Lending an ear

Professor Stephen O’Leary’s work with Indigenous children can have life changing effects

Renowned ENT surgeon Professor Stephen O’Leary, a former recipient of the College’s most prestigious award, the John Mitchell Crouch Fellowship, was asked in July to give a public lecture as part of celebrations marking the 150th anniversary of the founding of the Royal Victorian Eye and Ear Hospital. And although he is known for his research into developing new techniques to protect hearing from damage during surgery to the inner ear and the design of virtual technology to increase the skills of trainees, he chose to speak about the work being done by researchers and clinicians at the Eye and Ear Hospital to eradicate preventable hearing loss among Indigenous Australians.

Indigenous children in Australia have the highest prevalence of Chronic Suppurative Otitis Media in the world, a condition that can lead to significant hearing loss which in turn directly contributes to the cycle of disadvantage by diminishing opportunities for education, employment and social engagement.

Professor O’Leary said the high rates of Otitis Media in the Indigenous population were not simply a matter of hygiene, nutrition and access to clean water, but also biological determinants. “Indigenous children have a greater bacterial load in the adenoidal space which is also more pathogenic than that found in other populations, but we don’t know why,” he said.

“That means they often get these infections earlier and more severely than other children, and they tend to last longer. The fluid behind the ears causes a hearing loss, and the condition may persist throughout childhood.”

“Then, of course, if it is not treated and the infection is severe enough, the pressure can blow a hole in the eardrum causing significant and persistent hearing loss.”

Professor O’Leary said he originally became involved in the work with Indigenous children through a commitment by the hospital and the Department of Otolaryngology at the University of Melbourne to make a dedicated contribution to improving Indigenous ear health.

“Most people involved in this area of medicine were very keen to help because kids in particular have this window where treatment can influence language acquisition, education and social skills,” he said.

“But children are not often able to articulate how they feel when they can’t hear properly, you can see in their social behaviour that they are deeply affected.”

“In some ways it is even harder on teenagers who have such a strong need to fit in with their peers so there were many of us in the hospital – surgeons, audiologists and nurses – who felt very committed to helping these young people.”

Professor O’Leary said the program linking Eye and Ear Hospital specialists directly with the children in need began in 2008 through the efforts and enthusiasm of Indigenous Surgeon Mr Kelvin Kong, Chair of the College’s Indigenous Health Committee.

He told ENT surgeons that the Alice Springs Hospital needed help, with long waiting lists of Indigenous children needing treatment.

Teams of surgeons, audiologists and specialist nurses from the Eye and Ear Hospital began visiting that same year. Professor O’Leary has now done 10 visits to the Northern Territory.

“A particularly note-worth aspect of this program was that it was not about surgeons and specialists going up there as volunteers, but rather it was a formal agreement between the Alice Springs Hospital and the Eye and Ear Hospital,” he said.

“This to me was important because it meant that we weren’t just there to help out when we felt like it; we were there as part of a vision and commitment by our hospital to help members of Alice Springs and surrounding communities.”

“Now, fortunately, more resources have been put into ENT care in the Northern Territory with more infrastructure provided, due to government recognition of the breadth of the problem, and now the Alice Springs Hospital has its own ENT surgeon and service.”

Professor O’Leary said that at the same time as the NT program was underway, the Eye and Ear Hospital also decided to focus on the needs of the local Victorian Indigenous community.

He said a hospital-based audiologist, Brooke Paisley, set up to establish rates of ear disease within the community through visits to Indigenous pre-schools and a secondary college in Healesville.

It was clear, he said, that a far higher number of local Indigenous children had Otitis Media compared to children in the general population.

“There was clearly a local need for treating children identified during screening. When we began this outreach program we would bring the children to the hospital for further testing and treatment, but we always wanted to do as much of this work as possible in a more culturally appropriate setting.

“For the past two years, however, we have run a monthly clinic at the Victorian Aboriginal Health Service in Fitzroy which is a really fabulous development because it allows us to see the children where they are comfortable, with those needing surgery brought into the hospital by Indigenous health workers.”

So successful has the outreach program been, that it was one of three Aboriginal ear health clinics to receive a state-of-the-art voroscope from a donation by the Wilbur-Ellis Connell Bros Company of Australasia through the College’s Indigenous Health Committee.

Professor O’Leary said the voroscope, a head-mounted microscope that provides a clear view of the inner ear and ear drum, would be invaluable not only for diagnosis, but for training.

“This piece of equipment was invented by the Australian ENT surgeon Dr John Vorrath,” he said.

“This will help us at the clinic to not only treat the children in need, but also to train Indigenous health workers and doctors in understanding and diagnosing ear disease.

“We want to transfer as much of our knowledge as possible so that Aboriginal health workers and doctors can share in the care of their patients.”

This program has grown to encompass over 300 children and up to 10 visits a year, with future plans to extend it further through the Northern Territory.

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“It’s a focal point for not just outreach services, but also in the development of major research projects and we are now running a national trial to determine the best treatment options for Indigenous children with Otitis Media funded by the NHMRC.”

“The Eye and Ear Hospital brings together surgeons, scientists and other health professionals which creates the kind of synergy that allows major research projects to get over the line and off the ground and it is a venerable institution that all Australians should be proud of.”

With Karen Murphy