EDUCATION AND HEALTH STANDING COMMITTEE

AN INQUIRY INTO IMPROVING EDUCATIONAL OUTCOMES FOR WESTERN AUSTRALIANS OF ALL AGES

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
THURSDAY, 23 AUGUST 2012

Members

Dr J.M. Woollard (Chairman)
Mr P.B. Watson (Deputy Chairman)
Dr G.G. Jacobs
Ms L.L. Baker
Mr P. Abetz

Hearing commenced at 10.00 am

LEHMANN, ASSOCIATE PROFESSOR DEBORAH
Researcher/Epidemiologist, Telethon Institute for Child Health Research, examined:

The CHAIRMAN: On behalf of the Education and Health Standing Committee, I thank you for your interest and your appearance before us today. The purpose of this hearing is to assist the committee in gathering evidence for its inquiry into improving educational outcomes for Western Australians of all ages. At this stage I would like to introduce myself, Janet Woollard, and Mr Peter Abetz, committee members, and our secretariat, Brian Gordon and Lucy Roberts. From Hansard, we have Sandra Stockman and Moira McFarlane. This committee is a committee of the Assembly. This hearing is a formal procedure of Parliament. Hansard will be making a transcript of the proceedings for the public record. If you refer to any document or documents during your evidence, it would assist Hansard if you could provide the full title for the record. Before we proceed to the questions we have for you today, I need to ask you a series of questions. Have you completed the "Details of Witness" form?

Prof. Lehmann: Yes.

The CHAIRMAN: Do you understand the notes at the bottom of the form about giving evidence to a parliamentary committee?

Prof. Lehmann: Yes.

The CHAIRMAN: Did you receive and read the information for witnesses briefing sheet provided with the "Details of Witness" form today?

Prof. Lehmann: Yes.

The CHAIRMAN: Do you have any questions in relation to being a witness at today's hearing?

Prof. Lehmann: No.

The CHAIRMAN: Thank you very much for coming along. Brian will have sent you the terms of reference for this inquiry. Whilst hearing is not particularly singled out as part of our terms of reference, when we went up to the north west earlier this year, we became aware of the severity of hearing problems in Indigenous children. We have been following up on that to see whether we can make some recommendations to try to make a difference and reduce some of those numbers. We really value you discussing the hearing problems with us. You will have seen problems associated with FASD. Health affects educational outcomes so much that we would like you to look at our inquiry as a whole and maybe tell us what problems you see in health that would lead to children not doing so well before school, at kindy and then later when they move on to primary school and high school. We are quite happy to sit and listen to you. If that is all right with you, afterwards we will ask you some questions.

Prof. Lehmann: They are not necessarily Indigenous but the major concern is Indigenous children. Is that correct?

The CHAIRMAN: We are across the board. If you want to say that this is a general problem but this other problem affects more Indigenous children, we are quite happy. We are here to learn from you.

Prof. Lehmann: Maybe I should explain where I came from. Since 1998 I have been in Western Australia. My main work in ear health has been in the goldfields, where we conducted a study with Harvey Coates and others following children from birth to two years and asking why these children

are getting ear disease. That involved taking swabs, looking at bacteria, looking at viruses and looking at immunity. Since then, after our findings, which I will mention in a minute, we got some funding with Healthway development and implementation program to see what kind of health promotion program might help the situation. The other activity I was involved in was the swimming pool project. I ran the swimming pool project around the state.

I took the liberty of making you copies of this conceptual framework that we developed when we were developing the analysis of the study really to point out that this is a very complex issue. One thing is not going to fix all. Things start very, very early in life. This is not a final diagram; these are definite results. This is what we know exactly causes otitis media. It is more a framework that underpinned our research, and we have some findings from that. We have talked about the causes and these relate to issues such as marginalisation, parental education, starting off with colonisation of Australia, resulting in fixed settlements, affecting housing in children and then the crowding issues and issues of hygiene. In the centre is the very, very high rate of transmission of bugs, in particular, bacteria. I can tell you which bugs later on if you want. The more I am thinking of it and the more results we are getting, I am thinking that this very early onset, this very dense carriage, is something that the Northern Territory and people at the Menzies have talked about since 1980. I think Amanda Leach's paper came out in 1994. These children get the bacteria in the first days of life. By the time they reach two months of age, 40 per cent are carrying the bacteria, in contrast to 10 per cent of non-Aboriginal children. At the same time, they are tracking the otitis media. We are seeing otitis media within days of life. Where do we start?

The CHAIRMAN: Is it a streptococcal infection?

Prof. Lehmann: The three main bacteria are called nontypeable haemophilus influenzae, streptococcus pneumonia—pneumococcus—and Moraxella catarrhalis. Those are the main bugs. I think the nontypeable haemophilus is probably considered more and more important. For the streptococcus pneumoniae, this is before they are even going to get their first vaccine.

Mr P. ABETZ: Do they get an infection in the sense of symptoms?

Prof. Lehmann: Yes. This is another issue around ear health in Aboriginal children. You can see a child with a bulging eardrum and they are smiling at you. They are often asymptomatic. The mother is not going to take the chance, until it hurts and then you get the discharge, when it is maybe too late or you have to act very quickly. This silent disease is really important as well because it means you have to look all the time to see if they have it.

The CHAIRMAN: Where we currently have the universal health checks—one in the first 10 days and then I think the next check comes at three months—do we have statistics from some of these Aboriginal communities that say in the past the rates in this community have been this high? Should we be recommending that where it has been high in the past, we should have someone checking the child's ears every two weeks?

[10.10 am]

Prof. Lehmann: Yes, please. I can tell you about what we have been doing in Kalgoorlie, and this started about three years ago. As a result of the early findings, we developed a program that looked at training health service staff, regular screening of children and health promotion in an innovative manner—and I can go into that. So, there are three key factors: get your kids checked regularly, keep environmental tobacco smoke away from the children and promote hand washing. This is what we have been doing, and we involve all the organisations in Kalgoorlie. So we have been involved with the Aboriginal Medical Service, the Ngunytju Tjitji Pirni, the Rural Clinical School and the Population Health Unit. For me what has been the most exciting part is that everybody is really beginning to work together; they are sitting around the room and talking to each other. I was there less than two weeks ago and there was a whole table of people from the different organisations and from the school as well, and that has been a very positive aspect. We are just in the evaluation

phase. I can let you know of the comments. People are very enthusiastic about the program and, okay, it might be partly the result of one champion, one person, who is basically committed and who may well become a coordinator later on. We have expanded too; we have worked in Leonora, Laverton, Coolgardie. Initially we had a program saying, "Get them checked when they have their needles and things", and we realised that was not going to work. We also realised that when using new equipment and looking in ears, they were a little bit anxious. They need a lot of supervision and training and people said, "No, no, no, I couldn't do that, I couldn't possibly do that." But that has changed now after three years, through not so much supervision but support being shown. Another great tool has been what is called the video otoscope. I do not know if you know what that is, but basically you can look at the eardrum on a screen and then everybody can have a look and see what the problem is. One said, "Oh, I didn't realise that was the problem." That is a great educational tool, so we will see what happens. NTP, for example, which is the mothers' and children's program in Kalgoorlie —

The CHAIRMAN: What does NTP stand for?

Prof. Lehmann: NTP is Ngunytju Tjitji Pirni. It is a maternal–child health program that was set up in the 1980s by Christine Jeffries and Fiona Stanley, and it has survived and it is really going well. They were not really at it and doing much but they got themselves into it. They now have a Wednesday morning dedicated to ear health. They are hoping to link up with Harvey on telehealth and they have two people, but one person in particular who is really passionate about this; it is an Aboriginal person. And I think the Aboriginal people know it is a problem. There is another girl who works at the Aboriginal Medical Service who is now coming on to our infectious diseases community reference group and she came to me and said, "You know, this is a real problem. My child is now nine months old and has had an ear perforation and I want to learn how to do audiology, and all my rellies are coming to me and trying to get their ears checked." So there are people who are concerned and who really want further training and support.

The CHAIRMAN: Can we go back to that question I asked you previously then, because we as a committee have been trying very hard to get funding for child health nurses for their checks, whether it is child health nurses or Aboriginal health workers or Aboriginal ear health workers?

Prof. Lehmann: I am sorry, to do those checks?

The CHAIRMAN: For the checks, where you said that they need to have more regular check-ups. If we put aside who does the check-up or who is trained and qualified to do that, how often do you think those check-ups should occur? I think you said that 40 per cent of Aboriginal children have some problem in the first few months, compared with 10 per cent in the general population.

Prof. Lehmann: Yes. I have always recommended you take every opportunity to look in the ears when a child comes for their needles or when a child comes for an illness—obviously any fever I think—but if you want to do it routinely it would probably be what we suggested initially: zero, two, four, six, 12 and 18. So really a bit more intensive the first year and annually.

The CHAIRMAN: So two months, four months, six months, 12 months and 18 months?

Prof. Lehmann: Yes, and I think they get checked at school, do they not?

The CHAIRMAN: That would mean possibly the addition of one or two more visits on top of those universal health visits. That is what we need to look at.

Prof. Lehmann: You see that is the time they come for needles—but that was a problem too—because we thought that makes sense to us.

The CHAIRMAN: But they are not coming for those needles; this is the problem.

Prof. Lehmann: Yes. Quite a lot of them are. People complain about low immunisation rates, and I agree that there are delays in getting immunised and there are a whole load of issues behind that. It is not just that they do not want to, as you know, but I think the staff were hesitant to add something

else at that time as well. So they felt that if the kids are going to get the needles, they do not want to trouble them by checking the ears as well.

The CHAIRMAN: In fact the Auditor General produced some statistics showing that 90 per cent of children had their birth to 10 days check-up, 30 per cent got the 18 months check-up and 10 per cent got the three years check-up.

Prof. Lehmann: Yes.

The CHAIRMAN: So we know there has not been the staff there to do these check-ups, but if you are saying two, four, six, 12 and 18 months, that is something that we can then work on in terms of looking at who is available.

Prof. Lehmann: Yes. Harvey found about the same, did he not—about three times?

The CHAIRMAN: I do not think we actually asked him, because we met with Harvey last week and I think that is one of the questions we did not put to him. We could follow up and check with him as well in relation to that but it is something that we could check. Was it Harvey or Ganesh who mentioned an Aboriginal ear health worker?

Prof. Lehmann: Yes, I wondered about that again last night and we have sort of provided funding for that. I think great, but I think unless they are really passionate about it, they tend to get a bit bored; you know, people like more diversity. There is really a very good program being run by NACCHO now, a training program.

The CHAIRMAN: Is this the one in Sydney, NACCHO?

Prof. Lehmann: She has come to Perth as well, I think.

The CHAIRMAN: Who is NACCHO?

Prof. Lehmann: The National Aboriginal Community Controlled Health Organisation. So they have got a training program. I can get you the contact of who does it.

The CHAIRMAN: That would be wonderful.

Prof. Lehmann: This one person at NTP and another went and it was really good. I think it is several sessions, and that needs to be followed up, so I am not too sure how that is working, but I think that is a really big plus. There was also a request: "Okay, now the health workers are getting the training, what about us as the community health nurses?" So they do need retraining and encouragement as well. One thing we are encouraging is using what is called a tympanometer. It is really a very easy tool and to me easier than looking in an ear. I am a doctor, I am trained and I do not like looking in ears; unless it is a big hole, I do not see too much. Harvey has tried for a long time actually. It is like a little rubber thing. You cannot do it before the age of about four months. It gives a seal. It does not hurt. It makes the teeniest little noise. Basically if you have a flat line, that tells you there is a problem, as opposed to a peak like that—so it is a very clear-cut thing.

[10.20 am]

The CHAIRMAN: It is something you just pop in the ear, and it gives you a measurement, and then you just take it out.

Prof. Lehmann: Yes. It is called a tympanometer. Now there has been an enormous amount of money put into equipment nationally I think. Anyway, there is lot of money and lot of equipment has arrived.

The CHAIRMAN: We became aware of the problem in schools. One of the paediatricians in the north west recommended that the school health nurses, particularly in the wet season, examined the children on a Monday morning and, if they had an ear infection, then treated them—BD with the antibiotics, so that the antibiotics could be given at school rather than having to be taken at home. Then they would follow up. If they had a couple of ear infections, they would then see the ENT

specialist when they come up next to see about further treatment. What do you think about that for the older children? Do you think that would be good move?

Prof. Lehmann: Absolutely. School nurses do go out. They are not always that keen to use the tympanometer and things, but there is no reason why. They do identify children with ear discharge. It must vary from one school to another, one area to another. But it is part of their work to go and check kids' ears. We had a school nurse who then made a list and brought all the children with problems to the clinic that was being run at the Aboriginal medical service.

The CHAIRMAN: What training would a school health nurse and a community health nurse need? How many hours of training and how often to really say that they were competent in this area?

Prof. Lehmann: It would not take that long. They have had it as part of their training already. They have had different sessions by different audiologists throughout the years. When we started we had a two-day training course, but then you had to follow up and you had to go out, and that is still the positive aspect of the Kalgoorlie project. We have someone there to go and help and show them where the problems are. As soon as it does not work—it is not immediately straightforward; it gives a false reading—then you give up. If you need ear training, you probably should have good —

The CHAIRMAN: The other thing we discussed is we had the director of child and adolescent health services, Philip Aylward, and Mark Morrissey and Kate Gatti and we actually discussed with them what would need to be done to enable school health nurses or community health nurses to in fact give the antibiotics. They said they would either need to call a paediatrician or a GP or an ENT specialist or else there would need be a change made to the Poisons Act so that they could administer the antibiotics without that call. So there were two ways it could be done. Would you have a preference for one way or the other?

Prof. Lehmann: You are talking to someone who has spent most of her life in Papua New Guinea. There, nurses do all this with no issues. I do not see any reason why a nurse should not be able to give the standard antibiotics. Maybe they should call someone and say, "This is the situation. Should we give it?"; have certain criteria to check that they have not had allergies and things so they would have to answer certain questions. It took a while to get the ear drops onto the approved list for nurses and health workers to provide certain treatment. Ciprofloxacin certainly was approved by the head of population health at some point. As soon as the evidence was clear that Ciprofloxacin was the way to go for ear drops, she included it in the — I do not know what it is called —

The CHAIRMAN: So that we can look that one up, could you just spell that for us?

Prof. Lehmann: Ciprofloxacin—it is the standard treatment for ear discharge.

The CHAIRMAN: Since you have been using those drops, has that made a difference, do you think, with children and ear infections?

Prof. Lehmann: I have not had any statistics in the area. That has been going on now for probably 10 years.

The CHAIRMAN: Can I then take you back to the statistics? Where do we find the statistics, if we want statistics for WA for our regions?

Prof. Lehmann: That is a very good question.

The CHAIRMAN: One of the things that was recommended by Professor Ganesh was Perth as a hub for WA—that there be a hub in Perth. He pointed out to the committee that Perth has only one neurosurgical unit. He said that we should have two; other states have two. He said that it would be good to have an ear centre at a hospital where they have got the surgery so that we are actually collecting all that data and making sure that children in the regions who are classified as a level 1 hearing problem or level 2 or level 3—I am not sure that is how the classifications went—are seen within a time period. They are waiting sometimes —

Prof. Lehmann: What the ear specialist are seeing is the tip of the iceberg. They are seeing only a small proportion, which is the most severe and those people we actually get to them. Really, you need it at the primary health care level. What I have been thinking over the last week or two is: is there a way of having some kind of ear database?

The CHAIRMAN: Yes, that is what we want. How do you think we do it?

Prof. Lehmann: It would have to be something, because not only we do not have statistics, what is going on is people are going to one health worker and then another organisation. One of the concerns that Kalgoorlie is saying is that this is dangerous, and not just for ear health. They have been prescribed something one minute and then the next week someone else comes along with no idea what happened previously. I expect what I was thinking is: basically it would be a gradual inclusion of children with ear health problems. We would not require them to be named. So we would have to establish a database—something like the immunisation register. It would not be necessary, you know, for the parents to access it—so the immunisation register the parents can access it if they have all the details. As soon as there is a child with an ear health problem, put them on with their needs and their alternative needs. This would have to go through ethical approval.

The CHAIRMAN: So like making ear problems a notifiable condition?

Prof. Lehmann: It is not necessary notifiable.

The CHAIRMAN: If we are going to have a register and a database —

[10.30 am]

Prof. Lehmann: You would have to have a register, so that is what it would be—an ear health register. In fact, I think that is what Paul Higginbotham does for Telethon Speech and Hearing. They have a database where they can identify in one place a child from elsewhere. If we did that, it would be a slow process and expensive—well, not that expensive. It would have just the basic information. That would mean we could track these children. Okay, there would be problems with names but it would be a start to try to get that information.

The CHAIRMAN: Funding something like that is a primary healthcare issue. I am just thinking about what we could put to the government. This would be asking for funding from the federal government. I cannot see that our state government would have a problem with us asking for funds from the federal government to establish something like that. That might be something that we would need to write to the federal Minister for Health and Ageing about.

Prof. Lehmann: And it would make sense because people move around; they have no borders.

The CHAIRMAN: Yes. Are there any registers in any of the other states that you are aware of?

Prof. Lehmann: In the Northern Territory they have a morbidity database that has on it every child who has been born and you can evaluate vaccines et cetera. They have used that a lot—sorry, it is only hospitalisations. Now that I have mentioned it, presumably you know all about data linkage in Western Australia. We have this wonderful opportunity in Western Australia to link administrative data, and we have done quite a lot of work on that related to respiratory disease. We are also looking at laboratory results. There is a group at Curtin University that has done this type of work on grommets. I cannot remember the details of the results but the evaluation of grommets was done by Katrina Spilsbury, Francis Lannigan and James Semmens.

The CHAIRMAN: Are they from health sciences? Where are they from?

Prof. Lehmann: James is an epidemiologist—public health. In that situation, they have looked at all the ear surgical procedures in WA. As I say, I cannot remember the details now. That is a very good way of determining how many are done and how successful it is. So that is another alternative. I do not see another way around that. On a local basis, I think there has to be some kind of local coordinator in each setting to coordinate the different organisations and children coming to surgery.

The CHAIRMAN: I am just thinking about all the money the federal government is putting into eHealth. That actually will not be a public health tool for us because it is personalised.

Mr P. ABETZ: You can get the stats off it.

The CHAIRMAN: I do not know that you can.

Prof. Lehmann: In what way?

The CHAIRMAN: I do not know whether a public health unit can tap into those records. It is between you and your practitioner. You might say that this person and that person can have access, but would it not be wonderful if that could be used as a public health —

Prof. Lehmann: It would need approval from a broad range of organisations and the community.

The CHAIRMAN: I think maybe in 10 years' time it could possibly be used in that form. At the moment, the federal government is still trying to get over that first hurdle to get it out there and be used. Maybe at a later date.

Prof. Lehmann: You are right. To know what the situation is on a state basis, I do not think we have that information. We can look at different groups, and especially as a lot of it is silent anyway, you would be picking up things by chance. What about child health checks? I am not sure, but children are meant to have their ears checked when they have a child health check.

The CHAIRMAN: The government said that this year in the budget it would fund an additional 100 child health nurses because we are 150 child health nurses short, so many children at the moment are not getting those child health checks. Maybe when we increase the numbers, we will get more children that way. Yes, that is something that could be recorded and used but, again, that information is not there for us at this point in time.

Prof. Lehmann: Going back to this very early disease, obviously it points to the need for very early intervention, but it also comes down to interventions on the social and environmental scale.

The CHAIRMAN: With those four bugs that you mentioned, where are those bugs generally carried? Are they airborne or transmitted from hand to hand?

Prof. Lehmann: Working in the Northern Territory and Papua New Guinea showed that the pneumococci can sit on the hand. It is basically a lot of hand transmission but there is also nasal discharge. Things move around pretty easily. When we looked at predictors of carriage, the strongest and most consistent was crowding.

The CHAIRMAN: Accommodation?

Prof. Lehmann: Yes. The more people in the house, the greater the chance of carrying these bacteria. Interestingly, if you model it and you increase the number of rooms, you actually attenuate that effect. That was a very nice piece of work by our statisticians. It is so clear that we have to do something about housing. The other thing is whether there are vaccines we can give people at birth or give to the mother. They are not being explored much here. They just finished a maternal immunisation study in the Northern Territory, which has not been finally analysed yet, and we have done some work on neonatal immunisation.

Mr P. ABETZ: Just on the crowding issue, one of the difficulties in Indigenous communities is the mobility of the community moving around, and also the bigger the house, the more people end up going into the house. Have you explored to what extent mobility contributes to the lack of hand washing and not having regular showers? I would be interested to get on to the swimming pool issue as well.

Prof. Lehmann: We have not looked at the mobility. I think there are also issues around the design of houses as well. I have seen in Jigalong houses where the designs were set up by talking with the community about what they wanted. They have a whole book that describes that process. The

houses are much more open and have much more veranda space. Obviously, if there are more houses—people will move, but it is the permanent residency that will go down.

The CHAIRMAN: You wanted to talk about pools.

Mr P. ABETZ: Just before I do, you also mentioned that passive tobacco smoke is a significant contributor. Given that I think the figures are that roughly 50 per cent of adult Aboriginals are smokers, it was seen that if we could get the smoking rates down, we could overcome the life expectancy gap significantly. What is the mechanism for that? You would think that the cigarette smoke would kill everything but obviously it does not kill the bugs.

[10.40 am]

Prof. Lehmann: We think it affects the lining of the nose and so the bacteria are more likely to attach, perhaps, and then that will make it more likely that the bugs colonise and go in the ear. But that was a strong risk factor. I expect one must constantly think of the positive aspects. Fifty per cent smoke, but 50 per cent do not; so there are champions out there and there is a lot of work. Why do people smoke? We have looked at that as well. We have done a qualitative study asking why people smoke, why they do not necessarily breastfeed for as long, and again, the main thing was stress. The stress that these people are under by constant daily burden is hitting all the time—the deaths in the family, the funerals every Friday. Another positive aspect of the work in Kalgoorlie is that they set up a centre there where women can come—it is usually every Tuesday. This is something that they wanted, "We want a chance to get out of the house to go and do our own thing." And so they used that for other aspects, for soap-making workshops and things like that.

The CHAIRMAN: Just to come back, because we know that the smoking rates are up to 50 per cent in some Aboriginal communities, you are saying that with the tobacco smoke, the children are passive smokers and passive smoking is damaging the cilia in the airways, and because the cilia are damaged, the infections are more likely to occur.

Prof. Lehmann: Yes, so it is more likely to become established.

The CHAIRMAN: Are there any papers on that?

Prof. Lehmann: There are some papers.

The CHAIRMAN: Could we ask by way of supplementary information if you could send us one or two of those papers, because that really does support the efforts to try to discourage smoking and to fund programs to help Aboriginal people with smoking cessation, so that would be very useful.

Peter wants to ask about swimming pools and then after you have asked about the swimming pools I want to move on to diet. Do you want to go with the swimming pools first?

Mr P. ABETZ: You mentioned you are involved with that —

Prof. Lehmann: I headed —

The CHAIRMAN: You headed it.

Mr P. ABETZ: I have had involvement in a number of Aboriginal communities in Warburton and I have been going there for 15 years and seeing the improvement. The first time we went, half of the kids had pus running out of their ears, whereas very rarely do we see that anymore. That is just anecdotal from spending 10 days there every year, but is there some good work being done to demonstrate the effectiveness of the swimming pools?

Prof. Lehmann: We wrote up that we did see benefits—this was about 2000 to 2005—that we saw benefits more in one community than another and then we would look at it. The most dramatic actually was skin sores, which is a very big deal, because skin sores are related to heart disease and kidney disease. And for ear disease there was a definite decline in discharge—it went from like 30 per cent to 15 per cent. In that community we had Sharon Weeks with us and she had been to that community 30 years before and the rates had been unchanged, so 30 per cent perforations—30

years before the 30 per cent in 2000-odd—and that we reduced to 15 per cent, so that was good news. We would love to go back and see the situation now.

There is work going on in the Pitjantjatjara through the University of Adelaide, because after we recorded our results, there were swimming pools put up in the lands and also some other parts of WA. The results so far, from what I can see are that they say that it does not have much impact. I think we should go back.

Mr P. ABETZ: A big issue I saw in Roebourne is that the usage of the pool was much less because kids had to pay to get in, whereas in Warburton it is free and the pool is actually the hub of kids' activity. You have youth workers there and it is the place to be—all the kids are in the pool.

Prof. Lehmann: There are so many other aspects to the pool and in some areas they have exercise for the older people. I think Yandeyarra has been really good as well. They wanted more facilities to get disabled people in and things like that. As you say, it became the hub of the community. A lot depended on the actual pool manager and whether they liked him or not. Ideally, one wanted an Aboriginal person to be heading it; it was very difficult to get. The idea of having someone from that area—people were hesitant about that because if something happened they might get blamed or something. I think we should definitely evaluate it 10 years later.

The CHAIRMAN: What Peter was referring to then was not only the fees, but also the fact that in some of the pools we know in remote areas, we know that children are allowed in unless they have an adult with them supervising them, and the adults will not come. It is hard for us to say, "You do not need to have each parent there", because as soon as you say that, some child is going to have an accident. I was in Brisbane last week and there was a public pool there with a lifeguard and they were not checking people as they were going in to that public pool.

Prof. Lehmann: They were not?

The CHAIRMAN: No. I mean, it was just along the riverbank, so anyone could join in, but there was a lifeguard sitting there keeping an eye on things. How do you tackle that problem of where the pools are safe, there must be someone supervising? I guess you would need to find out the maximum number of children who can go in a pool if you have a lifeguard and how many children it is safe to have per lifeguard. Would that be the way that we would look at that?

Mr P. ABETZ: In the remote communities, it does not work that way I can assure you! Basically what happens is there will be a pool supervisor who is a qualified lifeguard and all that and some days it might be 15 kids in the pool, other times there could be 100 kids in the pool. I am sure that exceeds the normal level, but are you going to say, "Hey, you kids, you can't go in the pool"? It just does not work that way there. The parents out there are not into suing if the kids get hurt; it is a completely different world out there.

The CHAIRMAN: How do we encourage those areas where they are not allowing children in unless they have got parental supervision to do it?

Mr P. ABETZ: They need to employ a supervisor like they do in Warburton. The local shire appoints and employs him and that is what they do.

Prof. Lehmann: There are also other issues, I know. I do not know the exact details, but in Kalgoorlie it is not an issue of access, but there were certain regulations in terms of the kind of swimwear that the kids were to wear at the Oasis and things. That caused a bit of local kerfuffle, because Aboriginal people do not like to wear tight stuff, it is shame and things, so it caused a bit of concern. People have to be more flexible on those things.

The CHAIRMAN: When we had Harvey discussing the issue with us, one of the things he brought to our attention was the diet. When I was a child at school there were as a lot of rickets and at morning tea time children were given a bottle of milk and I think we used to get a marshmallow with our milk.

Mr P. ABETZ: We did not! We got milk but not marshmallows!

[10.50 am]

The CHAIRMAN: Harvey said a piece of fruit every day would make a big difference. So what I am wondering now is, if we were going to say that while children are at school, the school should fund a piece of fruit or something for all the children to have each day, what would it be? What would the best food be? If we were to make some recommendations, would it be that all children should be supplied with an orange, an apple, banana or packet of sultanas, or if you cannot get the fresh fruit, three dried apricots? What would those foods be? When Harvey was saying diet makes such a difference, what can we recommend to the government for those schools in remote areas as a dietary supplement?

Prof. Lehmann: I am not sure how strong the evidence is. I am sure that nutrition has an effect, but I do not know the data very well. Certainly, vitamin A is important and the other nutrients. But I would have thought, basically, any fruit. As you say, if you cannot get the —

The CHAIRMAN: The fresh.

Prof. Lehmann: If you cannot get the orange, then you get your dried apricots or you get your raisins or whatever. And kids really like it because when we go out and do various surveys, we always take fruit and they just go straight for it. They really love it. Ideally fresh fruit is what I would say.

The CHAIRMAN: Ideally fresh. Who would we tap into to ask? If you are saying vitamin A, then —

Prof. Lehmann: Vitamin C; vitamin A is more for eyes and things like that. I really do not know the data, so I would not —

The CHAIRMAN: The experts in that area would be who?

Prof. Lehmann: I would have to look it up. I can look that up, because it would be good for me, too, to see what evidence there is on nutrition and talk to —

The CHAIRMAN: We would very much appreciate if you could send us some supplementary information on that because I think that is —

Prof. Lehmann: There was someone who talked at that otitis media meeting—who was from, I think, Queensland—who presented some work related to giving out fruit to children. It probably relates to all infections. It has certainly looked at vitamin A for respiratory disease and looked at vitamin A for gastro-enteric infections and measles. I think for the enteric infections it is definitely beneficial. There is some evidence for vitamin A. Now it is given as a supplement to children in the Third World at either six or nine months, I think, so there is quite a lot. There is someone else who has been involved in one of those studies who has recently been appointed, so I can check.

The CHAIRMAN: Thank you, we would appreciate that by way of supplementary information.

Would you like to continue, Deborah, before we ask any more questions?

Prof. Lehmann: Yes, I am just trying to think what other thoughts I had. I think the success of any of the programs involves a very close consultation with the community and really close involvement; there has got to be a sense of ownership and not like health workers just be the people who go and pick up the kids et cetera. They have got to be very intimately involved and get their advice on how to get a program working. I presume you have talked to Ken Wyatt because he is —

The CHAIRMAN: We have not.

Prof. Lehmann: He is very passionate on ears. He prepared a program, a DVD, called "Do You Hear What I Hear?" which went to every school, and there was another rerun of it. The other person is someone called Jacobs—it is not Ann Jacobs. But it would definitely be worth talking to Ken.

The CHAIRMAN: We will give him a call, thank you.

If you are saying that Aboriginal children, 40 per cent might have had otitis media then by the age of two months, is it a case of if they have otitis media at two weeks and four weeks and six weeks and eight weeks and they have had four bouts of otitis media that sufficient scarring may be done then that they are going to have hearing problems for life? What is the curve like?

Prof. Lehmann: The earlier it starts, the more likely it is to persist. Really, most of the problem tends to be it does not get better, it just goes on. So it is not like in the non-Indigenous population you will get an acute episode and then it will subside and then you will get another acute episode with pain and things; this tends to be ongoing. There are algorithms. There has been the national guidelines on management of ear disease and we have developed a very simple sort of a flowchart system. I think the other thing is to have a very simple flowchart that says if you get glue ear, which is what it is—fluid in your ear—once, then you follow it up in three months. If it is still there, then give antibiotics. I think that is what the recommendations say.

The CHAIRMAN: Could we ask you to send us that by way of supplementary information? Basically, what you are saying now then is —

Prof. Lehmann: It is in the guidelines; it is the national guidelines.

The CHAIRMAN: And those guidelines say that if a child is identified with an ear problem at two weeks, they should be followed up in three months' time, so we should be asking: how many children were identified at zero to 10 days or at three months and how many of those children, as per the guidelines, were followed up at this time?

Prof. Lehmann: Yes.

The CHAIRMAN: Wonderful! So that is in which guidelines, did you say?

Prof. Lehmann: It is the national Indigenous guidelines—I could send that to you.

The CHAIRMAN: That would be very useful, thank you.

Prof. Lehmann: Those guidelines were totally revised and they came out last year.

Then there is the whole question of how do you get that treatment to them, and often this takes a daily visit to the house. I think that is what it requires, and the groups like NTP—Ngunytju Tjitji Pirni—are starting to do that, to go out and check that it has actually been done. That is the hard part, and the same thing if you have the acute perforation. The first time that acute perforation happens, that is absolutely crucial to catch as quickly as possible because if you cannot catch that, then the hole gets bigger and more chronic and things. So if you can catch that, give the antibiotics and give the drops, that is probably one of the most crucial aspects of the management.

The CHAIRMAN: So after that first perforation, if you get the antibiotics in quickly, does that hole repair itself; or is it once the hole is there, it is there?

Prof. Lehmann: Yes. You might get chronic scarring—in an older person it is called tympanosclerosis—but that may not be affecting the hearing, so you can get a scar or it can be healed totally.

Mr P. ABETZ: There is the treatment when the infection becomes significant. There is bacteria around in the environment for all of us, but for the Indigenous kids, they seem to be more susceptible to getting a major problem with it. What can the family do? Is it a case of washing ears regularly? What are some of the factors that the family can actually do to reduce the likelihood of their children getting ear infections?

[11.00 am]

Prof. Lehmann: I would say to promote hand washing and hand hygiene as much as possible. These things are possible. It is all a little anecdotal. We had some innovative health promotion. One

was a musician who developed with the school kids a musical all about ear disease and how to prevent it and things. Then a child was heard going into a toilet after one of the performances with another one and saying "Go on; you've got to wash your hands." The other kid said, "No, I'm not going to wash my hands." The other one said, "You've got to wash your hands, otherwise you'll get an ear infection." These sorts of things stick. It is all a slow process; nothing is going to happen overnight. People have really enjoyed soap making. It is just constant awareness, I think.

The CHAIRMAN: Before we finish, is there anything that you would like to summarise for us?

Prof. Lehmann: On the one hand, there is the prevention and on the other there is the access to services. Having an ENT visit in the goldfields four times a year, given the burden of disease, is really not adequate. Audiology is a really big problem. We should be training local Aboriginal people to be doing the audiology screening. Through this commonwealth funding, they have been given audiometers and they have been trained with the NACCHO scheme to use them. That should be used. I do not know what the recommendations are for timing, but those should be done between birth and five, when they go to kindy; you cannot just be waiting. I expect comment about the intergenerational issues, as Amanda added here. If the parent has poor hearing, that affects the child.

The CHAIRMAN: Because the parent is not able to communicate so well with the child?

Prof. Lehmann: That affects subsequent children, should we say. If an adult has poor hearing, that affects their educational ability and their subsequent employment, which then leads to all the other issues in their children later on.

The CHAIRMAN: It is through social behaviour.

Prof. Lehmann: Yes. I think that is all.

Mr P. ABETZ: Can I just ask a quick question? On the training of the Indigenous audiologists, how successful has that actually been in terms of getting the tests done in a community? I am aware of family feuds. In one community where they trained an Aboriginal person, because he is from that Aboriginal group and that family is feuding, that other family will not go to the medical centre and all that sort of stuff. How successful has it been? In Warburton, the Aboriginal people actually prefer white people to be the medical people, because everybody can access that then because they are neutral. Have you had any issues with that in your research?

Prof. Lehmann: No. I think certainly at some point with the two Aboriginal organisations, they preferred to go to one rather than the other. I think people are fairly pragmatic actually. They will go where it helps. That is true. In another place outside Kalgoorlie, I think there were some issues about a particular person. She is doing the ear work now. There was a feud within the area. That may not be ideal. You would have to ask them. I do not think there is anything else. I will get you the national guidelines, something about smoking and the effect on the nose lining, and whatever I can on nutrition.

The CHAIRMAN: That would be wonderful.

Prof. Lehmann: It is not too urgent, is it? I am just going overseas for a month next week, but I will see what I can do before next week.

The CHAIRMAN: Lovely. If you are not able to, perhaps you could give us the name of a person to contact to follow up on this, because we actually have only seven sitting weeks left. We have a deadline at the moment to try to get our report finished and signed off on by the committee.

I would like to thank you very much for your evidence before us today. A transcript of this hearing will be forwarded to you for correction of minor errors. Any such corrections must be made and the transcript returned within 10 days of the date of the letter attached to it. If the transcript is not returned within this period, it will be deemed to be correct. New material cannot be added via these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional

information or elaborate on particular points, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence. Deborah, once again, thank you very much for coming in.

Hearing concluded at 11.05 am