

CHO SEMINAR #5 – September 2007

CHO September 5 Research and Training for Public Health

Presenters and their subjects:

“Financing Australian Universities – implications for the health workforce”

Ms Angela Magarry, Director, Policy and Analysis, Universities Australia,
and

“The new NHMRC”

Professor Warwick Anderson, Chief Executive Officer, National Health
and Medical Research Council.

Warwick Anderson

I am going to try and do three things. First I'll talk a little bit about the changes that have occurred to the NHMRC with the revision of the Act in 2006. Then I'll discuss research and at the end talk about a new program that I am trying to introduce to the NHMRC called policy and practice.

So although the NHMRC is 71 years old and hasn't changed the name throughout that period, which I am very pleased about personally, from 1 July 2006 we became an independent agency – I arrived also about that time. We're outside the Department of Health, but still within the Health and Ageing portfolio. The Act also changed the accountabilities and responsibilities for the Chief Executive Officer. And then nine months later we incorporated into NHMRC the National Institute of Clinical Studies down in Melbourne.

The objects of NHMRC's new Act are to: raise the standard of individual and public health throughout Australia, foster the development of consistent health standards between the various States and Territories, foster medical research and training and public health research and training throughout Australia and foster consideration of ethical issues relating to health. They are actually the same as in the old Act, but most people know us because of the third object – fostering medical research and training and public health research and training throughout Australia. That gets a pile of money and therefore makes us popular in certain quarters.

But really NHMRC was established to do a whole lot more than that. I was really keen to be the CEO because I felt that the first two objectives in particular offered incredible opportunities to improve health and bring all that evidence that comes from research to help policy formulation and improve clinical practice.

Then of course we also are meant to foster ethical issues. I am not going to say anything more about that except that it was in my first year in this job – it has been fifteen months now –

that Senator Kay Patterson decided she was going to introduce a Private Member's Bill to update the prevention of cloning and stem cell legislation. That did preoccupy us a fair bit with ethical issues for six months or so but I think that's behind us now.

Our new structure will be familiar to anyone familiar with the work of John Uhrig, the South Australian businessman appointed by the Prime Minister in 2002 to head a review of the corporate governance of statutory authorities. This structure applies to the Australian Research Council as well as for NHMRC and a number of other bodies as well. The idea was to make the chief executive of statutory bodies directly accountable to government rather than accountable to a board that really wasn't accountable to anybody. That's the argument behind the changes. So in the new NHMRC the CEO has a very powerful role. I report directly to the Minister and I receive advice from Council rather than Council being my boss.

NHMRC also has a number of so-called principal committees, two of which are in the legislation - the Research Committee to advise on research expenditure and the Australian Health Ethics Committee to advise on ethics. We also have a National Health Committee which takes an overall view - it is concentrating now on mental health and obesity. Then we have a Human Genetics Advisory Committee, which is trying to bring Australia a bit more up to date with the effects that genetics is having on health and health administration. Finally there's the Licensing Committee that issues licenses for human embryos for research or for cloning under the new legislation.

The Government's expectation of NHMRC, or more broadly the research sector, comes from the 1999 Peter Wills report into health and medical research, which was reinforced by the John Grant committee two years ago. It's known as the 'virtuous cycle'. The idea is that Government invests in research, researchers and research organisations create new knowledge, and this produces outcomes that generate wealth and improve health care and this makes for healthier Australians. And if we have healthier Australians, we have a more efficient system and new industries paying tax so the government has more money to invest, and so it goes on.

The new Act requires the CEO to come up with a Strategic Plan. Under the Uhrig reforms the Minister involved also publishes a statement of expectation to me or the head of ARC and we are required within a month to respond. These are public documents. You can see them on our website. The Strategic Plan sets up five main objectives: to fund the best and most relevant research, to improve the evidence base for health policy and practice, to pursue high ethical standards and fourthly, to generate increased investment in research - in which we have a role of encouraging business, health departments and certainly the charitable sector to increase their investment in research. We are working actively to that end. Objective Five is to build a better organisation itself.

One of the real challenges for the CEO in creating the Strategic Plan is having to identify the major health issues likely to arise during the triennium. Just think about that for a moment. You might think I would require a crystal ball. Something we don't even know about is about to happen. Such prediction is impossible. Or is it? Most things we would logically predict are actually already happening in health. They just get worse or better. So I have interpreted that challenge fairly liberally. The NHMRC Act also requires the CEO to identify a national strategy for health and medical research. We haven't had one before really, other than to fund more good research. So all this is part of a longer term vision called for in the CEO's

strategic plan. By the end of this triennium we will have developed a new strategic intent for NHMRC. It's under very active discussion at the moment.

So, identifying the areas, we have taken three slices: national health issues, major health issues during the triennium and NHMRC identified emerging health issues. COAG has identified 12 national health issues: arthritis and musculoskeletal conditions, asthma, cancer and cancer prevention, cardiovascular health, diabetes, health workforce, influenza pandemic, indigenous health, injury prevention, mental illness, stem cell research and water quality. Some are big, such as cancer and cancer prevention and cardiovascular health. Some are smaller, but nevertheless all are on government wavelengths. And if we are not responsive to what government wants out of research then, well, what are we doing? I should mention in that context that NHMRC is not a Commonwealth body, it is actually a national body so it has the Chief Medical Officers of each State and Territory, including Paul Dugdale of the ACT, on Council and although the money comes from the Commonwealth Government, we do feel a special responsibility to work with all the States and Territories.

Among the major health issues during the triennium we see obesity, depression, dementia and addiction. Probably the most controversial has been complementary alternative medicines, but as I point out to people, individuals spend more money - of their own money - on complementary medicine than we spend on the PBS with taxpayers' money, so such medicines are a very big part of the health scene in this country.

Then come NHMRC-identified emerging health issues. There are nine of them: genetic testing, health disasters, water quality, regenerative medicine, public confidence in research, nanotechnology, new food technologies and global health. These are all with us now, but some are starting to become well developed. We do worry about the potential for disasters caused by Avian flu or terrorism, about the things that genetics can now tell us or mislead us about our own health, about drinking 'sewerage' - as one of the Premiers said recently - even about new food technologies. Everybody in the private sector and indeed at CSIRO are working on ways to make us healthy through reengineering food. I won't say any more about global health, but we are working with a number of the very big charitable funding bodies that are interested in the health of the poorest of the poor and are looking to see what role Australia should play there.

Now, what about our role in supporting health research? There is a common view of NHMRC that applicants for our research grants are 'not unwelcome'. They feel they are not really very welcome and they never know what we are going to decide. But we are trying to do our best.

We are a very different organisation from the Australian Research Council. We have 130 administering institutions, not just the 39 universities, but a whole pile of institutes and indeed community health centres and so on. We have always taken the view that we have a special responsibility to develop the health research workforce, quite apart from what happens in the university sector. Having said that, universities are overwhelmingly where our research money goes.

We are trying to build capacity and develop careers across the health spectrum - biomedical research, clinical research, public health research and health services research. We also fund a number of specific activities around population and health services to the tune of \$23.2 million. We provide \$4.8 million for practitioner fellowship - that helps clinicians who want

to work in delivering health care half the time and want to do internationally competitive research the other half time. Our three big funding support schemes are our program grants, which attract \$130.7 million, project grants – our biggest funding area with \$270 million - and research fellowships, which are worth \$71 million. These funds are for the top researchers in Australia. These are for senior level C and above equivalents in the academic system, and provide support for people in a university or an institute so they can spend all their time on research – they're a terrific bunch of people.

To do all this we have had a significant increase in expenditure. We had less than \$180 million at the turn of the century and now, in the 2006-07 financial year, we have \$495.9 million - nearly half a billion. It is by any means an incredible increase in funding and those of us in medical research know that there has been a lot of hoo-haa around the doubling of National Institutes of Health in the US but our increases have been greater. Of course it comes off a smaller base. But if you picture a graph portraying our expenditure as a proportion of total government science and innovation funding it shows that the support by this government for health and medical research has been very strong indeed.

We spread our funding money across three main areas. Infrastructure support is mainly for bio-banks or data linkage or those sorts of things. People support is for our fellowships and scholarships and so on and then comes our support for research programs and projects. The proportion of funding has been changing over the past seven years. We have been increasing our direct support for salaries, fellowships, scholarships, research fellowships and so on more quickly as a percentage (they have increased five fold from \$22 million to \$105 million) than our support of research (which has gone from \$156 million to \$364 million). The increase in funding we had in the 2006 budget specifically said that it must be for the support of research. You will see those two things change in the coming years.

Where does the money go? Well, mostly to Victoria, which gets more than 40%. The thing about this funding is the remarkable steadiness over the years since 2000. While funding has gone up three and a half times since then, the proportion between States has hardly changed. The ACT of course is low and goes to the universities only and the ANU's medical school is still new. It is the universities with the well-established medical schools which get the majority of our funding. I think this is just. I received my PhD from the University of Adelaide and I think South Australia needs to think about its efforts to attract funding because it is the only State that has had reduced funding between 2000 and 2007.

Most of the funding, as I said, goes to universities – 74%. Yet if you read the daily papers this might come as a complete surprise because the medical research institutes – the Garvan and the Walter and Eliza Hall Institute and so on – which are fantastic at boasting about what they do (and they are terrific, especially those two), only receive 24% of all our funding. A breakdown in funding shows hospitals get 1%. That is misleading because of course all hospital-based research will be administered through a university. At Monash, for example, the Department of Medicine at Monash Medical Centre, and the Alfred Hospital of course, will show up as funding in the university sector. In that sector there are 10 major institutions but that is not the total amount, they are just the usual suspects. There are many other smaller institutions that are funded. There are not many surprises in the top 10. The University of Melbourne with nearly \$72 million is now out in front of Sydney (with \$57 million) and then comes Monash with nearly \$50 million. So two of the top three universities are from Victoria, and then if you add in the WEHI (\$27 million), you can see why the funding for Victoria looks so big.

If I break down our funding by what it is about, rather than who does it, we will find out what are the major national research priority areas. Most funding goes to cancer and cardiovascular disease, which is fairly appropriate. They are the two big burdens of disease. Then come mental illness, diabetes, asthma, arthritis and indigenous health.

We have a range of schemes to foster the growth capacity in indigenous health as well as fund research in that area. All our grants have been not only through our peer review system but through a community panel that has agreed these really are indigenous health research projects, not just something that might affect Aboriginal and Torres Strait Island people. Our aim is to spend 5% of our expenditure on indigenous health. That is twice the population burden and we currently spend 4.6%.

If we look at NHMRC funding as basic science versus public research then again between 2000 and 2007 all areas are increased. The biggest single increase interestingly is in clinical research (from \$38 million to \$169 million). I am personally a bit proud of that because a number of the vehicles that successfully received funding came through the research committee when I chaired it.

What sort of workforce do we support? We figure there are around 7000 Australians on our grants, most of them full time, either with a fellowship from us or with the so-called Personnel Support Package on one of our grants. There's also a small proportion of part time people. There are differences in gender in terms of who we support. But it bounces around, sometimes men do better than women, sometimes women do better than men. Over a period of time the success rate for the two genders is almost identical, which is a great relief and, if anything, at the more junior levels women are achieving a better success rate than men. But it is very variable between years.

We do put NHMRC funded research to rigorous independent review about its impact citations every five years. We will be doing another one next year and it looks pretty good. We have figures which show, depending on the field, the number of expected citations as against the actual citations per publication. Considering 50% of publications are from the US, we are doing very well internationally.

The other pleasing thing is that the number of applications to us for funding that list patents as part of their track record has been growing remarkably since the Wills Review. The number with patents is approaching 40% of all our applications. So despite what people sometimes say out there, researchers are really looking for opportunities to commercialise their research.

I am going to finish up by looking at how we get the research and fund it, to how research should be helping make us healthier and provide a better health system. As I said earlier, we have set aside a fifth of our effort, actually it's probably more than that, into this area in the current Strategic Plan. Our aim is to help by working in partnership with those who work in clinical practice leadership, and in the formulation of policy, to see if we can help move more of the research findings into the system. We have created our own branch within my organisation. We are addressing five issues out of our Strategic Plan as priority areas. All of them are rather challenging issues and they all involve huge expenditure by the health system. Further, we are making priority partnerships with the Department of Health and

Ageing and States and Territories. We are starting off with Government, but we hope to do this also with the charitable sector.

So, that's it and thanks for listening.

Ends...