



TRANSCRIPT OF PROCEEDINGS, E&OE

NATIONAL RURAL HEALTH ALLIANCE INC

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ANDREW PHILLIPS:

Facilitator: Sue McAlpin

SUE McALPIN: I would now like to introduce Andrew Phillips. Andrew is a great friend of the Alliance in the current data that he provides for us, as well as for the wider community. Andrew is a Senior Analyst with the Australian Institute of Health and Welfare where he works in the area of Rural Health. He's a principal author of the Australian Institute of Health and Welfare's Rural, Regional and Remote Health Series, Information Framework and Indicators, A Study of Mortality, A Guide to Remoteness Classifications and Indicators for Health. The Rural Health Program in the Australian Institute of Health and Welfare is funded by the Rural Health and Palliative Care Branch of the Australian Government Department of Health and Ageing.

Andrew has a diverse background in public health epidemiology. He has worked as an epidemiologist in Western New South Wales for a significant period of time and briefly with the divisions of General Practice. So, welcome Andrew. We look forward to your presentation. A lot of the data that Andrew provided for us in the last two days of our seminar has been extremely useful for the lobbying that the Alliance has done with politician Senator Joyce. So we were able to take some very relevant current information and use it effectively, we think. Thanks, Andrew.

ANDREW PHILLIPS: Thank you. Thanks, Sue. Thanks everyone. I'm usually sitting behind a desk playing with a computer and I very rarely speak. And I think Saturday and today is probably the first time I've been wheeled out for quite some time. What I'll try to do is this: give you an idea of where I'm coming from, and that is from a statistical reporting



view. So we look at major data sets, we try to describe what's happening. There's an overview to the country. It largely ignores how people feel, because you can't really do that with stats.

Just a quick look at what is remote, which John has looked at very quickly and some characteristics of remote area populations just to set the scene. Very importantly, looking at the difficulties in reporting for remote health, because when you look at remote health statistics what really strikes you is the lack of information. Even though there are lots of data sets around, the data isn't there in many cases to describe what's happened in remote areas. And if it does there are all sorts of confounders that prevent you from getting a good idea of what is actually happening. And then to look at some selected area statistics, that I think you might find interesting.

If you need to look at some publications and read about what I'm talking about, essentially you can get them free from this site, or if you want to you can purchase hard copies from that site. But they're all free to download.

Remote. Typically we're talking about a very small proportion of the Australian population -
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GORDON: Don't get too far away from the mic.

ANDREW PHILLIPS: Thanks, Gordon. We're talking about a small proportion of the Australian population who live in - they're special for lots of reasons and we'll go into why that is. John has mentioned a number of geographical classifications. Within the last 10 years or so these have - well, this one particularly has been used, that one has been used, and this one is now coming into vogue. John mentioned this publication. If you want some information on those classifications go here www.aihw.gov.au which is our website.

We use the ASGC remoteness classification in our reporting and we're looking particularly at these areas here, which are these white areas here, and also these areas here that are sort of - whatever colour that is. So remote populations, once again, are a small percentage of the population. They can have large indigenous populations, which is important for statistical reporting purposes because high rates, for example, high rates of death or poor health in remote areas, are likely to be strongly influenced by the overall poor health of indigenous people generally.



We have lower average education and income levels. We have different age structures; that's more children, few older people generally in remote areas. We tend to have more males than females—if we look at the non-indigenous population—indigenous population is much more even. We have migration of young adults out of the areas. We have migration of frail elderly out of the areas to seek services. We have peculiar, or special, I should say, difficulties as a result of distances, about the fact you are aggregating populations in small areas and that, in many cases, for example in supplying services, you may need, say, a thousand patients to support one GP, for example. So if you haven't got a thousand it makes it very difficult.

Just quickly looking through those to give you a visual on what those characteristics I've been talking about, here we have major cities populations, a large percentage of the Australian population, and here we have the small percentage of people who live in remote areas. Here we have the percentage of the population in each of these areas who are indigenous. As you see, as you move out to more remote areas it increases quite dramatically. It has a very important effect for remote area health statistics.

Age distribution: this represents the percentage of the population who are in this particular age group. So 6 percent of the population in major cities are in this age group. If you look in remote or very remote areas, it's substantially higher. If you move into the older age groups, you've got a lower percentage of people of older age. This is about income and about education. Here we have major cities where we have - these are rich people, this is very simply put - these are rich people, these are poor people. If we move out to very remote areas, for example, these are the poor people and these are the rich people.

So there are very substantial differences in income and educational level in between these areas, and these have direct influences on health outcomes. These are food prices. As you move into more remote areas food prices tend to increase. These are petrol prices. This is obviously data from a while ago, but as you see, as you move out in more remote areas it increases substantially. This is household crowding. As you move out in more remote areas the percentage of households that are crowded for non-indigenous people doesn't tend to change very much. But for indigenous people it increases quite dramatically, which can make things difficult, just in terms of privacy, for a start, or if for example you've got kids, you want to study or whatever. If you've got lots of people in the house it's more difficult.

Now, moving on to some of the difficulties in reporting for remote areas. The main difficulties are we have either a lack of, or the complete absence of data in some cases. We have difficulty with the accuracy of the identification of indigenous people and



non-indigenous people, so it makes it difficult to decide are the issues because of remoteness or are they because of indigenous health issues. And to be able to differentiate this is really important, because you want to know where to spend the money.

You've got different service delivery models. So, for example, if you want to compare the number of primary care for, say, doctors who are going to provide primary care, in major cities most of those services would be provided by GPs. If you move into more remote areas then a substantial amount of that would be provided by salaried doctors, for example, working for hospitals and not necessarily charging Medicare. So you've got to be careful how you look at the data in those areas.

And, finally, we have what looks like a substantial effect because older people who are in poorer health may tend to choose to move - or may not be able to continue living in more remote areas. They would tend to move to less remote areas where they can access services. Now, if you have migration of the frail aged from remote areas and then you calculate, for example, death rates in that area, things can look quite rosy, because the people who have got the greatest chance of dying have tended to move, leaving the more robust individuals in remote areas, and I'll illustrate this a little bit later on.

To try and give you some idea of the difficulties in reporting for remote areas I've taken the information framework we developed previously, and I've gone through and said, "Okay, in which areas do we have problems with data availability, indigenous identifier, service delivery and migration of the aged?" And there are a few tables here just to give you some idea of the sorts of issues. In these areas here we have from an Australian prospective no information on the prevalence of chronic disease, injury, mental health issues, these sorts of things for people who live in remote areas.

We can report on these things for Australia generally, and we can usually report on these things for regional areas, but when it comes to remote areas, for example in these cases here, a lot of this data - or this data particularly comes from the ABS National Health Survey. And sampling in remote areas is - there is very little sampling in remote areas because of the cost and because to get a picture for Australia you tend to sample mainly in cities and regional areas, but not in these areas.

A lot of these indicators here would be populated from the census and there you've got representation from all over the country, including remote areas, so that's not too bad. These are qualified "okays"; so is that. But you do have some problems, for example, here with -



we don't have good information on whether, for example, a mother is indigenous or non-indigenous. That's recorded, but it's not necessarily very reliable. And so there is some difficulty in being able to compare across regions that rate of fertility for Indigenous and non-Indigenous women.

Smoking, drinking, all of these things here are important for health outcomes. And the data doesn't exist for remote areas. This is getting on to more service provision. And we have a lot of data that is available, but there are lots of difficulties in being able to make valid comparisons between areas, and when we do so we need to qualify that quite strongly. And I think this is almost the last slide for this particular group. Similarly, once again, this is more service provision information and, as you can see there, we've got quite a bit of data, certainly at a national level and we can report for remote areas, but a lot of the difficulties out here would make the interpretation of that information difficult.

Now, having given you some of the concerns we've got about reporting for remote areas and the fact there's a lot of issues where we just don't have information, I'll now give you some selected statistics, those that I think are probably - given that I can only give you a few in the time - those are the most important. Probably the most robust data source we've got is the mortality data set, which is taken from death certificates. Pretty well every death in Australia is recorded and the quality of the indigenous identifier in that data set is considered to be about 60 per cent accurate. So it's not particularly good. In some areas we think it actually gets quite good, and we think that it's actually quite good in these areas here where indigenous people are a substantial portion of the population.

But the bottom line here is that if we take the death rate in major cities as one, the death rate of indigenous people in Australia is a bit over three. The death rate of the total population, which is this white column here - and these are regional areas here - is a little bit higher. And it increases as you move into more remote areas. Now, if you subtract out the indigenous people in the data, what you have here is this is the apparent death rate for non-indigenous people in remote and very remote areas.

Now, we would have liked to have reported for indigenous people across these areas, but the problem with the identifier is that what we would end up with is something which we think would be quite misleading; we would draw invalid conclusions from it. This is still a little bit hairy in that we can't be sure exactly where this point is, but it appears that this substantial increase you get as you move to more remote areas is largely a consequence of higher indigenous mortality. Some of it may well be due to higher mortality amongst non-



indigenous people, too. The same pattern is repeated for females.

This is a bit busy. This is another way of looking at that graph. These are the data from that. This bottom line here illustrates the increase in death rate as you move into more remote areas. Down this side we have age groups. You can see amongst the 15 to 24 year olds we've got some substantially high death rates for people generally. If we look in the remote and very remote columns we've got very, very high death rates there. In very remote areas you're looking at two to three times the death rate for people who live in major cities. A similar pattern for females.

This is the same sort of deal, except we've now split the data into indigenous and non-indigenous. Once again, we can't report for regional areas for indigenous people, but we can for a reasonable amount of safety for non-indigenous people. And you can see here that a lot of those high rates have gone. Some of them are still pretty high there and here and here and here and here. For indigenous people you've got, especially these age groups here, terribly high death rates. The other interesting thing is in this age group here, 75 plus, you've actually got lower death rates for non-indigenous people who live in those areas. We think that's largely a consequence of migration to areas where they can get access to services. So, in fact, the death rates in these less remote areas would be elevated because these people have moved

And what's causing those high death rates? Yesterday I went through some tables that we had and I generated this little table here. This gives you some idea. If you could reduce the number of deaths in remote areas by that number, then the death rate in remote areas would be exactly the same as it would be in major cities. And this number here is the number of deaths - these deaths as due to these particular causes. If you look at it percentage-wise, 33 per cent is due to what we call "other causes", which are "other than injury, respiratory disease, circularly disease and cancers".

Cancers contribute very little to the excess death - I mean, they're responsible for 20 or 30 per cent of all deaths, but in remote areas they might only be responsible for, say, 32 per cent, just a little bit more. So it's not a major cause for the higher death rates here. Ischaemic heart - sorry, all circularly diseases are a substantial cause. So is injury. Thirty per cent of this extra death is due to injury.

Quite a bit of that is motor vehicle accidents. Some is suicide. A large amount is other injury. A lot of that could be farm injury, which is very hard to define and very hard for us to



describe. But that will give you some idea of the sorts of reasons why the death rates are higher. This gives you just a visual on the rates of death due to, for example, motor vehicle accidents. You can see it climbs quite rapidly, and in remote areas it's particularly high.

This is deaths for males, suicide and accidental shooting. I guess the more interesting one is this one here. This is major cities, regional areas, suicide rate is a bit higher. In remote areas it goes up, but that appears to be largely the result of suicide of indigenous males. For non-indigenous it's difficult to say exactly what is it in those areas, but it could be that it's either similar to or slightly lower than the rate in regional areas. This is where it would be so wonderful to have really good indigenous identification, so that for both groups you would be able to describe what's going on.

Immunisation. This is Australian Childhood Immunisation Register data. We have good data for the whole of Australia. If we look out of this area here we've got - if you look at the grey line particularly, that's the immunisation rate for 12 to 27 month olds. We have a roughly similar rate of immunisation. So that's looking pretty healthy. This is the rate of Pertussis notification or whooping cough notification. And the blue line is major cities. The black line, if you like, at the top which bounces up and down a fair bit, is the remote area Pertussis notification rate. 1997 was an epidemic year. We had a lot of Pertussis around. You can see though pretty well all the time the rate of notification in remote areas is quite a bit higher, round about roughly double what it is in major cities.

And the thing here is, you might think why is this, because we've got similar immunisation rates. Well, a lot of this is amongst teenagers as opposed to young children, and also there may be an effect of if you've got a small population in a town, for example, a relatively small population, a case of Pertussis comes in, that community may be more for the disease spreading than another population where you've had lots of opportunity for people to catch the bug.

This is the percentage of water supplies that are fluoridated. Major cities you've got 80 per cent. Move into regional areas it drops. Remote areas it is lower still. This is the average number of decayed, missing and filled teeth for 6 and 12 year old children. This data is taken from school dentists services, but apparently you have to pay a little bit of money to access this service. So I'm suspecting that the people who took part in these areas were a little bit wealthier than people who didn't take part in those areas. So it may be that you'd expect that these averages, it would be a little bit higher in reality.



But nonetheless, as you move into more remote areas there is some substantial evidence that numbers of decayed, missing and filled teeth in children is higher and oral health generally is poorer. Also you've got - dentists are about half as prevalent in rural and, we think, remote areas. This is the percentage of kids who go onto university. Remote areas very low, and there are lots of reasons for that. It's not that they're - they're definitely not less capable, but perhaps there are fewer opportunities locally and it's more difficult financially. This applies also to the health sector where we have - this represents the rate at which school kids go into dentistry. And as you can see in major cities there is quite a high rate. If you're from anywhere else then the rate is quite low.

This is school students starting medical degrees. And as you can see, back here before 2000, a similar sort of pattern. The interesting thing is here in '99 when the government introduced some substantial incentives for subsidies or some financial encouragement for kids to go on and do medicine, we got a really substantial increase, so looking pretty fantastic.

This is the comparison of the fertility rate, the number of births that occur for young women - well, for women of all ages actually. We have four rows for four age groups. Teenage women—we have very high rates of birth in remote areas. As women in these areas become older they tend to have fewer children, compared to what they'd have in major cities. Overall you have a higher fertility rate in remote areas.

This compares the rate of death due to coronary heart disease. That's the top line. As you can see, in remote areas it's high, but in very remote areas it's even higher. The bottom two lines are the rate of coronary artery by-pass graft and the rate of angioplasty for people who live in those areas. So people who live in very remote areas have coronary angioplasty at roughly point six the rate that people in major cities have that procedure. If you look at hospital procedures, generally, we've got all sorts here. We've got appendectomy and some of them I can't even pronounce - hip replacement, lens insertion, myringotomy and so on, but pretty well all the way through remote and very remote areas the rate at which people have those procedures is lower than the rate at which they have them in major cities.

Now this one, the top line tells you how many doctors there are - how many GPs there are and primary care - salaried hospital doctors who perform primary care services. The second line tells you, if you compare those to the population living in those areas, what's the ratio. So in major cities we have 118 per 100,000 population. In very remote areas we have 81 per 100,000 population. So it's lower. If we look at how many expected consultations we might have based on the age and sex of the populations in those areas, bearing in mind that people in



remote areas are younger, then things even up a little bit more. None of this takes into consideration need because we don't know how to build that into the model at this stage.

If we look at full-time equivalents, so assuming every doctor works 40 hours or whatever, and have a look at how many hours they do work, so say a doctor works 60 hours, that's one and a half FTEs, so this is how many FTEs we have here, and that evens things up a bit more. So by working hard and longer hours they can sort of balance things up a little bit. There are lots of different ways of looking at your supply of doctors or any other health profession, and it all depends on what you want to see or show, I suppose.

This gives you an idea of the specialists who work in each area. Now, you might not expect there to be many psychiatrists working in small rural areas, because they need a large patient load to keep themselves going. But you would expect in regional areas that you would have a substantial supply of obstetricians, for example.

Prevalence of pharmacists. A similar sort of picture. And I think it's probably about time to wrap up. This gives you some idea of the - we have lower supply of health workers in regional and particularly in remote areas. And so, to try and balance that, I think on the ground people would think that they're working harder and longer hours, and the statistics show that they are, in fact, working longer hours. So for GPs in major cities, 14 per cent work more than 60 hours a week. In remote areas you're talking about 27 to 40 per cent are working more than 60 hours. Hospital non-specialist doctors, so they're basically operating in a sort of primary care role a lot of time, a similar sort of story. They're working longer hours—and some of them may want to work longer hours, but some of them may not. And one would assume that that would assist with a certain amount of burnout or desire to leave and go somewhere where it's a bit easier.

Registered nurses, a similar story. Physiotherapists work longer hours in remote areas, and pharmacists, also.

And I think that's pretty well it, except just to remind you that for many important issues in remote areas, we just don't have the information. It doesn't exist. There is no data source to go to, to get that information, and if does exist, then there are a number of difficulties with the data because of either poor indigenous identification in the data sets, or because of different models of service delivery, it's really difficult to say what's going on. Anyway, that's it.

Thank you.