



## THE LIBBY HARRICKS MEMORIAL ORATION

Sponsored by the Deafness Forum of Australia

It is enormously exciting now to welcome to the stage Jenny Rosen, who's chair of the Libby Harricks Memorial Oration Committee, and we're going to hear all about the Deafness Forum, this particular oration, and our orator, Rick Osborn. Please welcome Jenny Rosen.

JENNY ROSEN: Hello everybody. Can everybody hear me? Hands up if you can't hear me? Okay.

That act of course is an extremely hard act to follow but we'll do what we can. I'm Jenny Rosen. I'm the chairman of the Libby Harricks Memorial Oration Committee of Deafness Forum, which in turn is a national organisation representing all aspects of hearing impairment. Most of us, I think, think of disabled access as ramps for wheelchairs. However if you think about it, these ramps don't do very much for people who don't hear well.

I'd like to draw your attention today to some special access provisions that were especially here for you to see how they work. There is a loop installed in this theatre which permits people to switch on their hearing aid to listen directly to the speaker. I hope that's working. Yes? Somebody who uses it says that's working for us. I'm sure she would have told us if it wasn't. They are in fact installed in many places. They are not always turned on, and so you need to be proactive and say, "Excuse me, have you got it turned on?"

There are Auslan interpreters to translate the proceedings today for those who are using sign language. Both of these access provisions require either technology or interpreters on site. There's also a third service—Go-CART, which, as you can see, provides written captions. This very useful technology is actually travelling online to Canberra and back via an internet connection. So, in other words, it is available to you in any rural or remote area where you have suitable internet access.

If you listen to what our speaker has to say, can you also please keep in mind the benefits that these particular communications access provisions may have in your own community.

We're honouring today Libby Harricks, who developed profound hearing impairment as a young wife and mother, and despite this she proceeded to become a passionate advocate for equal access for all hearing impaired people. Amongst her activities—she was the first president of Deafness Forum, and in this role she travelled widely across Australia lobbying constantly on behalf of hearing impaired people and raising awareness of their needs.

In 1990, in recognition of this work, she was made a Member of the Order of Australia. After her death in 1998 this oration series was established in her honour, with the aim of continuing her commitment to achieving appropriate recognition, awareness and access for hearing impaired people.

The series speaks for itself in carrying forward this passion and the aims of Deafness Forum, and we've been very fortunate with a series of outstanding orators, both the quality of their speeches and being able to provide them across Australia. As well as that, the work continues in a printed monograph series. So we need to thank the Libby Harricks Oration Committee and the Deafness Forum secretariat for making this possible, and also our sponsors for this particular oration, which are Australian Communication Exchange, Australian Hearing and Cochlear Limited, who have generously supported the oration and the preparation for the monograph.

So the oration series has been presented annually since 1999 and printed copies of today's oration are available for you on the brochure stand. Alternatively, this and other orations in the series will continue to be available from Deafness Forum. This year we are delighted to have the opportunity to reach a new audience with a rural focus at this 9th Rural Health Conference. I would also like to thank the conference organisers for their help in enabling this to happen.

So it is now my privilege and great pleasure to present to you the Orator for 2007, Mr Richard Osborn, whose topic, *Hearing and Communication—a primary concern in aged care*, impacts on us all, regardless of where we may live.

Rick is a well known audiologist in private practice in Melbourne. Over the years he's contributed widely from positions at HEAR Service, the Lincoln Institute, Royal Children's Hospital, and innovatively as an audiologist in various roles at Vision Australia. Rick has managed a number of national and international projects in education and consulting and has written and presented many papers on the impact of late onset sensory loss.

Rick has actually been a world leader in drawing attention to the interaction of such multiple disabilities and how easily they can be and frequently are misdiagnosed as confusion or dementia. At age 65, 35 per cent of Australians, rural or otherwise, can be expected to have a significant hearing problem. For those older folk in residential care, the prevalence rises to 85 to 95 per cent. For many of these people, hearing loss will be compounded by fading vision. Clearly unrecognised and unmanaged hearing and/or vision loss in this group can disproportionately compromise all of their other management.

During Rick's oration I am sure you will all gain considerable insight into just how this can happen. Would you please welcome Rick Osborn.

## Hearing and communication—a primary concern in aged care

[Rick Osborn](#), Audiologist

RICK OSBORN: Thank you, Jenny. Thank you for attending. This is indeed a great honour to present this Libby Harricks Memorial Oration, who, as you've heard, was a great advocate for people with hearing loss and who are deaf.

Hearing impairment can have a serious impact on people's lives if left unattended. It affects their communication with others and conversation can become strained and unsatisfying. It can impact on the quality of relationships that they have and trigger social isolation as the person withdraws from shared activities. Hearing impairment also compounds with other changes, such as vision or cognitive changes, which forces a change in the person's overall independence, ability to carry activities of daily living, and certainly reduces their participation in valued life roles.

Typically, hearing and subsequent communication difficulties do not receive a high priority in aged care. Hearing loss is seen as a specialist area, stand alone, and my argument in this oration is to promote the idea that hearing and communication difficulties be integrated into general aged care protocols so that people do not get to that stage of social isolation. It's vital that all primary aged care workers have a good knowledge of hearing loss, its impact and how they can provide practical strategies to support older people with hearing loss.

So this requires a holistic approach, and particularly it requires a good amount of hearing and communication training in the initial training of primary aged care workers and also subsequent continuing education. We need to be able to assist older people in their everyday communication to maintain their everyday living skills and participate in those valued social roles.

What I want to do is give some theoretical background to the things I'm going to talk about and describe the functional impact that hearing loss has on everyday activities. The second part of the paper is then to describe some of the practical strategies that you may be using and some others that you may not be aware of that help support older people who are experiencing hearing impairment. And for this I'm going to use the World Health Organization International Classification of Functioning, Disability and Health—the ICF—which provides a useful model to describe the range of outcomes that hearing impairment can cause.



The three levels of impact are, with any health condition, the first level function, what used to be called impairment, and this is at the body level, and this causes a loss of body function. And in the case of hearing, it is a sensory neural hearing loss.

The next level is activity, or what used to be called disability, and this is at the personal level, and this is where the condition causes a diminution of the ability to perform an activity. Then we look at, with the hearing loss, obviously that's difficulty in communicating. And the particular example that I've got there is difficulty communicating on the telephone.

At the third level it's participation or participation restriction. And this is at a societal level, and this is where the health condition impacts on the person's ability to participate in social activities and social roles. And in this case that I've given, the example is because of difficulty with using the telephone, they lose that very valued social role of friendship.

So in the first part of my talk I'm going to look at the function level or the level of impairment and talk to you about the extent of hearing loss and also its effect on the different conditions that can cause it and what effect it has on a person's everyday living. And as Jenny has already described, hearing loss is highly prevalent.

In the 2006 oration, Professor Harvey Dillon reviewed a lot of recent epidemiological research conducted in Australia which pointed out some key statistics, some of which I've got on this screen here. Two point eight million people in Australia currently have a hearing loss. The prevalence and severity of loss increases with age. Jenny pointed out that some 80 per cent of people in residential care have a significant hearing loss. With the ageing of the population it's likely that 4.9 million Australians will have a hearing loss, a hearing impairment, over the next 25 years.

Presbycusis, or age-related hearing loss, is marked by a number of features. First of all it's permanent. It can't be remediated by medication or surgery. Generally it's of a gradual onset, insidious in its uptake. The degree of hearing loss can vary from mild to severe, both ears are commonly affected, and very often it's associated with a tinnitus or whistling or ringing in the ears, and this itself can be very debilitating. The key feature of age-related hearing loss is that it causes a loss in the perception of high-frequency sounds. High-frequency sounds include the consonants – f, s, t, sh – the parts of speech which give clarity to what we hear.

As well as losing the ability to clearly hear speech, there's also an increased intolerance to loud sounds. Sounds that are quite loud for the normal hearer will be intolerably loud for a person with presbycusis. Generally it involves a problem in the cochlear, the sensor organ of hearing, and as I said before, this cannot be operated to remediate the problem.

And at this point I want to mention the other aspect of age-related hearing loss, which is considered so trivial that it doesn't attract much attention, and that is wax occlusion in the ear canal – a very, very simple condition to remediate. A study I was involved in in a nursing home a few years ago, we did otoscopic inspections. Eighty per cent of the residents had total occlusion of one or both of their ears. It seems trivial, but when you've ever had a blocked ear yourself, you know how it puts you off communication.

The gradual onset of hearing loss means very often a person is unaware of the degree of their hearing loss. They find that they can hear people sometimes, they can certainly hear low-frequency noises, they can hear the car engine, they can hear knocks at the door, but they can't always hear clearly what people say. From the other person's point of view, they think that the person can hear what they want to hear. They are unaware of the impact of the environment on the person with an age-related hearing loss, how the environment impacts on their ability to hear.

So I thought at this stage we might just have a bit of listen to what a hearing loss might sound like. I'm relying a little bit on technology here, so I hope it works. Thanks, Julie. What I'm going to do is play a tape which has been artificially filtered to simulate a severe high-frequency hearing loss. On the tape you're going to hear 10 words. If you've got a piece of paper in front of you, just jot down what the words are.

[Tape played]

RICK OSBORN: Julie will be giving chocolates to all the people who got 10 out of 10 for those. Just looking around the room when you were doing that, I saw initially people had their pens ready to go. Some would sit forward and listen intently; then the other response was – “too hard” – and withdraw. And that’s basically the response that you might expect when you do have a severe hearing loss. It becomes very fatiguing. You have to strain a great deal to hear. I’ll just play that again so you can hear what the words were.

[Tape played]

RICK OSBORN: So who is ready for chocolates? It really is quite difficult. Maybe what you did hear in those 10 words were the vowel sounds. You might have got close to the word. You would also have heard the call of “number one, number two, number three”, and that really cues you in to when you’re aware of what the person is talking about, you fill in, you cognitively fill in what’s missing. So you can understand why the older person with presbycusis might confuse “cats” with “catch”, “thumb” for “some”, et cetera.

So at this level we’re still talking about the level of impairment. How do you know when a person has got a hearing loss? Obviously they frequently request repetition – “What? Eh?” They may speak loudly; they may answer inappropriately; complain about people mumbling. Now, this is very easy to understand if you think your hearing is okay because you can hear low-frequency sounds but you can’t understand what the person is saying, obviously it’s their speech that’s at fault. You’re not picking up the consonant sounds. You’re not getting the clarity that’s required, and so therefore it sounds like they are mumbling. You often get leaning forward, cupping of the ear to understand what’s being said, but the main thing you notice is that people have difficulty in background noise.

I now want to move on to other compounding factors that might accompany ageing. And the first one that I want to address is vision loss, because again it has very high prevalence in the population 65 and older. Common types of vision loss include age-related maculopathy, glaucoma, cataracts and diabetic retinopathy. Something between 10 and 25 per cent of older people have one of these conditions.

Let’s see what these different conditions look like. This is a typical family photo, family scene, where we can see the individuals quite clearly. The little fellow on the front looks like he’d be trouble, but this is what we assume that people see and we all enjoy the same thing. With macular degeneration, and this is a severe form, what you get is a loss of central vision, you lose detail, so that where you look, you can’t pick up the features. You need good central vision for reading, for recognising faces and for determining colour. So this scene here you can see the person can get the shape of where there is about, they can move about quite well but certainly have difficulty with detailed vision.

Glaucoma is quite the opposite. You have good remaining central vision, but the peripheral vision is affected. So that person has to scan quite a bit to see what is in the field. Cataract, which fortunately is operable but in less developed countries cataract is the major cause of blindness. Cataract causes a general blurring, so we can consider it’s like looking through frosted glass rather than through a clear pane of glass. And finally, retinopathy due to diabetes, which causes a patchiness of vision, so things are there and then not there.

If we consider then what some of these conditions might cause when looking at a person, you can see that vision loss also impacts very heavily on communication. We all rely on lip-reading when we’re in difficult listening situations. At any party – at the dinner party last night I understand there would have been quite a bit of lip-reading going on. Facial cues are missed. So there’s lip-reading, but also the facial cues that give us so much more and enhance our understanding of meaning and emotional context. We don’t get that a person is being sarcastic, ironic or telling a joke or winking or whatever, so we rely very heavily on some of these other aspects of communication in giving us the rich and emotional aspect of speech.



So some of the effects of vision loss on communication are that facial cues aren't picked up; lip-reading is certainly more difficult; non-verbal cues – pointing to various reference are hard to pick up. So even a mild hearing loss is exacerbated. Again background noise is the main problem.

At the end of this session we'll be handing out some vision loss simulators to take with you to remind you of those different conditions, and it sometimes helps when you look around, perhaps one of your older client's living environments, just what it looks like to them and how they might perceive you when you're talking with them.

Cognitive changes. There are obviously normal age-related changes to cognition, as well as specific changes associated with dementia, neurological conditions, such as stroke. They can lead to major problems or from a mild slowing of information process through to marked changes in language and memory function. We all know, and I certainly know, that I'm slower at learning to adopt new technology, like internet. My children are much better at doing that than I am. Older people traditionally have a bit of difficulty getting used to ATMs, using the internet, and certainly in training people about the use of their hearing aids, sometimes it takes a little more time.

With dementia of course a hearing loss exacerbates any of the communication difficulties caused by dementia, and the two interact, so that learning how to adopt new ways of listening and ways of managing the hearing aid can be very difficult for a person with early-onset dementia. Also it's quite possible that dementia and sensory loss can be confused, so sensory impairments can mimic some of the behaviours, if you like, that are associated with dementia – confusion, disorientation and forgetfulness are things which may arise from sensory loss.

I know a study a while back showed that when conducting a mini-mental test with older people, they certainly did much better when they had amplification than without. Now, their cognition didn't change, it's just that they heard the questions much better. So hearing and cognition interact to give the person's overall communication functioning.

Physical changes. Obviously tactile sensitivity, arthritis affecting hand movement, tremor caused by Parkinson's disease or paralysis due to stroke is going to impact on the person's ability to physically manage hearing aids.

Now I want to briefly look at the level of activity, or what used to be called disability, which is at the person level, the difficulty in performing everyday tasks. And the example I gave before was listening on the telephone. The activity limitation may be things like: not hearing the door bell; having difficulty hearing the shop assistant when out shopping; and at a more important level, feeling confident when caring for grandchildren, knowing what they are saying, hearing what they are saying, hearing them call.

Certainly there's a reduction in speech comprehension. And what you found when you were listening to that tape was that it's effortful to hear, you have to put in extra effort and it's therefore fatiguing, it's therefore tiring; even small things such as recreation, such as the enjoyment of music, the enjoyment of television, being able to easily follow television programs – you will find a lot of people say that there's nothing good on TV. They have real difficulty listening to films and shows on TV, but they may enjoy the news, where the person's face is on the screen. They may also enjoy soap operas, where there's no background noise and the message is repeated and repeated and repeated.

Again briefly I want to just have a look at participation, the participation level of impairment, and this is at the societal role level. And we're looking at participation or participation reduction caused by hearing loss. And here it helps to look at models of human occupation to assist us to understand the importance of social roles in giving purpose and structure to our lives. Humans innately seek activity and life role occupation to provide structure, routine and a sense of purpose and achievement.

For older people, key life roles include: family, friendships, volunteer work and community involvement. It may be in the CWA, Legacy, U3A – any number of things. Occupations assist people organise their time into patterns and habits, and when people withdraw from major life roles, the changes in routine and resulting imbalance have a serious impact on their lives.

From the point of view of the older person with hearing loss, they find that they may have to strain to hear what's being said. They mis-hear people's comments. They miss the punchline of a joke or commonplace asides, and do not pick up on the nuance that really enrich our interactions and communication. They may lose enjoyment in conversation and therefore feel cut off. From the family's perspective, the older person seems tuned out. They may misattribute this tuning out to lack of interest, dementia, depression. And sometimes friction within the household is caused by things like having the television too loud or irritability arising when things have to be repeated. The personality can be misjudged. They can be seen as being disengaged or grumpy. And even their competence and their ability to live independently may be questioned by caring families. Strained relationships may snowball and withdrawal from family, social and community roles may come about, as I've mentioned before. It may also lead to loneliness and social isolation for the person and psychological impacts, such as anxiety, frustration and depression.

So there's a loss at an individual level and a family level, but there's also an enormous loss at the community level, particularly in rural and regional areas. A valuable resource is lost to the community when a person withdraws from their life roles of volunteers or neighbours, sports clubs and social groups. So that participation reduction that's caused by hearing loss has a major impact, not only at the personal level, but at the social level. So that's the bad news.

Now I want to focus for the rest of my time on the practical strategies that you do adopt and some that you may not be aware of. And the first practical strategies is personal amplification. I'm going to look at amplification, assistive listening devices, so there's the technological side, but then there's also the communication strategies which are required by the older person themselves, but also a good understanding of good communication by their family and carers. Finally, if I get time, I'll look at the built environment.

Hearing aids are the most common way of remediating a sensory neural hearing loss. There are behind-the-ear hearing aids, which you're familiar with. There are now smaller ones with micro-tubing, which are very cosmetically appealing. There are in-the-ear hearing aids; and in-the-canal hearing aids. And the slide I'm showing just gives a bit of an idea of the sorts of hearing aids that are common.

One of the problems with hearing aids is that people tend to have a negative perception of them. They've heard from friends or from the parents or whatever that hearing aids make background noise too loud, they are uncomfortable, they're unwieldy, they whistle. So initial problem that we have as audiologists is to encourage people that there have been significant changes in hearing aid technology to overcome these problems.

Some of the great advances in technology have been that systems are now very much more simplified. We can fit hearing aids that don't have switches or volume controls but rather the aids automatically adjust to different listening situations, from a quiet one-to-one conversation and being able to hear in all directions, to when the person moves into a room where there's noise, it instigates directional microphones and also cuts out noise. So there are noise reduction components in the hearing aid itself, and the hearing aid makes these transitions without any knowledge of the person themselves. The person just wears them and they are fine.

Multi-channel and data logging are technical terms which just mean that we can more easily customise the hearing aid to the person's particular needs. The hearing aids store that data themselves. You can have feedback control, so no longer is there any excuse for a hearing aid to whistle. And sometimes they come fitted with remote controls.

But adjusting to a hearing aid still requires a major change for the person. They have got used to living in a very quiet and tranquil world, and then they get the hearing aid and they become aware of the airconditioning in the background, they become aware of fabric noise, of scuff sounds on the carpet. So they leave their very quiet and tranquil world and enter into the world of normal hearing. Newspaper reading becomes a very loud and noisy experience. It really requires a lot of support and encouragement for the person to make that transition, because only by making that transition and accepting the high-frequency sounds that they've been missing out on can the person then fully enjoy the clarity of speech, particularly in noisy environments.



I like to think of people getting accustomed to their age in incremental steps, so that what took a long time for them to get to a severe hearing loss, we bring them back to hearing as close as we can to very well in steps. So they certainly need a little bit of gentle encouragement along the way to build their skills at dealing with the hearing aid and also to accept the noisy environment, the noisy world that we live in.

I'm going to just move forward a little bit now and look at other devices that might be appropriate. Sometimes a personal hearing aid may not be acceptable by the person, so we look at more general devices. And in nursing homes, for example, it's very useful to have an aid which the person only uses when they are actually in communication with nursing staff or family. So something as simple as a little amplified listener where the person can hold the hearing aid, wear their earphones and hear clear what's being said while that conversation is going on, and then they can get rid of it when they are going back to their other activities.

FM systems are a more sophisticated form of that, where the speaker has a microphone, there's not a connecting wire, but the person can then hear very clearly the speaker through their hearing aids or through headphones, overcoming background noise problems. There are amplified telephones, visual alarms, cordless television headphones, teletext captions for television, and even things like fax machines and SMS can help.

An FM system is here. You can see the signal passing as clearly to the hearing impaired person wearing their hearing aid as it does to you in this auditorium. A large button, amplified telephones to enhance the speech signal, and the ringing signal. Cordless headphones – terrific, necessary for any household, really overcome some of that friction around the loudness of the television.

So there are some strategies which you would be using. They fall into these things: modify the environment, modify speech, modify your conversation. Background noise. If there's one thing you take from this talk, it is that background noise has a huge impact on a person with a hearing impairment's ability to hear. Move to a quieter area, switch off the TV.

If you wanted to design a room which ensured that older people didn't speak, you would design a nursing home lounge room, where you have the chairs lined up around the outside of the room, not directed to each other but directed to the centre of the room; you have a television monitor in the corner with Days of our Lives playing, which no-one is listening to because it's not clear enough but it just creates the background noise; and you have a lot of people in the room so that there's noise. Being close to the person, facing them, and having no background noise is the way to go.

Speaking slowing. I'm speaking faster now because I know Julie is breathing down my neck. And speaking clearly is obviously the way to go, with pauses, because we all require pauses in order to think about and fill in the gaps of things we have missed.

The main thing I want to say about this slide is that it's important to establish the topic. As you saw with that simulated hearing loss, once you understood that it was numbers coming, you could anticipate, and you actually heard quite clearly what the word was, although it was equally filtered as the word itself. Maintaining the topic is important. Built environment. We need smaller spaces, carpet and soft furnishing, and sound absorbing surfaces.

So we've looked at background theory, the functional impact and the practical strategies. And I want to just finish now, Julie, with my summary slide, which is to say that hearing loss is highly prevalent. It has a substantial impact on a person's independence and life role participation if left untreated. It can have psychological consequences for the person. The individual requires amplification. Some 30 per cent of people who require hearing aids get them. There are a lot of people out there who would benefit from a hearing aid, but because of the negative attitudes they have and lack of knowledge of where to get them, miss out. As well as getting the technology, they also need the social support from family and carers. And we all share this responsibility. Thank you.

FACILITATOR: Thank you. Ladies and gentlemen, I won't go to questions because we will be going in about five minutes to our split plenary, but I would like to welcome to the stage Alex Jones, the chair of the Deafness Forum Australia, who's going to official thank our orator.

As Alex comes to the stage, if he'd like to come up, I can't be the only person who shivered at the thought that 80 per cent of the people in the study of the nursing homes that Rick was involved with had wax in their ears. It's that sort of practical issue that will stay with me, along with a lot of the other information that I heard. But let me get out of the way for Alex, please.

ALEX JONES: That was great. It's Friday afternoon and she's still sharing. So, Rick, on behalf of Deafness Forum Australia and the Libby Harricks Memorial Oration committee, I'd like to thank you for coming and presenting today at this health conference, and I'm really honoured that you can be here to share this information with us for people who have age-related hearing issues. And I'd like to thank the Australian Communication Exchange, Australian Hearing and Cochlear for making this happen.

I would also like to add to your presentation that the Australian Communication Exchange has a service called the National Relay Service where a deaf person or a person with hearing impairment can call their friends and can communicate with the outside world with this service. And I think that's probably a good addition to your presentation and giving people with age-related hearing loss strategies for their communication. So, really, thank you, Rick, for your presentation today. And I would like to present you with this award and thank you very much.

FACILITATOR: Guys, do you want to just get together and smile at the photographer. We have our own personal Rural Health paparazzi – paparazzo. Alex knows how to do it. And the beautiful team have been handing out the vision cards for people to have a look at as well. Could I just draw a quick connection between our Highwater and Somebody's Daughter Theatre and the very erudite presentation that we've just had, and that is, undetected problems. Over 60 per cent of the young people involved in that Highwater Theatre group have been in foster care, and some of you would be familiar with a major research project that I think was based at St Vincent's Hospital in Sydney, but anyway a major research project into quite a large number of foster children, discovered a very significant range of undiagnosed, fundamental problems – tooth decay, hearing loss, lack of glasses. And those very, very basic matters of course can make an extraordinary change in people's lives – for example, getting the wax out of your ears. So it was just a little link that occurred to me.

Ladies and gentlemen, in terms of housekeeping, I'll simply say, if you're unable to stay until tomorrow, please don't forget to get one of those lime green evaluation sheets and complete it, because, as I said earlier, the Alliance is being evaluated itself, and an assessment of those evaluation sheets is going to be part of their assessment.

But now I would like you to put your hands together and thank finally Jenny Rosen, Rick Osborn and Alex Jones.

Yes, sir.

RICK OSBORN: I know it's not possible to get the last word on Julie, but I did say I'd be in a lot of trouble from Jenny if I don't point out that there is some very good continuing education program available at the desk, and this is something that's got a CD and a video in it and it covers some of those practical strategies which you might like to have a look at.

Thank you, Julie.

FACILITATOR: Thank you. And thank you also to Paul and Mark, our interpreters this afternoon.

Well, ladies and gentlemen, between 2.30 and 3.30 we now have a split plenary. Those of you who are going to Art for Life, Health and Community, which is being chaired by Chris Pidd, our Murray Arts man who's been so influential in this marvellous collection of performance, that is starting in about two moments in the theatrette. So, you go over those stairs and go up.



The other people who wish to attend Successful Health Service Design that is being chaired by myself here, if you could just stay here. So I'll just shut up for a couple of minutes while our theatre people go, and they no doubt supported the funding of the arts in this morning's session, and we'll start in just two moments.

## Presenter

**Rick Osborn** studied Science, Economics and Education at LaTrobe University, and Audiology and Special Education at the University of Melbourne. Rick has held a number of positions in service provision and management roles and has been responsible for a number of clinical and rehabilitation programs. He has also been active in developing collaborative programs with other ageing and disability agencies, both in Australia and in a number of neighbouring countries. He is the author of many papers, articles and chapters on sensory loss, and is a frequent presenter at national and international conferences in this field.

