to wear them. Masks remain a significant challenge.

A second major challenge was the transition from in-person to remote meetings and classes. Fortunately, I was able to conduct my lectures using software that offers live captioning. While this software struggled with scientific terms such as *Pseudomonas* or  $\beta$ -galactosidase, it was able to capture the substance of my students' questions and comments, and any uncertainties could be resolved with the chat function. Deaf people are generally quite adept at filling in missing information in oral communications.

More problematic were meetings with colleagues, conferences and colloquia, which were held on platforms that did not offer live captioning. I struggled to follow rapid conversations from disembodied, often masked, heads, or worse, blank screens. In a virtual meeting with a diversity, equity and inclusion group on campus, I sat flustered and embarrassed for 20 minutes while there was a struggle to figure out how to turn on live captioning. The purpose of the meeting was to communicate the challenges that deaf people face in the changing campus environment, so, in this respect, the meeting was successful. Most platforms have made captioning available, so virtual meetings are now easier to follow than in-person meetings.

Despite this progress, there is still much more that can be done. It is important to recognise that researchers who are deaf or hard of hearing have differing abilities to advocate for themselves. For most of my life, I was reluctant to ask for accommodations, for fear of being a nuisance or to imply that I was incapable. I feared that admitting a handicap would make me less competitive for jobs or funding. Additionally, many people, especially those that suffer hearing loss as they age, will deny they have a hearing loss, even if they can benefit from accommodations. It is helpful to offer accommodations proactively, assuming that those who need it may not be willing, or able, to request it. One of the video platforms has a useful feature that allows one to request live transcription anonymously, however, the host must be using the most up-to-date version of the software.

There are several strategies that non-deaf people can use to facilitate communications with researchers who are deaf or hard of hearing. Obviously, mask mandates must be followed, but where possible, it is helpful to maintain eye contact to ensure that your face and lips can be seen when communicating. When speaking to an audience in person, be sure to face the audience and not the screen. Conference organizers could reserve space at the front, so that researchers who are deaf or hard of hearing can sit close to the speakers without having to request specific seats. When using remote meeting platforms, turn on your camera, so that attendees who are deaf or hard of hearing can read your lips and see facial cues that are useful in interpreting speech.

Often, understanding a conversation may hinge on just a few missed words. If you are having difficulty communicating, try rephrasing your communication instead of repeating the misunderstood phrase more loudly. Rephrasing may offer more cues for interpreting what is being said. In my experience, the volume of the communication is often not the issue. Instead, the clarity and the ability to discriminate from background noise can be the main roadblocks to understanding. The latter is particularly problematic at social events, such as poster sessions, or informal gatherings at the local pub or restaurant. Consider scheduling these events in quieter spaces to be more inclusive of those who are deaf or hard of hearing.

Researchers who are deaf or hard of hearing have much talent and knowledge to offer to the scientific community, but oral communication will be a challenge to their full inclusion. With greater awareness of these issues, the scientific community can help facilitate better communication with researchers who are deaf or hard of hearing. Assistance must be mindfully and proactively provided to scientists with disabilities in different academic contexts to ensure full inclusion, as some may be reluctant to request it.

From [Nature Briefing](#)

# Partnership to overcome barriers to better hearing

The National Acoustic Laboratories (NAL), the research division of Hearing Australia announced a new collaboration with WS Audiology to conduct research to improve the hearing health of Australians living with hearing loss.

Dr Brent Edwards, Director of NAL, said that people are faced with more choices than ever when seeking to improve their hearing health.

"NAL has been conducting research into direct-to-consumer and self-fitting hearing aids, which is something that is already having an impact internationally.

"Doing research with WS Audiology will help us to expand our work in this area and continue to investigate associated outcomes of over-the-counter hearing devices compared to traditional hearing aids that are fitted by an audiologist."

*Advertisement*

**We are seeking parents whose child is**

- deaf or hard of hearing, and
- has a bilateral moderate to profound hearing loss or profound unilateral hearing loss, and
- uses spoken English as their primary mode of communication, and
- is aged 18-23 years, and
- is attending university in Australia.



## Participant Recruitment

Social capital is the benefits derived from networks of relationships between people and groups of people. There are many documented benefits of social capital. Social capital has a potential buffering effect against negative outcomes for young people who are deaf or hard of hearing.

This research is being conducted in three stages through interviews. Stage one of the research aimed to investigate how high-achieving young adults who are deaf develop social capital. Stage two of the research aimed to create intervention strategies that may assist practitioners in targeting the development of social capital with adolescents who are deaf. Stages one and two are complete. Stage three of the research will interview parents of young deaf adults attending university. This participant recruitment is for stage three.

Participants will receive a \$75 Mastercard gift card after the interview in appreciation of the time required in assisting with this research.

If you are interested, please scan this QR code that will take you to a SurveyMonkey link for the participant information statement and consent form.



This project has been approved by the University of Newcastle Human Research Ethics Committee, HREC Approval No. H-2021-0024

# Ear Science affiliation to boost research



A new affiliation agreement between Ear Science Institute Australia and The University of Western Australia will help drive innovation in ear and hearing research.

The agreement includes joint research projects closely tied to changing clinical practice, conducted with the Centre for Ear Sciences at the UWA Medical School. Projects include further development of ClearDrum, investigating the role of cochlear fibrosis in cochlear implantation, and further exploring the relationship between hearing loss, cognitive decline and dementia.

Ear Science also has a long-standing involvement in UWA's two internationally recognised longitudinal population health studies: the Busselton Health Study and the Raine Study.

From [Mirage News](#)



"I wish I knew more about Aboriginal culture. I feel so ignorant and uninformed."

Your education has likely left you in the dark about Aboriginal culture. And now you hesitate to join discussions or continue to feel guilty about not knowing what happened in the past.



Get key foundational knowledge about Aboriginal culture in a fun & engaging way at [Creative Spirits](#)

# 10<sup>th</sup> national deafness sector summit



The 2022 National Deafness Sector Summit will be held in Sydney on Tuesday 11 October.

The conference theme will be **A Noisy World - Hearing Loss Prevention**

Noisy classrooms - Workplace noise - Noise in recreation.

We are very keen to hear everyone's views on the topics to be included in each of three sessions and who should present them. You can nominate yourself or your own organisation. Contact me at [steve.williamson@deafnessforum.org.au](mailto:steve.williamson@deafnessforum.org.au)

We are pleased to announce that **Hearing Australia** will present the Summit Cocktail Function to conclude the 2022 National Deafness Sector Summit.



"For 75 years, Hearing Australia has been helping Australians experience the joy of sound.

The organisation cares for thousands of children, adults, Aboriginal and Torres Strait Islander peoples, pensioners and veterans every week in our cities, regional centres and the most remote parts of Australia, to help them stay connected with their families and communities.

Hearing Australia works with its clients and hearing care partners to deliver on its promise to offer world leading hearing solutions anyone can access for the wellbeing of all Australians.

Working side by side with organisations like the Deafness Forum, Hearing Australia is committed to improving the hearing health of our nation, and is proud to support the Deafness Forum Summit by presenting the Summit cocktail function."

## Know someone who deserves their own copy of One in Six?

Drop us a line to [hello@deafnessforum.org.au](mailto:hello@deafnessforum.org.au)

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