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***EVIDENCE OF POOR ORAL AND DENTAL HEALTH –
ACCESS AND WORKFORCE ISSUES:***

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JOHN SPENCER: Thanks very much, John, and thank you to the National Rural Health Alliance for inviting the mouth into this seminar this morning. We're actually extraordinarily grateful for I guess the advocacy and the support that is currently being received by dentistry and the community's oral health by groups such as the Alliance, and I can only hope that with the opportunities that may lie before us over the next 12 months that we can move things forward.

I'm going to present the numbers part of this duo presentation this morning and that sort of fits with what I do and I guess my interests, but I hope that I'm not going to turn you away from the central messages by my presentation of rather a number of graphs about oral health and access to care and also the dental workforce.

I want to start with acknowledging the work by a colleague of my, Judy Stewart, and others in the mid-1990s when they commented on rural and remote dwellers and their access to dental care. Their report indicated that rural and remote dwellers had higher rates of edentulism. That's a word for people who have no natural teeth and therefore higher rates of denture wearing. Rural dwellers were less likely make a dental visits, they're more likely to visit for a dental problem and, when they do visit, they're more likely to receive extractions of teeth and less likely to receive fillings. That was the picture at that stage.

Much of that pattern of oral health and access to dental services seems to be shaped by the mal-distribution of dentists between major cities, the inner and

outer regional areas and remote areas. So the question I want to ask is, given this base in the mid-1990s, what has changed and are there any indications of a way forward? In this presentation I want to talk a little about adults, the oral health of rural dwellers, access to dental care and the dentist labour force, and then I'm going to contrast that with children, their access to dental care, the dental therapist labour force, and I'll finish off with just a comment about the implications.

So starting out with adults, I have to say that right at the moment we have just finished Australia's second national survey of adult oral health and the results for that will be available about next March, maybe towards the end of March next year. So I'm drawing upon data that actually comes from telephone interview surveys that were conducted in 2002, so I'm not going to use clinical indicators as such in this presentation.

This is the percentage of adults who rate their oral health very poor, poor or average, across the remoteness areas that we're all used to seeing comparisons for. What we can see here is there is some indication as you move from the major cities to outer regional areas that there's an increasing percentage of people who would rate their oral health poorly. This is a subjective indicator though and the benchmark against which people are responding here can actually be varying from the expectations of a dweller in a major city against a dweller in outer regional areas.

If we take a slightly more clinical outcome measure, this is an indication of people who have less than 21 teeth. You should reflect that the maximum number you can have as an adult is 32. Many people don't have their wisdom teeth. That might reduce it to 28. This is an indication of the loss of something in the order of let's say six to eight teeth that might trip one into a group of people that have 20 teeth or less. Twenty teeth is often regarded as a bit of a benchmark for an adequate number of teeth for people to be able to I guess go about their normal daily lives, not seriously affected in terms of their ability to eat. It may not seriously affect their appearance if most of the teeth that are lost are posterior teeth and the like.

What we can see here is that there is a differential between major city dwellers and inner regional in particular, and to some extent outer regional dwellers, in the percentage of people who have few of their natural teeth actually remaining. It's a 30 to 40 per cent difference for those to regional areas. This is important because when we studied the impact of poor oral health on people's daily lives, when we actually look at the negative impacts that they experience in terms of the oral health related quality of their life, the number of missing teeth is the simplest and clearest indicator that people will be suffering from negative impacts in terms of the normal functions that they're involved in that use the mouth.

If we just step this one further along, this is this comparison of edentulism among adults in 2002. These are people who have lost all their natural teeth, and you can see that instead of the differential between major city and inner and outer regional being in the order of 30 to 40 per cent, we actually have a differential here that's

sort of 50 to 80 per cent differential. I should I suppose comment on remote. Remote in much of these sorts of data because it's a telephone interview survey, remote actually has some particular biases in who actually gets selected and is in this category. For instance, there is likely to be an under-representation of remote Aboriginal communities and there's likely to be an over-representation of remote communities that might be in fact mining supported communities and the like. So their actual behaviour in these data can be quite abhorrent from one comparison to another.

I wanted to start on tooth loss, because I see tooth loss as sort of the ultimate of dental outcomes. Losing your teeth is in a sense the equivalent to an amputation of a foot for a diabetic. Losing all your teeth is almost the dental equivalent of mortality. This is the ultimate failure in terms of oral health efforts in our community. But tooth loss actually doesn't reflect well the underlying variations in experience of dental disease. This was actually established over two decades ago by Peter Davis, a New Zealand academic who's been in our news for the wrong reasons, it seems to me, but a very fine sociologist and public health academic. Peter Davis established that the variation across social groups in the level of tooth loss, although you must have underlying disease, it didn't reflect variation in underlying disease; rather it reflected treatment preferences in people in the community, it reflected professional norms of practice, and it very much reflected skewed accessibility to services.

I wanted to use that as my entrée into looking at access to services in rural areas. We all know that access reflects three different characteristics. It certainly starts with the available of services, but it extends to the obtainability of those services and then it reflects the character of the service that people actually receive, what I have referred to here as the comprehensiveness of care. So we'll just start out looking at the availability of services. This is the distribution of the dentist workforce in Australia by statistical divisions in 2003. I'm not going to dwell on it at all because although these things are sort of pretty, I find them extraordinarily difficult to use in any sort of practical way. What we can notice is that in the main the darkest areas which have the highest rate of supply of dentists to a 100,000 population base are tucked away in small areas that are concentrated around our major cities. There are some funny sort of results that pop up. One in South Australia is actually out on the Eyre Peninsula and the west coast, as they call it. But what really this reflects is extraordinarily small population bases who just might have attracted and retained several dentists at the point of 2003, and these things can fluctuate markedly from year to year.

I want to first draw our attention to the fact that there is enormous variation across the Australian states and territories in the supply of dentists per hundred thousand population, and we actually have not just an issue about rural and remote locations, but we have issues with states and territories. The state of Tasmania and the Northern Territory, neither has a centre for dental education, neither has an established centre for I guess a program of rural placements of undergraduate dental students and as a result this state and territory face a particular difficulty in

the recruitment of school leavers into dentistry and then the attraction and retention of practitioners back into their state.

If we look at the standard breakdown of the availability of dentists across areas of remoteness, what we can see here is a very clear and obvious gradient where remote areas have around a third the rate of dentists per hundred thousand population than the major cities, outer regional about half the rate of major cities, inner regional about 60 per cent of the rate of our major cities. Although the figures are showing some change, these changes are absolutely minimal in terms of the overall pattern of the distribution of dentists in this country. The availability certainly shapes – that's not the only factor, but it certainly shapes a lot of the issues in terms of the actual obtainability of dental services.

I'm going to present three slides in a row which actually almost need to be sort of summed together mentally as we look at them, because each one of them on their own is sort of an inadequate measure in capturing I guess the obtainability of dental services in rural and remote areas. This is the time since last visit among dentate - these are people who have some natural teeth – adults in 2002. I really want to just draw your attention to the bottom of these stacked bars and the top of the stacked bars, but in general we can see that we go from 59 per cent of adults in major cities reporting that they used dental services within the last 12 months, down to 50 per cent by the time we get to remote areas.

There's also to some extent growth in the percentage of people who report longer intervals since their last dental visit – five years or more, to two to five years' interval between the last dental visit. So it's not a large differential, but certainly it's the start of a pattern of a gradient in terms of access to dental care, whether people had used dental services in the last year. This is the mean number of visits in the last 12 months and we can see the gradient here as we move from the major cities to regional areas to remote areas. We've got a decreasing mean number of dental visits made by dentate adults in the last 12 months.

Another aspect of those visits which is extraordinarily important in terms of the nature of the care that people receive is the reason for the visit. Generally what we do is we divide this rather coarsely into people that report that the reason for their visit was that they were experiencing a problem, and people who report that they were making a check-up visit, a very sort of rough and ready dichotomy that serves the purpose quite well. What you can see here is that overlaid on that variation in people's actual visiting pattern, we now have a variation in the nature of the visit, because we have an increase in the proportion that report their last visit was for a problem, from less than half in the major cities to, by the time we reach remote areas, just under 70 per cent are reporting that their last visit is for a problem.

There's a consequence of the last visit being associated with a problem and the consequence is that if you visit for a problem in general, you can be somewhere between three to five times more likely at any point in the public dental services to receive an extraction of a tooth than if you visit for a check-up to those same

services within the same age groups and generally the same sort of presenting oral health. What we see here is people who received an extraction, dentate adults who visited in the last year, and you can see that by the time we reach the outer regional area there's a small but a meaningful increase in the percentage who report that they received an extraction across the last year.

Now, the important thing to reflect on when we think about these sorts of figures is they capture a very small window of time. Their reference period is generally a year. What we have to keep in mind is that this pattern of services received in the last year is repeated across the lifespan of adults. So there's an accumulation of the effect, the outcome of this, that grows as we follow people from maybe their 30s to their 50s through to their 60s, et cetera. Now, we don't really have the data for that. We have no long-term follow up studies. But you need to be able to reflect that in these snapshots of a short period of time that there is actually a dynamic process going on here that extends across many years of people's life.

I want to contrast this with five to 11 year old children in Australia. This is the picture of five to 11 year olds and the time since the last visit. I've only put the bottom part of what was the stack bar previously for the percentage who have visited within the last 12 months. There are several things we should note about this. Firstly, there's a very high percentage of five to 11 year olds who are reporting they have actually made a visit in the last 12 months. But the second thing to notice here is we don't seem to have any gradient by remoteness area.

So, unlike the situation that we saw for adults, there doesn't seem to be a gradient in this reported time since last dental visit for primary school age children. Nor is there a gradient in the mean number of visits in the last 12 months. I don't think we'll make anything much out of the fact that outer regional reporting the most, that there is a sort of a logical explanation there. It's actually that outer regional being poorer oral health because - if we get time I might show you the slide about the percentage coverage by water fluoridation by major city, inner regional, outer regional and remote, and that actually gives us a fairly ready explanation for this variation in mean number of visits.

But certainly we don't have a gradient of the mean number of visits falling away across these remoteness areas. Nor is there much of a gradient, a little bit - it's a much weaker gradient at least in terms of the reason for last visit being a check-up, which is what I have actually put here. First of all there's a high percentage of children reporting that their last visit was for a check-up, but the gradient across the remoteness categories is not as strong.

Now, let's try and look behind the access figures for five to 11 year olds and try and get an understanding of what might have brought this about. These are the figures on practising dental therapists who work in the school dental services in states and territories, their rate per hundred thousand population by state and territory and for 2000 and 2003. I wanted to simply draw your attention to the fact that there is very marked variation here and that actually indicates a significant oral health issue for Australia anyway and our two most populated

states, New South Wales and Victoria, have very low rates of availability of dental therapists per hundred thousand population, and that's actually reflected in the coverage of the school dental services in those states of the primary school age population.

When we look at dental therapists per hundred thousand population by remoteness area, we have exactly the opposite situation almost than what we saw with the dentist distribution in that inner regional and outer regional actually have higher numbers of dental therapists per hundred thousand people, and remote is higher than major city, or at least around the same sort of territory. So this is an indication that, although I started out with describing a problem, and that's access to dental care among rural adults and the dentist workforce in rural areas, that when we look at five to 11 year old children we don't seem to have the same problem at all. So this gives us a hint to the solutions.

Access to dental care enjoyed by children is evidence that where there's been effective leadership, where there's federal/state funding arrangements and where there's benchmarking and surveillance, we have been able to build programs to achieve better labour force distribution and more equitable access to dental care. So we don't have to be pessimists. We're actually sitting with evidence of what we've been able to achieve in terms of particular target subgroups in the population – children in Australia.

While the use of dental auxiliary and school-based dental care might have been appropriate for children, different solutions will be required for adults, but it's suggested that equally positive outcomes for building adult access to dental care in rural and remote areas could be achieved if dentistry becomes what I would call a full participant in national rural health and labour force initiatives, something which the Alliance wholeheartedly supports, but something which we seem to be struggling to actually achieve in Australia. Thank you very much.
