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President's Report

The articles in this edition of *Dialogue* and two recent events have provoked me to reflect on the role of statistics and indicators in my former work as Director for Education at the Organisation for Economic Policy and Development (OECD) and my current work as Chair of the Board of the Australian Curriculum, Assessment and Reporting Authority (ACARA).

One of the recent events was collection of Australia's 2011 Census. It provided a good reminder of how one of the nation's most important databases is maintained. The other was a small, high-level *Workshop to Enhance the National Statistical System* convened on 17-18 August 2011 by the COAG Reform Council and the Australian Statistics Advisory Council. It considered the needs of a broad range of policies, including economic, health, education and environment.



The collection and publication of internationally comparable statistics and indicators is a major emphasis in all of OECD's work. For a long period, the OECD's education statistics and indicators focused primarily on inputs including funds and a range of inputs that the funds provide such as teaching staff. Outcome measures were generally limited to participation and graduation rates through various levels of education and employment and unemployment rates by level of education.

In developing indicators it is important not to let the perfect be the enemy of the good but it is important to improve the validity and reliability of the indicators if they are to be put to serious use. Publishing with limited coverage, as with empty cells in international tables for countries unable or unwilling to provide the data typically leads quite rapidly to improved coverage. Whether to publish and use indicators that are in some ways inadequate is a less straightforward matter but, if the data satisfy reasonable validity and reliability requirements, it is often best to publish and then to improve.

Indicators of human capital provide a good example. The initial indicator was the number of years of formal education completed, called 'educational attainment'. It requires the assumption that a given number of years of education is equivalent regardless of the country or the type of institution in which the education was completed. In the late 1990s, the OECD resolved to move beyond this indicator by collecting information on the quality of education. Through the Program for International Student Assessment (PISA), the OECD is measuring the performances of 15-year-olds in reading, mathematics and science on a three-yearly cycle that began in 2000. The OECD's work built on national work in a number of member countries, including Australia, and on the work of an international non-governmental organisation, the International Association for the Evaluation of Educational Achievement (IEA), that had been collecting such data in a range of subject areas since 1959. (See www.iea.nl.)

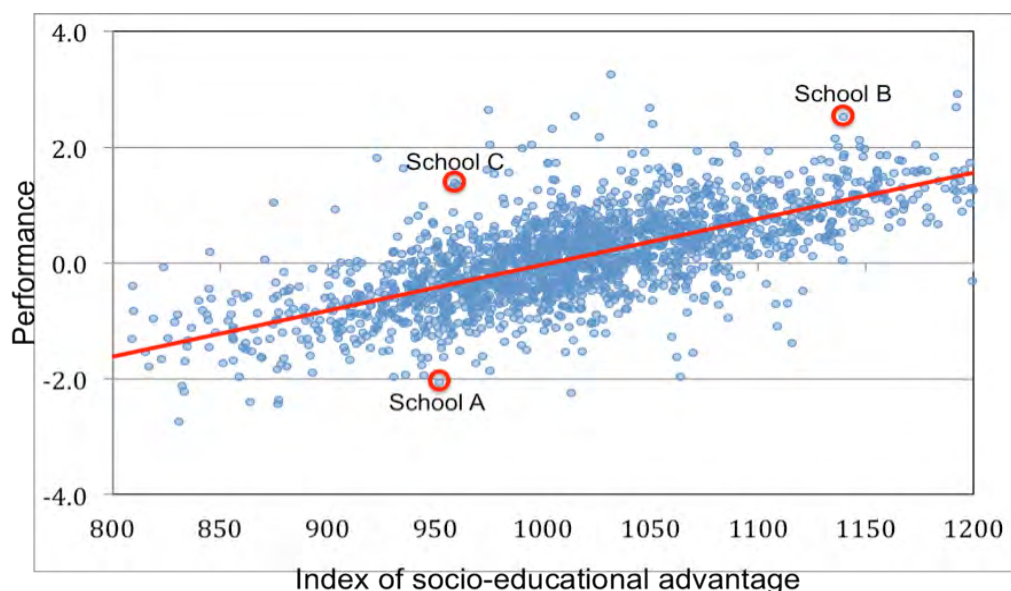
With the initial indicator, 'educational attainment', many investigations have shown the importance of human capital. OECD's analysis of factors that might account for the differences in rates of economic growth among OECD countries in the 1990s examined the effects of investment share, human capital (measured as educational attainment), population growth, variation of inflation, size of the government sector and trade exposure. Only changes in human capital and trade exposure accounted consistently for the differences in economic growth¹.

Investigations of the relationship between human capital and economic growth that use an indicator of the quality of education reveal a much stronger link than those found using educational attainment as the indicator. Hanushek and others have established this using international data on student achievement from the IEA and OECD/PISA surveys as the measure of quality^{2 3 4}.

Moving from an indicator of quantity to an indicator of quality is just a first step. Quality measures can be improved. In the first OECD/PISA survey in 2000, reading was the main domain, with more students' time taken in assessments of it than either mathematics or science. In 2003, mathematics was the main domain for assessment and reading and science were minor domains. That provided the opportunity to conceptualise the mathematics performance domain more fully than for the 2000 survey, with the consequences that the 2003 science achievement scale cannot be linked to the 2000 scale and that the time series for mathematics now begins with the 2003 data. In a similar way, though science performance was assessed in 2000 and 2003, a new scale was introduced in 2006 when science was the major domain of assessment. The 2000 mathematics assessments and the 2000 and 2003 science assessments contributed to the transformation in international education policy discussion wrought by PISA 2000 but there was no sense that they should be preserved in aspic to achieve a longer time series when the opportunity came for the measures to be improved.

The OECD/PISA surveys also collect information on students' social backgrounds. In all countries there is a relationship between social background and educational achievement with more socially advantaged students generally performing at a higher level than less socially advantaged students. The 'social gradient' – the steepness of the regression line for this kind of relationship – is, however, not the same in all countries. Australia's social gradient is significantly steeper than that for the OECD as a whole while those for Finland, Canada, Korea and Japan are significantly less steep⁵. Australia almost matches these countries in quality so Australia's challenge is not only to close that quality gap but also to match these others in equity by achieving a less steep social gradient.

One purpose of the *My School* website developed by the Australian Curriculum, Assessment and Reporting Authority is to provide a basis for reducing the impact of differences in students' social backgrounds on educational achievement in Australia. In *My School*, the current measures of quality of outcomes are scores on the National Assessment Program: Literacy and Numeracy (NAPLAN) tests. The measure of social background is provided by an index of community socio-educational advantage (ICSEA) which is based on parents' education and occupation. The relationship at the school level between ICSEA and NAPLAN results is shown in the figure below:



ICSEAs have been set with a mean of 1000 and a standard deviation of 100. The overall distribution is somewhat skewed. The scale shown in Figure 1 is a little truncated. There are 75 schools with ICSEAs in the range below 800, down to 548. They are mostly small, remote schools for indigenous students. The truncation in the display at 1200 excludes only 13 schools with ICSEAs from 1201 to 1233. The regression line shown in Figure 1 is for the full data set.

Schools above the regression line in Figure 1 can be said to have NAPLAN achievements better than could have been expected on the basis of their ICSEAs and so to have added more value than could have been expected. Those below the line could be said to have NAPLAN achievements worse than could have been expected on the basis of their ICSEAs and so to have added less value than could have been expected.

Deviations from the regression line are sometimes used as indicators of 'value-added' with the implication that those well above the regression line show how much might be achieved and can serve as models for improvement for those well below the regression line.

By that logic both schools B and C with positive deviations would be identified as schools from which school A with a negative deviation might learn. Basing an index on deviations alone obscures the fact that school B has students from a much more advantaged social background than the students in school A. Telling staff in school A that they might learn from school B invites the rejoinder that school A's superior achievements reflect its students' more advantaged social backgrounds, regardless of what the regression analysis might show. Comparison of school A with school C is much more telling and potentially helpful. The fact that school C achieves much better results than school A with students from similar social backgrounds denies school A the opportunity to claim that its performance is an inevitable consequence of the social backgrounds of its students. Comparison with school C is challenging but fair and opens the possibility of school A seeking to learn from school C about more effective policies and practices that it might implement. The *My School* website (www.myschool.edu.au) gives each school a comparison with the 30 schools immediately above and the 30 immediately below it on the ICSEA scale.

Central to the value of these comparisons is the validity of the claim that the 60 comparison schools do deal with students from similar backgrounds. For the first version of *My School* information on parents' education and occupation was obtained indirectly from Census data. Using the relatively small (around 250 households) and relatively homogeneous Census Collection Districts, the average education and occupation data for adults in a district were assigned to all students whose home address was in the district. This requires the assumption that students from the district who attend non-government schools and those who attend government schools have essentially the same social backgrounds. If they do not, the strategy falls foul of the 'ecological fallacy', which applies when the characteristics of groups may not appropriately be attributed to individual members of the group.

For the second version of *My School*, direct information on the actual education and occupations of students' own parents was obtained for more than 90 per cent of students. Compared with the ICSEAs calculated from Census Collection District data, these direct data generated ICSEAs that were generally lower for government schools, generally higher for independent schools and generally marginally higher for Catholic schools. The differences clearly confirm that the ICSEAs based on Census Collection District data had fallen foul of the ecological fallacy.

The two ICSEA scales are highly correlated for the 9500 schools in Australia but the systematic differences in values for schools of different types support the use of the one based on direct parent data. As further evidence for its superiority, it accounts for about 78 per cent of the variance in schools' mean performances on NAPLAN while the ICSEA scale based on Census Collection District data accounts for around 68 per cent.

The change in the basis of derivation of ICSEA values meant that for each school the group of 60 other schools with students from similar social backgrounds was different on the second occasion from the one used on the first occasion. The groupings will be more stable in the future, altering only as the demography of students in the schools changes. This is another example of abandoning consistency over time for improvement.

While all of this points clearly to the advantage of using the ICSEA scale based on parent information, there are questions that need to be considered about the quality of the data obtained from parents. The data are obtained in self-reports from parents and recorded direct by parents or by school staff on

the basis of interviews of parents. Census data are self-report data too, of course, but they are collected in different circumstances and may be more valid and reliable.

The data on parents are collected when students are first enrolled in school so all of the data used in *My School* to date have been collected before their use in creating ICSEA was even planned. Now that use is known, there is always a risk that there could be some gaming of the system in future data collections.

The solution might be to develop new ways of gathering the information from parents, for example having it done by a third-party agency independent of the school and of the Australian Curriculum, Assessment and Reporting Authority.

The need for change can also arise if the conditions of data collection threaten the validity of the data. Responses can be biased by knowledge of the planned use of the data. Responses can be shaped by the data collection itself. Asking individuals about their attitudes can alter their attitudes if they are provoked by the question to reflect in new ways on the issue behind the question. Webb, Campbell & Schwartz⁶ described such measures as 'reactive' and proposed the careful selection of non-reactive measures instead. In an earlier edition⁷ they described the non-reactive measures as unobtrusive and provided a wonderful series of examples of unobtrusive measures such as the rate of replacement of floor covering in front of museum exhibits as an indicator of popularity and a count of empty containers coming out the back door in the garbage rather than questions asked of residents at the front door to establish alcohol consumption.

In the development and use of indicators, the competing needs for consistency and improvement will always be in tension. Longer time series are valuable but so too is improved validity.

Indicators and the statistics behind them tell only part of the story. They can represent a state of affairs. They can illustrate trends over time. They can suggest further questions to be explored but they cannot capture the richness of human behaviour and social interactions. Nor can they provide explanations of causes for correlations they might reveal. For that we need qualitative data as well and a rich array of social research methodologies.

Multidisciplinary collaboration is the best protection against the blinkered view of the world that can be imposed by one's preferred methodology. The Academy seeks to sponsor that within the social sciences and, through collaboration with the other Academies, on a broader scale as well.

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Editor's note

In this issue of *Dialogue* we are pleased to bring you Linda Butler's incisive reflections on the ERA and its future as a fitting follow-up to Andrew Wells' piece in the previous issue. Along with the regular updates on the Academy's varied endeavours, we reproduce Kay Anderson's 2010 Fay Gale lecture, a discursive analysis of conceptions of race, culture and nature in Australia's history which in its acuity and affection is a fitting tribute to its namesake.

The Federal government's latest efforts to knock our health system into shape remain a work in progress. It will be the task of future social scientists and others to assess success or failure. In the meantime, we have assembled some of Australia's top thinkers on health from inside and outside the Academy to cut through the contemporary confusion and address from different perspectives the questions at the heart of the current activity, captured by the title: 'A Healthy Society: How to get it? How to keep it?'

Jane Hall has acquitted admirably her task of touring us through the recent twists and turns of health politics to provide a pragmatic overview of the current state of play and some pointers for the future. Fellow health economist Leonie Segal argues that structural change is a precondition for the resource shifts dictated as necessary by the evidence, but for that to happen community interest must triumph over vested interest – an outcome at times difficult, though not impossible, to imagine. Alan Rosen's analysis of mental health reform to date is cautiously (determinedly?) optimistic, while Hal Kendig and Colette Browning find reason to hope that not only will the combination of current research and collective baby boomer determination translate into healthier ageing for this and future generations, but that in time we will be 'looking back on ageism as one of the last and most pernicious of the "isms" that, like racism and gender discrimination, has denied people from reaching the full potential of their lives'.

Mukesh Haikerwal both explains and advocates the little understood initiative to make electronic health records accessible online to patients and their doctors in the interest of better patient care. The thought-provoking contribution of Lisa Jackson-Pulver and colleagues challenges us to view Aboriginal health in an holistic way, as 'not just the physical well-being of an individual but (as) the social, emotional and cultural well-being of the whole community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total well-being of their community'.

Of course it is not just Aboriginal health which can be so defined: what better conception of a healthy society than one in which individuals not only enjoy physical well-being but are part of a community which in its entirety enjoys a strong sense of social, emotional and cultural well-being? As if on cue the final piece in this collection by Robert Cummins draws on longitudinal survey data to suggest that physical health may be less important to our overall sense of well-being than was previously assumed. The piece suggests that governments seeking maximum value for money in the pursuit of societal well-being may even be better off shifting some of the resources spent on traditional conceptions of health into programs that support us personal achievement, income and healthy relationships. A formidable challenge to vested interests indeed.

I hope you find plenty to think about. Your feedback is most welcome.

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Questions on the Future of ERA

Linda Butler

There has been a lot written on the first iteration of Australia's Excellence in Research for Australia (ERA) initiative, particularly in relation to the social sciences. The rise and fall of ranked outlets as a measure has been covered extensively in the media. The low ratings given to many disciplines in the social sciences, and their overall assessment vis-à-vis the sciences, humanities and the arts, also raised understandable concerns.

I am no fortune teller, so rather than attempt to see into the future of such an unpredictable landscape, I will ask three questions. As ERA transforms into a funding tool, it may be time to take discussions along some untrodden paths.

1. Why has ERA diverged so much from the REF?

At various times in their development, the UK's Research Excellence Framework (REF) and ERA inhabited broadly similar spaces. At one point in late 2008/early 2009, both initiatives were planning to introduce almost identical frameworks – using a metrics-based approach for the sciences, with an expert panel to interpret the evidence, in parallel with a primarily peer review process for the social sciences, humanities and the arts, where there would be a less central role for metrics. From that point the two frameworks diverged markedly – ERA continued to develop much along the lines outlined, while the REF reverted to a peer review process for all disciplines, with only the possibility of the inclusion of metrics where panel members saw them as useful. In addition, while ERA jettisoned the assessment of impact proposed under the Research Quality Framework (RQF), the REF has now enthusiastically embraced it, paradoxically basing their process very largely on RQF proposals. Intriguing indeed, from two quite similar sectors. So why did it happen? I suggest there are a number of reasons underpinning these changes, and they vary from the political and the bureaucratic, through to the cultural.

... on the role of metrics?

The diverging paths taken in relation to the role of metrics in the assessment process have both bureaucratic and cultural drivers. The *bureaucratic* drivers have to date received little attention. I come to this issue from a unique standpoint, having been closely involved as an advisor to all the major agencies involved – the Department of Education, Science and Training (DEST), the Australian Research Council (ARC), and the Higher Education Funding Council of England (HEFCE). When setting up expert groups to advise on the development of a metrics-based approach, the ARC (and DEST before it with the RQF) hand-picked a small group of around 15 advisors who all had one thing in common – long experience in assessing research, and in particular a detailed knowledge of the use of quantitative indicators as an aid to decision making. To be more precise, they knew both the weaknesses and the strengths of existing metrics. The ARC panel included three leading bibliometricians. In contrast, HEFCE set up a panel with over 100 members, seeking to cover all disciplines and universities, but in so doing only managed to include one bibliometrician. One voice among over 100 was clearly going to be insufficient to correct all the misconceptions, myths and lack of knowledge that arise in such a group. A single voice gets swamped by the multitude, and the misconceptions, myths and 'old wives' tales' hold sway. If the government agency developing the process has no confidence in the proposed methodology, and does not surround itself with well-informed and impartial advisors, then that methodology is unlikely to be adopted.

There are also *cultural* reasons behind the rapid backing away from an extensive use of metrics in the REF. UK academics have had little exposure to the systematic use of quantitative indicators, and in particular those based on citations in the journal literature. Since the Science and Technology Policy department (SPRU) at the University of Sussex moved out of bibliometrics in the 1990s, there has been no academic voice in the UK explaining the techniques, developing improved methodologies, or applying the techniques with academic rigour.

By contrast, Australia had such a group (until it was recently closed down) in the Research Evaluation and Policy Project (REPP) at the ANU. REPP's analyses have been used extensively by agencies such as the National Health and Medical Research Council (NHMRC), the ARC, CSIRO and numerous other research institutions and organisations. These studies are in the public domain, and most academics in the sciences have become reasonably comfortable with the use of bibliometrics to assess research when it is undertaken at a high level of aggregation, where multiple indicators are used, and where the data are subject to interpretation by discipline experts. Their use for the science disciplines in ERA was not controversial in the way it was in the UK. Perhaps with more exposure to their use in the UK, the decision may have been different.

A related '*cultural*' difference is the degree to which academics view the sanctity and infallibility of peer review. In countless meetings and conferences, my international colleagues and I have been intrigued by the view taken by our UK counterparts on peer review. They will only reluctantly admit to any shortcomings in the system, despite the overwhelming evidence that it is far from perfect, and they find it difficult to conceive of any metric that can add any previously unknown information to an assessment of research performance. In addition, most seem to view it as an 'either/or situation' – you either have peer review, or you have metrics. Bureaucrats may sometimes be keen to replace peer review processes, which they eye on occasion with scepticism and concern about costs, but no serious bibliometrician would propose this – rather we see metrics as valuable additions to an expert review process. Explaining such nuances to researchers in the UK has proven problematic.

... on the measurement of impact?

The divergence on the assessment of impact has been primarily *political*. If Labor had not won the 2007 election, Australia would still be assessing impact. The move to assess impact has been gathering pace across the globe, so it was not surprising to see the UK incorporate it into the REF. What is perhaps surprising is the weight they have given to the assessment of impact (20 per cent), which seems somewhat high given the revolutionary nature of the process. The RQF had been talking of a figure half that.

I have found it intriguing to watch the developments on the assessment of impact in the UK's REF. It is based fairly and squarely on the development work undertaken in Australia's RQF. They must have been very pleased to have so much of the development work already completed for them and well documented. Given that the Group of Eight universities appear to have reversed their opposition to its assessment, it is likely that we will see it on the table again in the not too distant future. At least this time we will reverse the tables on the UK, and will be able to learn much from the trials they have conducted, and possibly its first implementation in 2014.

When the original development work on impact was undertaken under the RQF, there was some understandable support for it from the social sciences. Some basic science disciplines struggled to demonstrate impact within the RQF timeframe, while the social sciences appeared to have fewer concerns on this score. The evidence coming out of the UK as its trials were undertaken is that there is no reason why the social sciences should be in any way systematically disadvantaged by assessment of impact. If anything, it is to the disciplines' advantage to be able to demonstrate the broader impact they have on Australian society – something the medical sciences, for example, have little difficulty doing.

2. Should the ARC continue to administer ERA?

The existence of a dual funding system is usually seen as a desirable situation, with the availability of both block funding for universities as well as individual, project or program grants through the two research councils. In the past, as in most other countries, the two systems were administered by separate government agencies. Now that ERA is to be tied to funding, it raises the question of whether it should continue to be administered by the ARC. There may have been some political expediency in the choice of ARC to develop the initiative in the first place, but imposing the ARC culture on both funding streams is not ideal. The ARC places a very strong emphasis on confidentiality, which is entirely appropriate when dealing with grant applications, its original core function. However such a culture is not necessarily in the interests of the sector in relation to ERA.

Griffith University's Tony Sheil and others have sought the release of more detailed data from ERA, but all such requests have been steadfastly refused. There are many of us who believe this is not a wise decision. As Tony Sheil pointed out, universities are keen to see what the makeup of a 5 rating looks like in different disciplines so that they can strive to attain that level. And surely that is one of the goals of ERA – driving improved performance. There are other reasons why access to the data should be opened up. It helps to limit the amount of 'game-playing' indulged in by some universities, a situation the UK Research Assessment Exercise (RAE) showed was widespread. Their strategies will be clearly evident in the data and their rivals for the research dollar will be quick to highlight these. But just as importantly, serious scholars of higher education are extremely keen to gain access to such a rich source of information on the research activities of the different fields. HEFCE in the UK has had no compunction about making all university submissions readily accessible online. I have never understood the reasoning behind the ARC's refusal to follow suit, and suspect it derives from long-held traditions in relation to its awards portfolio. Certainly the intention of DEST when it was developing the RQF was to make the data readily available in the same way as HEFCE – though of course we have no way of knowing whether this would have eventuated.

3. Should ERA continue with two assessment processes?

In effect, ERA now consists of two separate assessment frameworks. There are many common elements, but the core task of assessing research performance is tackled differently – a metrics based approach for most sciences, but one based on peer review for the remaining disciplines. How long is this dual system sustainable? My reading of the press, and my judgement of the anecdotal evidence that has come my way, is that the metrics based committees pretty much 'got it right'. Such an assessment seems less certain for the peer-review based committees. A common theme of the commentary seemed to be that some disciplines in the social sciences felt they were 'hard done by', albeit by their own community.

The system of an expert panel making judgements informed by a suite of quantitative measures seems to have been particularly successful. I suspect this has confounded many long-standing critics. Dropping the ranked outlets measure is unlikely to have any impact on the sciences. The actual citations received by publications would (or certainly should) have had far more weight with Research Evaluation Committee (REC) members than simply the outlet for those publications. And the RECs will still be provided with aggregated data on where units publish, albeit on an individual journal basis.

With the dropping of the ranked outlets measure, which I thoroughly applaud, the social sciences are left with no metrics on the quality of output. While no doubt many social scientists are happy to see the end of metrics, it may now be the time to start thinking seriously about possible alternatives. A recent European Science Foundation workshop, looking into the feasibility of establishing a citation index for the social sciences and humanities, held lively debates on the desirability and wisdom of even attempting to establish such an index. While a number of participants were implacably opposed to the inclusion of any metrics in the assessment of research in their disciplines, there was a general consensus about the inevitability of their introduction. Participants felt it essential to take control of such developments rather than leave them in the hands of bureaucrats.

If there is any belief that the introduction of metrics for the social sciences in Australia (whether in ERA or elsewhere) is inevitable, or even if there is a feeling that it is a real possibility, then it is essential to take the initiative. Bibliometrics weren't imposed on the sciences 'overnight'. It takes time to develop and test indicators and to understand what they are measuring. It takes even longer for the community of scholars to understand them, see them in practice, and accept (and demand) their use at appropriate levels of aggregation and in the context of an expert review process. The science disciplines were once just as skeptical of some of these measures as the social sciences are now. When the late Paul Bourke first established REPP, he spent well over a year travelling around the country, explaining these then-novel techniques to his academic colleagues, and ensuring they understood that we knew how they could, and most importantly how they should not, be used. After an initial conference on the measures in 1990, it was still several years more before we started routinely publishing analyses based on the indicators. The same educational effort will be needed before metrics can be used for assessing performance in the social sciences.

The architects of ERA have done a good job – it is far more nuanced and sophisticated than any other performance-based research funding system, with the possible exception of the RAE. But it is not perfect, and it is important not to treat it as a static entity. We have seen with the RAE/REF in the UK that assessment systems need to change over time. They need to respond to perverse and unwanted behaviour resulting from some current procedures, as ERA did in dropping the ranked outlet measures; and they need to incorporate new and/or improved methodology and data sources. The disciplines themselves need to be fully engaged in, if not drive, these changes.



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A Healthy Society – How to Get It? How to Keep It?

Designing the Health System for the 21st century

Jane Hall

There is no doubt that the health of Australian society, as measured by the health of its members, has improved significantly over the last century. Australians live longer, and they live more of their years without disability or disease. Paradoxically, at the same time Australians are recording higher levels of disability, of chronic disease, of precursors to disease such as obesity, high blood pressure and high cholesterol than before. This is due to a range of factors: preventing the acute, often fatal diseases of middle age leaves more people open to the chronic diseases of older age; higher levels of awareness and the ability to screen for early disease and precursors to disease results in more case-finding; and lifestyle changes in diet and exercise are changing risk factors. All of this tells us something about the challenges the health system of the 21st century will have to meet.

A healthy society, though, should be concerned not just with its average members but with all its members and in particular its most vulnerable members. And poor health marches hand in hand with social and economic disadvantage. There seems to be general agreement that equity is a feature of a well performing system: that protection from financial hardship due to ill-health should be universal; that individuals should not be excluded from health care due to their inability to pay the cost of services; and that the health gaps between rich and poor should be decreasing.

There are other features to be added to this list of criteria for a high performing health system. It should be affordable, in terms of the proportion of national income committed to health care. The health care delivered should be effective as assessed on the scientific evidence available. Services should be patient centred, and responsive to differences in patient needs and preferences. It should be adaptive, able to make use of new technologies effectively and appropriately. And the system should be accountable to funders, to the consumers who use it, and the citizens who support it.

The 21st century health system, then, has to be able to address prevention, the management of chronic disease, and support for ageing populations. These chronic, ongoing problems are often complex and are best dealt with by multi-disciplinary teams each bringing a different specialty. But each specialist tends to see their own 'body part' or disease, and somehow the individual focus in all of this must not be lost. Similarly, there are many different and varied services, primary care, community services, in hospital, hospital outreach, aged support, that need to be co-ordinated to provide effective, patient-centred care.

New technologies are affecting health care services in two ways. There are the specifically health technologies, for example, the ability to personalise medicines to suit the individual, which are likely to open a range of new – and probably expensive – possibilities. And there are general technological advances which can be used and adapted for health care: electronic information storage which will allow speedy access to individuals' medical records; communication modalities which allow long distance diagnoses and consultations; IT and engineering which allows in-home monitoring to replace repeated 'check-up' visits; and support for those who are frail or living with disability. To this must be added the power of the internet and the availability of information which will change what patients know about their own health and diseases, and how they might choose their providers. It seems that

the health system of the 21st century will have to be focused not just on the person, but on the person at home rather than in the hospital or the doctor's consulting rooms.

Our health system, though, was designed for another era^{1 2}. Before the beginning of the 20th century, medicine could not offer many effective treatments. The focus of the system was doctors who offered more by way of comfort than cure. The well-to-do were visited in their homes; the poor were cared for in benevolent institutions. This changed over the course of the 20th century, with developments in diagnostic interventions, surgical techniques, better understanding of the causes of illness and the aids to recovery. Much of this took place in hospitals. Hospitals became the focus of modern medicine and its technology, and they became places to treat the rich and the poor. Health care was divided into services that were provided outside hospitals and those provided inside. A patient was admitted to hospital, treated, then discharged; as though the hospital walls were impermeable.

This division is reflected in the way services are funded. The Medical Benefits Schedule was designed to provide subsidies for medical services delivered out of hospital and to private patients in hospital. It was designed around the interaction of the patient and the treating doctor. Public hospital funding was designed to care for public patients (originally the charitable cases), with private patients being charged. To this was added the Pharmaceutical Benefits Scheme, to ensure universal access to effective prescription drugs. These three components, established in the post World War II period, are the major funding programs of Australian Medicare still. The introduction of Medicare in 1984 was the last significant change.

Medicare established national, tax-financed universal coverage and re-structured the financial relationships between the Commonwealth and states and territories in funding of public hospitals. It provided every Australian with the right to be treated in a public hospital without cost, and the Commonwealth increased its share of public hospital funding to compensate the states. Private health insurance was largely ignored in the design of Medicare, though the roles of public and private financing remained contentious for the next decade. The next significant change in financing arrangements came with the introduction of the private health insurance subsidies under the Howard government³.

It is a journalistic trap to fall into the use of medical metaphor to describe the state of the Australian health system: the system is ailing; radical surgery needed; is our system sicker than the people it serves?⁴ But however we look at it, compared to other developed countries, it performs pretty well. Australians' life expectancy is one of the highest in the world. Death rates are continuing to fall for many major diseases, such as cancer, cardiovascular disease, asthma and injuries. The health system provides universal access to hospital care and pharmaceuticals, and subsidies for medical services. Health expenditure accounts for just over nine per cent of GDP, around the median for OECD countries⁵. Nonetheless, some redesign will be required if it is to keep performing well in the changing circumstances.

The path to health reform was commenced with the election of Kevin Rudd in 2007 and his promise to 'end the blame game' between Commonwealth and states. The blame game was focused mostly on the funding of public hospitals, which has been shared between Commonwealth and states since the immediate post World War II period. Although public hospitals were the responsibility of state governments, as the growth in hospital costs outstripped the growth in state revenues, the Commonwealth with its greater tax base has contributed to state treasuries to ensure the free treatment of public patients. The Commonwealth's contribution has been determined through five-yearly agreements negotiated with the states and territories. Overall, the Commonwealth share has been around 50 per cent, but this has fluctuated, depending on election cycles and the extent to which the Commonwealth was prepared to offer additional funds to induce the states (from here on states should be taken to include territories) to agree to new policy initiatives.

So far the path has not been smooth. The Rudd government established the National Health and Hospitals Reform Commission to develop a blueprint for the future health system. The Commission's report was made public in 2010 with recommendations that would have led to a major restructuring,

with a greater shift of funding to the Commonwealth, and eventually a much larger role for the private sector and a competitive market for private health insurance⁶. This led to another round of consultation, and the government's response was announced in March 2010⁷. Rudd proposed that the Commonwealth would provide 60 per cent of hospital funding, funded by a clawback of the GST revenue paid to the states. The theme was 'a national system with local control', featuring Local Hospital Networks (LHNs, small groups of hospitals, primarily geographically based, constituted as independent legal entities) and Medicare Locals, intended to be the primary care partners of LHNs.

But health reform can only be effected with the agreement of the states, or a national referendum to change the balance of powers. The states were not entirely happy with the Rudd proposal, and Western Australia refused to sign the agreement, making it a much less than national deal. The change in government in NSW also introduced the prospect of a second and much larger state refusing to complete the deal.

This has led to a new round of negotiations with the Gillard Government announcing that agreement had been reached with the states in August 2011⁸. This new agreement differs in some significant ways from the earlier agreement. The Commonwealth will, from mid 2014, fund 45 per cent of the growth component in the efficient costs of hospital care; from mid 2017, that rises to 50 per cent. But the states do not give up their GST revenues.

Payments will be made directly to the hospital governing bodies. Payments will be set on the basis of a cost per case type determined by a new independent agency, the Independent Hospital Pricing Authority. This is activity-based funding; hospitals will be paid for what they do, the full (i.e., average not marginal) efficient cost of each episode of care based on the type of case treated. In response to concerns that this payment method will disadvantage small rural hospitals with low admission numbers, some block funding will also be provided, where a special case can be made. The LHNs' guaranteed revenue base is 40 per cent of the growth component which is much less and a much less certain proposition than the 60 per cent of a scheduled price proposed in the initial agreement. Hospitals generally have high fixed and low variable costs, so LHNs could have increased their revenue and their surpluses where they could provide additional services at less than 60 per cent of the scheduled total cost. The new agreement maintains much stronger control for the states, which must contribute more than under the initial agreement.

The new agreement ends the five yearly cycle of negotiation, with its associated political grandstanding and brinksmanship⁹, replacing it with an agreed basis for future cost sharing. This aspect of the reforms has not attracted much comment but it is a significant change in the financial arrangements between the Commonwealth and the states. Further, a National Hospital Funding Pool will also be established into which will be paid all the Commonwealth contributions and that portion of the states' contributions which are to be distributed on an activity funding basis. Hospitals will be paid directly from the Funding Pool, bypassing the state treasuries (whereas previously Commonwealth funds flowed directly to the states), and thus ensuring transparency in the flow of funds.

In addition to giving up control of the Commonwealth funding contribution to their hospitals, the states have agreed to the establishment of a National Performance Authority. This will continue the earlier agreement under which national performance reporting commenced in December 2010 as MyHospitals under the auspices of the Australian Institute Health and Welfare. The new agreement allows the Authority to monitor performance, identify high and poor performing entities, develop new performance indicators, provide comparative performance data and identify best practice. At the same time, the expanded role of the Australian Commission of Safety and Quality in Health Care also requires public reporting. The reporting lines were a matter of dispute in the negotiations preceding the agreement. The initial legislation allowed public reporting without notification to the state authorities. This was understandably difficult for the states which were expected to work as managers of the system. According to the final agreement, the states will have reasonable access to the data, 'in line with their role as system managers'.

The agreement continues the theme of 'a national system with local control' through LHNs and Medicare Locals. LHNs are, as we have seen, constituted as independent legal entities. They have responsibility for managing the provision of services in line with Service Agreements negotiated with the state, managing budgets, implementing standards and providing data and information. This means varying extents of reorganisation of health service administration from state to state. In NSW, eight area health boards have been replaced by 15 local health districts. In contrast, in Victoria it is largely 'business as usual' for 18 regional authorities.

To what extent will this new agreement ensure sustainability (one of its stated objectives) of Australian public hospitals? Public hospitals are one of the major calls on state revenues. Public hospitals function as a pressure point in the system, if not the major one, with their requirement to treat all according to clinical need. They are busy places, with the workload for admitted patients and Emergency Departments steadily increasing. As more procedures and treatments can be moved outside the hospital walls, public hospitals are dealing with increasingly acute and complex cases. Public hospitals treat more of those with fewer economic and social resources that make admission more likely and discharge more difficult.

New medical technologies in general do not come cheaply, and affect hospitals by increasing the cost per case and extending the volume of cases which could benefit. Public concern with the state of the health system is focused on waiting times in emergency departments and for elective surgery. Thus state governments were facing voter dissatisfaction, with increasing growth in expenditures not matched by revenue growth. Faced with this, some state premiers began to entertain a Commonwealth take-over of responsibility for public hospitals. So this new agreement, by introducing some predictability in future cost sharing, has made public hospitals a more financially sustainable prospect from the state treasurers' perspectives.

But just as the Australian health system is not just a public hospital system, the issue of sustainability is not just about funding public hospitals. All OECD countries have seen long term increases in the costs of their health care systems, at rates that have outstripped the rise in GDP. While Australia is very much in the middle league, it shares the concern about the extent to which the health sector can consume an ever-increasing share of GDP, the extent to which health spending should be government financed, and whether this delivers good value for money.

The new arrangements do not impose direct caps or constraints on hospital growth. However, the intention of activity-based funding is to encourage greater efficiency at the hospital level in terms of the cost per case. There is an interesting clause here, committing to ensure public patients have access to all services provided to private patients. Where private insurers allow early technology adoption, even before full assessment of the risks and benefits of new interventions, this places upward pressure on public service provision. The agreement also allows for contracting out of hospital services, thereby potentially encouraging LHNs to seek the most efficient provider available. Total expenditure, though, is a product of average cost and volume. While clearly there are incentives for LHNs to maximise volume, the growth in service provision will require effective state level management of hospital volumes and roles. More local autonomy may lessen co-operation and collaboration across the networks, and foster duplication of services and capital. Control of expenditure will also require effective primary and community care services that facilitate the management of chronic disease and prevent unnecessary or avoidable hospitalisations.

Both the Pharmaceutical Benefits Scheme and the Medical Benefits Schedule remain intact. Primary care is not unaffected as the agreement does cover the establishment of Medicare Locals. These are new organisational forms, intended to be the primary care partners of the LHNs, with responsibility for the same geographically defined population base. While intended to be new, they are also an evolution of Divisions of General Practice, a Federal government initiative to bring independent medical practitioners into an organisational framework to educate, inform and implement new general practice initiatives. It seems that Medicare Locals are intended to support not just GPs but all primary care providers, such as physiotherapists, speech therapists, psychologists and nurse practitioners.

They are to take a lead role in integrating and co-ordinating existing services, and identifying and meeting service gaps for their populations. This is challenging as primary care providers will remain independent, financed from sources beyond the control and influence of Medicare Locals. So will the LHNs working under state health authority service agreements and funded from the National Hospitals Funding Pool. At the same time, there are other primary care initiatives in the form of SuperClinics, after hours arrangements, practice nurses, trial capitation payments for diabetes patients and new MBS items for telehealth consultations to be brought into a coherent scheme. Although Medicare Locals have the potential to play a pivotal role, their ability to exert influence may be limited.

The focus of these reforms is public hospitals, their governance and funding. Funding streams have been kept separate and distinct across hospitals, medical services and pharmaceuticals, without the flexibility to move across programs or pool funds. The incentives under activity-based funding for Local Hospital Networks are to maximise volume and shift the burden to other services where possible. There has been no attention to the adoption and dissemination of new technologies, often considered the major driver of increasing health care costs, throughout the public and private systems. The incentives for individual providers, in hospitals and in other services, remain unchanged, in contrast to reform efforts in other countries which have a stronger focus on changing payment mechanisms. The arrangements for primary care and community services are still fragmented with diffuse responsibilities; Medicare Locals will have to co-ordinate these as well as work with the Local Hospital Networks.

Australia has not yet arrived at the appropriate health system for the 21st century. But there are some interesting possibilities for future developments. The Commonwealth Government has clarified its funding responsibilities with levels of funding to be determined by a cross-jurisdictional independent authority rather than the politics of the day. There are to be new levels of performance monitoring and accountability, which can provide a basis for rewarding strong performance and supporting improvement. Hospital and primary care services are to be organised with a clearly defined population focus. The diabetes trial of voluntary enrolment and capitation may provide a strong evidence-based model for new ways of managing and funding services for chronic disease. The agreement specifically allows for new trials of alternative funding mechanisms. Medicare Locals may develop a stronger role that enables funds pooling and budget holding. All of these may provide the stepping stones for the further reform that is needed to build the health system of the 21st century.



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Mental Health Care Reform: More, Please¹

Alan Rosen

The Federal Government's budgetary enhancements to mental health are either a good start towards a happier ending or could herald an uncontrolled descent into more disconnected fragments of service.

The reforms announced to date will barely keep mental health's head above water. They struggle to stop a decline below the habitual seven per cent of health expenditure, even when full funding eventually kicks in in five years time. If there is any justice for mental health clientele, it should have moved up in stages by then to 13 per cent of the national health spend, to more closely match the proportion of health burden due to mental illness, and to bring us into line with comparable OECD countries.

Over time, the moneys committed will begin to enhance some well-researched or promising programs: youth mental health 'Headspace' and early intervention, early childhood programs, suicide prevention, e-health strategies, more housing with regular support for adults with longer-term conditions, and more integrated mental health care for the elderly.

Apart from these, many of the reforms are untested or do not go far enough. Even so, providers and the consumer and carer movements need to get behind this belated encouragement and work together to make these initial steps work, with a willingness to test new delivery systems, as well as to continue to pressure governments to develop their commitment further.

In primary (outside hospital) care, it is hoped that the cost blow-out in Better Access counselling (which enables people with diagnosed mental health disorders to access services from a range of mental health services providers under Medicare up to a specified limit) can be more effectively contained and targeted to those with defined mild to moderate mental health conditions. The Council of Australian Governments (COAG)-funded practice nurses and 'Better Access' fee for service arrangements for allied professionals potentially could have provided the opportunity to build informal interdisciplinary teams around GPs, which would be very useful to divert milder, higher prevalence psychiatric disorders from public mental health services. But there is no funding or provision for appropriate coordination of these services or triage between these and public services. In the present workforce market for interdisciplinary professionals, these initiatives inevitably will compete for already scarce staffing with the public sector.

It is also to be hoped that Access to Allied Psychological Services (ATAPS) funding – which enables GPs to prepare a mental health treatment plan and refer their patients to allied health professionals who deliver focused psychological strategies at low or no cost to the patient – will be expanded to reach and coordinate the care for people with more complex conditions, along with COAG supported mental health worker programs. Both programs are supposed to include Aboriginal communities and those in rural and remote areas.

The essentially bipartisan Federal government 'Headspace' initiative, providing early detection and intervention for mental health conditions in the context of a 'one-stop shop' youth health centre – containing GP services and offering general and sexual health, drug and alcohol, and human services – is also highly compatible with contemporary developments in community-based health care models. Thirty such centres have been funded so far².

Urgent need for one-stop-shops in readily accessible community locations

Urgently needed, though, are more balanced investments and strong monetary signals to the states to deliver evidence-based care for all age-groups and phases of care, similarly based in one-stop-shops in readily accessible community based locations. At present the prospect for further investment and reforms rests with a pious hope expressed in the last Federal budget that the Commonwealth will be able to convince the states to match its investment.

Of particular concern particularly over the past 15 years has been the wind back into hospital sites of community-based mental health services in Australia. It is disappointing that so far in these reforms, the opportunity for the widespread adoption of 24 hour mobile support units for mental health care in the community has been missed, when these have been demonstrated to be a most effective form of care both in Australia and overseas.

Such community-based 24 hour mobile services include crisis teams for all acute conditions, and assertive community treatment (ACT) teams for the most severely and persistently disabled clientele. Their implementation has been stalled or eroded in Australia since the end of the 1st National Mental Health Plan in 1997, when the incoming Howard government stopped the virtually contractual funding signals to the states. Consequently both the national strategy and state efforts became diluted, too thinly spread, and lost their momentum and focus. These signals need bringing back for services to become effective again.

The United Nations General Assembly Principles for the Protection of Persons with Mental Illness and for the Improvement of Mental Health Care state repeatedly that facilities for care, support, treatment and rehabilitation 'should as far as possible, be provided in the community in which they live', and that hospital-based care should only occur when such community facilities are not yet available.

The Rudd federal government GP Super Clinic initiative³, which has now morphed and extended into Medicare Locals, was to establish new facilities within local communities, bringing together GPs, practice nurses, allied professionals, visiting medical specialists, and diagnostic services, and allowing for co-located community health, mental health and counselling services funded by state and territory governments. This initiative towards better community-based care is welcome, but it will only fund 31 centres nationwide until 2012, some of which may be hospital-based.

Consequently it is likely to provide only a limited remedy to, and in some cases an exacerbation of, prevailing trends towards the retraction of community health services to hospital sites. Early indications are that these centres will work better where the local GP network is highly involved in planning and operating the centre, and where GPs have become more attuned to blended payments.

Basing mental health support and coordination services (like the COAG-funded Personal Helpers and Mentors programs) with Medicare Locals may allow better linking in with physical care, but could tempt primary care centres to go up-market, to direct these support resources to people with milder conditions, and to favour sedentary clinic-based medical over psychosocial interventions for mental disorders severely affected by social conditions.

Tendering out the proposed 'flexible care' packages and coordination teams for extended mental health care to Medicare Locals, NGOs or private interests provides a fascinating exercise in contestability, and may end up being a good idea. But it is largely untested in effectiveness, and extensive trialling over a longish period is desirable before wider implementation should be considered.

However there is already a very substantial allocation in the 2011 budget (\$343.8 million over five years) for a national roll-out, with no stated prior requirement for evaluation and rigorous research. Other modules of public community mental health services for which there is a considerable evidence base, including 24 hour mobile mental health support teams, will remain as abandoned orphans in the current program settings. This raises the question: what will be left of sound mental health services to coordinate?

The case to reinstate and extend community based 24 hour mobile mental health clinical and support teams

For more than 40 years, mental health services have explored, implemented and rigorously studied the practicality of community bases for developing teamwork between disciplines, psychiatrists, GPs, and other care partners, and making the home the centre of care, with the hospital as a place visited for short-stay interventions or acute risk management.

Since the late 1960s, several waves of randomised-controlled trials have firmly established the superiority of 24-hour mobile community-based mental health care and aftercare, and have been replicated convincingly in Australia. Twenty-four hour consistent availability of services in the community has created the confidence that has prevented admissions to hospital and shortened length of stay⁴.

Hospital-in-the-Home programs for various physical conditions were subsequently developed and demonstrated to be effective on the coat-tails of the previous success of mobile mental health delivery systems, though their genealogy is rarely acknowledged.

Thus, with long-term fluctuating mental illnesses, only around three per cent of the patients of the public sector mental health services are in 24-hour-nursed beds⁵. So public psychiatric clientele in treatment for persistent disorders are more than 32 times more community-based than hospital-based. Therefore, it is inevitable that any erosion of community mental health resourcing will have a multiplier effect on presentations to emergency departments and inpatient facilities. These community mental health filters ordinarily only admit high-risk presentations to hospital care, and facilitate care in more appropriate home environments. Dismantling these filters may partially explain an increase in hospital presentations. Another factor, clearly, has been the growth in acuity due to comorbidity of substance abuse with mental illness, particularly in young adult males⁶.

To foster convenient access, community hubs need to be close to major shopping centres, public transport and parking. Mental health services are more likely to do home visits when community-based, while they are more likely to become sedentary and focused on hospital priorities if based on hospital sites, and may revert to resembling traditional outpatient departments. Other management decisions have an impact on hastening this service regression back to the 1960s, for example, hospital administrations which take away mental health vehicles, or pool them with other departments, or relocate them into remote compounds or multi-storey car parks, so that community mental health workers cannot access them easily and urgently.

Mental health services will need to continue to develop consultation–liaison services to emergency departments, and all medical and surgical specialty units, as well as managing psychiatric inpatient units. However, the present growing demand for mental health inpatient beds could be effectively filtered by consistently placing in every catchment coherent, evidence-based, 24-hour mobile community assessment and acute care teams, community respite accommodation, mental health supported residential facilities, mobile assertive case management teams and rigorously organised GP shared care⁷. Evidence provided to the ‘Not for Service’ Inquiry⁸ and the Australian Senate Select Committee Inquiry on Mental Health⁹ indicated that even in states like Victoria, where crisis services had previously been most comprehensively implemented, psychiatric assessment services have since been concentrated in emergency departments. Consequently, there has been an increasing tendency to direct new referrals ‘into these stressed environments, even during normal hours’. Waiting times can be long. Service users find it difficult to contain their distress without disturbing others and often feel they must escalate life crises into life-threatening emergencies to be seen within living memory.

The evidence supports community-based care for better quality of life

Comprehensive 24-hour mobile community-based alternative care has been demonstrated to lower family burden, and increase families’ satisfaction with care (e.g., Houlst et al¹⁰). While control studies clearly favour community-sited psychiatric services, they mainly demonstrate better quality of life outcomes (e.g., consumer satisfaction and family burden) and intervening variable results (e.g.,

willingness to make return visits, decreased referrals to hospital and staying in touch longer with services¹¹). Though most clinical outcome studies also favour community- over hospital-based mental health services, with most mobile crisis and assertive teams subjected to randomised-controlled trials being mainly based squarely in the community¹², community location is only one among a suite of variables possibly contributing to the better outcomes.

The evidence base for community versus hospital location of community mental health teams is limited, yet there is a consistent trend: while there is both direct and indirect evidence that community location and mobility generates better outcomes¹³, no rigorous research study whatsoever favours locating community mental health services on hospital sites. Insistence by some state governments that the location of community mental health services in hospitals makes no difference to their quality, relies largely on anecdotal accounts from hospital-based managers and clinicians who presided over their retraction from community locations. There is also evidence from an award-winning Australian study that hospital-based presentations are more than three times more likely to be admitted than community presentations¹⁴. After controlling for clinical and functional severity, site of assessment accounted for most of this difference. An earlier study indicated that the closer individuals with a psychiatric episode live, or the more they present to a hospital with a psychiatric admission unit, the more likely they are to be admitted¹⁵.

Despite this growing evidence base, some state and territory health administrations (with notable exceptions, e.g., Australian Capital Territory) are continuing to preside over the dismantling or demobilising of 24-hour mobile crisis teams and community mental health care teams¹⁶, formerly operating well from community health sites, as they are expected to work more from emergency departments. Most jurisdictions are also making inadequate provision for community-based supervised residential facilities¹⁷, including 24-hour supervised community respite care. A principal bipartisan recommendation of the 2006 Senate Inquiry¹⁸ was that from additional COAG funding, a 'Better Mental Health in the Community' initiative should be established, 'comprising a large number of community-based mental health centres, the distribution primarily determined on the basis of populations and their needs'. (Assuming populations of around 60 000, this would represent 300 to 400 community based mental health centres nationwide to be rolled out over four to five years). Members of the Inquiry further recommended the establishment of well-staffed community-based residential respite facilities with step up and step down accommodation options in conjunction with the Federal government Better Mental Health in the Community program.

However, the COAG enhancements were subsequently directed only to ancillary care (e.g., non-professional personal helpers and mentors), to be delivered by non-government organisations, and to Medicare Benefits Schedule (MBS) payments for allied professionals, without any real attempt at coordination, rational placement, collaborative planning or integration with public mental health services. There are insufficient incentives for teamwork between Medicare-funded and state-funded clinicians. The relevant section of the Medicare legislation that inhibits crossovers between such services should be repealed. While generally these initiatives have been welcomed, they potentially repeat the mistakes of previous MBS fee-for-service arrangements of high out-of-pocket expenses, maldistribution of service providers favouring wealthy urban areas, serving less disabled clientele, and proliferation of individual provider-based treatments rather than collaborative care¹⁹.

The provision of well tested seven day and night mobile mental health teams, with adaptations for regional populations, has not yet been tried consistently and equitably across this country. One state, Victoria, is an exception, and even the resourcing there is now fraying.

As ever, funding signals shape practice, but there are still no clear funding signals from the Federal government to the states for public community mental health services.

We need these to concentrate their minds on meeting their obligations to restore evidence-based services like mobile crisis and assertive community care teams. Such public community mental health services should be complementary to and the backbone of all the important NGO support services. The former should be available to reach out to all in need of mental health care and to support NGO

facilities too, around the clock, largely with on-duty staff in urban settings, and on an on-call basis elsewhere.

The Mental Health Commission is key to fuller realisation of a national mental health agenda

A National Mental Health Commission as recommended to government by many stakeholders over many years, and most recently by the mental health minister's expert advisory panel and the 'independent blueprint group', is the key to the fuller realisation of the national reform agenda.

It should ensure that evidence-based care is equitably implemented, integrated and systematised, and that accountability mechanisms are much more arm's-length and transparent.

Only then, if the Commission is allowed to be sufficiently expert, well-informed, independent and continuous in tenure, will it be able to ensure that services actually do reach those in need consistently, and make a real difference in their lives, particularly to individuals with severe and persistent mental illness and their families.

So far, the good news about the National Mental Health Commission (NMHC) as announced in the May 2011 Federal Budget, is:

1. that it is tripartisan, now being integral to the mental health policies of the Labor government, the federal Coalition and the Greens;
2. that it will complement in some way yet to be defined, the state mental health commissions which are now developing in Western Australia and New South Wales, and hopefully other states in the future, which may also function as or devolve into integrative regional funding/commissioning authorities.
3. that it will be located within the prime minister's portfolio, which should provide for added independence from the Commonwealth health bureaucracy, and make it explicit that mental health should be an all-of-government enterprise. It must however report not only to the prime minister as stated, but to parliament and the public if it is to fulfil its promise of transparency.

However, there is still too little information available about the shape and functions of the NMHC. It is too embryonic in its proposed functions, and needs much more executive clout if it is to be credible and synergistic with the much more substantial WA and NSW commissions.

It needs to be seen to be much more independent of the health bureaucracies. Its real enhancement funding is too small (as its stated budget includes many pre-existing regular evaluative functions) and the nine positions on its board as well as its chair look curiously like allowing one place for the nominee of each state and territory health bureaucracy.

This Commission needs much better resourcing to take on roles which are best conducted nationally e.g., National Knowledge Exchange Centre for mental health service interventions and service delivery systems. The NMHC responsibilities should include both developing and monitoring of the national comparative scorecard and of the national ten year road map for mental health. This is preferable to delegating the task of its construction as now proposed to the Department of Health and Ageing, which has presided over the review and redevelopment of the National Mental Health Policy, Plan and Standards, resulting in their serial dilution and downgrading, and elimination of their specific goals, objectives and targets.

The recent August COAG meeting may not have achieved much that was new, but it set an important precedent in that the Prime Minister and premiers together invited mental health experts to directly address their busy meeting, rather than just government officials as usual. In the future, Premier Rann's strong advocacy for mental health in this forum will be missed.

But it is clear that the crisis in our nation's mental health services has at last achieved some priority on the public and political agenda. Let's hope this lasts, at least until equitable resourcing with the rest of health is achieved everywhere in Australia. The danger is that, their leaders having given us a

hearing, federal and state cabinets may now think they've done mental health, whereas in fact they have hardly begun.



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Directions for Ageing Well in a Healthy Australia

Hal Kendig and Colette Browning

Introduction

The quest for ageing well is arguably as old as humanity itself and is deeply embedded in individuals' consciousness and collective ideas of social advancement. A social sciences approach is centred on human understanding, that is, our awareness both of ourselves and the social world in which we live. A social scientist has a research-based understanding of social and cultural forces including the opportunities that can be enhanced in people's lives as well as the social constraints that can be overcome.

A constructive path to a Healthy Australia requires a life span approach and strong recognition of the importance of the social determinants of health and processes of social change. The life span approach must begin with investing in the development of children and younger adults given the life-long returns from investing in their health, well-being and productivity. But it cannot stop there. There are ethical responsibilities to also value people through midlife and later life ages and there are significant, but often unrecognised opportunities to enable ageing well to the benefit of people at all ages. The challenges and opportunities of ageing demand deep consideration of the varying experiences and meanings of growing older as well as the socio-economic forces that shape our ageing society. Yet why is so little done on positive approaches to ageing and what can be done about it?

Constructive, pro-active actions are required to address the unprecedented societal ageing that the United Nations has termed as the major world challenge over the 21st century. Consider the following imperatives for action to enable ageing well:

- By mid century, it is projected that one out of every four Australians will be aged 65 years or over, and their numbers will exceed those of people aged 18 years and younger.
- A woman at age 60 years now has an even money chance of living to 90 years or older, and life expectancy in later life is likely to continue to increase by a few years every decade. How healthy and satisfying will these extra years of life be?
- Indigenous Australians experience intense deprivation across the life span. Only five per cent are aged 60 years or more as a result of high birth rates and life expectancies estimated at 15 to 20 years less than other Australians. Efforts to 'close the gap' in indigenous life expectancy are directed overwhelmingly to younger people with less attention to those in mid and later life.
- Over recent decades we have witnessed the historical emergence of the 'third age' in which people can expect 20 or more years of healthy and independent living in later life before what for many are only a few years of frailty if any. How can individuals and Australia make use of these opportunities for themselves and the community?
- There is every indication that the next generations of older people, the massive baby boom cohort, will bring a new set of values, expectations, and capacities to a society where their independence and productivity will be crucially important. What can they and Australia do to prepare?

- What action can be taken to ensure fair life chances for individuals and social groups who have been disadvantaged by health and socio-economic circumstances earlier in life? The most disadvantaged individuals are much less likely to even reach later life.

In this essay we present a case for full, appropriate and fair inclusion of ageing and older people in the developing agenda on action to improve health and well-being. We begin with international ideas and issues for thinking about ageing and for setting a constructive social, policy and research agenda on ageing. We present examples of compelling Australian evidence on ways in which the experience of ageing can be improved, and then turn to policies that could work to achieve positive outcomes in the light of this evidence. We examine Australian research agendas on ageing that could further guide and inform enlightened approaches to ageing. We conclude that fundamental effort is needed to confront deep-seated ageism and to challenge established ideologies and interests that command more public and political attention.

Our essay draws on a body of critical thinking and Australian research evidence summarised in our 'A Social View of Healthy Ageing'¹. The ongoing research program underpinning our efforts – the Melbourne Longitudinal Studies on Healthy Ageing (MELSHA) program – was inspired and initially funded by the Victorian Health Promotion Foundation, with subsequent support from the National Health and Medical Research Council and the Australian Research Council.²

International perspectives on ageing well

Contrary to prevailing negative attitudes towards ageing, a new generation of research is demonstrating that processes of ageing are amenable to a range of bio-psycho-social influences, with many of them being changeable and hence improvable. Over recent years much of the research and policy discussion on healthy ageing has followed the widely accepted World Health Organization (WHO) definition: 'Health is a state of complex physical, mental and social well-being and not merely the absence of disease or infirmity'. 'Active Ageing', as promulgated by the WHO Global Programme on Ageing 2002 '...is the process of optimising opportunities for health, participation, and security in order to enhance quality of life as people age.' The active ageing framework emphasises continued involvement in six areas of life: social, physical, economic, civic, cultural and spiritual life.

The WHO Active Ageing framework approach 2002 recognises that over our life span we set 'developmental trajectories' that heavily influence our capacities, resources, and vulnerabilities in later life. While capacities do eventually decline with age, there is considerable variability: many remain capable through to near the end of life and experience a 'good death' with their loved ones. Health and social sciences research demonstrates that there are many opportunities for enhancing health and capacities in midlife and for preventing disability and maintaining independence into later life. For example, Walker³ proposed that at different points in the life span the promotion of active ageing needs different priorities and approaches. At retirement older people need choice in activities and encouragement to continue participation in society. At later stages older people and their carers may need to establish ways of managing illness and disability in active partnership with health and social care professionals.

Research on healthy ageing potentially could inform action to achieve important global goals during the uncertain decades ahead. The WHO *Closing the Gap in a Generation* report 2008 calls for achieving '... healthy equity through action on the social determinants of health'. The report emphasises the importance of early childhood development and gender inequalities and mentions the need to '... create conditions for a flourishing older life.' It recommends comprehensive societal actions that support health in all aspects of daily life including the workplace, and recognises how the inequalities of power and money influence health outcomes. However, the essential focus in that report on a good start for children and younger adults is not balanced by attention to a life span approach acknowledging the value and potential for improving health in later life.

The United Nations has also recognised the importance of promoting healthy ageing. In 2002 the UN Second World Assembly on Ageing set three priority directions to achieve 'a society for all ages': 1)

the active participation of older people in development that would benefit all citizens; 2) the promotion of health and well-being as people age; and 3) the provision of enabling environments to support healthy ageing. The United Nations/International Association of Gerontology and Geriatrics Research Agenda on Ageing for the 21st Century 2007 has the potential to guide research on ways ahead with these priority directions, and seeks to resolve tensions between economic development and the perceived 'burden' of ageing populations.

Our multi-disciplinary research: what we know about ageing well

While healthy or active ageing are terms promoted by researchers and policy makers it is important to understand how older people themselves understand these processes. We have collaborated in a number of qualitative studies to tap the diverse voices and experiences of older people from different social groups. A qualitative investigation of older people born in Australia and migrants from the Netherlands reported that older people had 'health identities'; in their own cultural context they viewed themselves as successful 'survivors' whose good health was 'earned' by good health habits^{4 5}. Chinese Australians reported the importance of physical activity and healthy eating in maintaining a 'happy' old age but also recognised the important role of happy and successful adult children in their own well-being⁶. An ethnography of older homeless men uncovered the importance they placed on health, their strategies for healthy eating and finding shelter, and the barriers they faced in everyday life⁷. Another qualitative study examined ageing individuals' perceptions of their 'social treatment' in everyday life, ranging from the affirmation of 'normal ageing' to the ageism and exclusion of being made to 'feel old'⁸.

The Melbourne Longitudinal Studies on Healthy Ageing program (MELSHA) aims to uncover predictors and consequences of healthy ageing in a cohort of older people who in 1994 were living in the community. In the baseline survey, the participants reported that their health ideals centred mainly around keeping active; the major benefits of good health were perceived to be a positive outlook, physical or social activity, or independence or absence of disease. Respondents had a strong focus on positive health actions, notably physical activity, healthy eating and social activity. Healthy actions were encouraged most by spouses (especially wives), with friends and adult children also being significant. Education, income and other aspects of social class were related to positive health behaviours and risk factors for serious illness.

Ongoing follow-up of the MELSHA survey participants has enabled us to determine baseline (1994) lifestyle predictors of ageing well over 12 years of outcomes. Lifestyle-related predictors of survival (after taking account of demographic and health variables) were low strain and social activity. For entry to residential care, significant lifestyle-related risk factors were being underweight and having low social activity. For ageing well – defined as continued independence with good self-rated health and psychological well-being – there were a number of significant lifestyle predictors: physical activity, nutrition, not being underweight, social support, low strain, and not smoking. These life style factors are potentially improvable; they are major risk factors for chronic disease and essential targets for health promotion late in life⁹.

The Healthy Retirement Project, funded by the Victorian Health Promotion Foundation, has followed individuals through retirement transitions since the late 1990s¹⁰. There has been increasing diversity of mature age working patterns, including departures and returns to paid work, with 'retirement' status often being ambiguous for women. Most managed the transitions with continuing health and well-being; many had freely chosen retirement and found that it enabled changes to healthier ways of life and improved health and well-being. Adverse outcomes, however, were apparent particularly for those who had been forced to retire by employers or through ill health; working class men fared poorly relative to other retirees. Socio-economic resources and opportunities for choice are critical to entry to a rewarding and independent later life and managing life transitions.

The Ageing Baby Boomer in Australia project provides further evidence on how ageing experiences are shaped by the socio-economic context in which people have lived their early and middle life.

There is great diversity among the boomers born after World War II and there is both continuity and change compared to the previous Depression and World War II generations now in later life. To varying degrees Boomers reject ageist expectations, overwhelmingly evince a fierce desire to remain independent and contributing, and have a strong 'generational stake' in the futures of their children and grandchildren. While life expectancy is expected to rise, health promotion is a priority because many boomers have significant behavioural risks (notably obesity and sedentary lifestyles) and early onset of diabetes and other chronic diseases¹¹. The impact of socio-economic context is underscored by the way in which the Global Financial Crisis and policy changes have upset baby boomers' plans and led many to delay retirement or to return to work after retirement¹².

The ARC Life History and Health Study¹³ is examining how productivity, health and well-being on entry to later life are influenced by diverse family, work, and health experiences throughout earlier life. Comparisons with England will shed light on the influence of societal socio-economic developments and policy impacts on critical points earlier in the life course.

Public policies for ageing well

Public policy is important not only as a response to population ageing but also because it directly shapes ageing experiences and the language of policy reflects societal attitudes. In 2000 the Commonwealth government produced a thoughtful National Strategy for an Ageing Australia but action subsequently foundered in the absence of political leadership and because of policy dissension between levels of government and departments. The inter-connectedness of ageing issues – income, work, care etc. – is not easily addressed because 'functional' programs are addressed separately by ministerial portfolios and their departments. In this context the newly established Ministry on Ageing arguably became a 'Minister for Aged Care.' Healthy ageing policy focused narrowly on chronic illness prevention and management and there was scant attention paid to social and cultural influences on healthy ageing. Indigenous people were particularly marginalised because healthy ageing policies largely neglected them by taking action in the health sector to the exclusion of income, housing and culturally appropriate aged care¹⁴.

The series of Intergenerational Reports (IGRs) produced by the Commonwealth Treasury are perhaps as close as we have now to a national policy statement assessing issues of an ageing Australia¹⁵. On the one hand, the IGR reports provide an ongoing barometer on the financial implications for the Commonwealth government, thus alerting us to make societal and policy adjustments well in advance. On the other hand, the IGRs come dangerously close to scape-goating older people for the rising costs of government, many of which are not intrinsically related to ageing. For example, they attribute projected increases in government expenditure to population ageing and health costs, without taking account of the increasing use of health services by all age groups. Population ageing is misused as a primary basis to argue for fiscal restraint and productivity increases in order to avoid encumbering future generations.

A more balanced account emerges in the 2009 National Health and Hospital Commission Report which recognised sensible directions for improving the appropriateness of health and aged care services for older people and hence improvements for the entire health system. A range of further initiatives in chronic disease, however, often refers pejoratively to the 'tsunami' of ageing and chronic illness. Initiatives in preventative health focus overwhelmingly on either single diseases or on desirable health actions with scant attention to multimorbidity, ageing, older people or the community and the social context of ageing.

There are essential intersections between medical and social paradigms of healthy ageing. Patients' self-management of their own chronic diseases, in partnership with health professionals, has been shown to slow disease progression and limit adverse consequences for independence and quality of life. After trial efforts in self-management proved to be effective, Medicare now funds general practitioners to work in collaboration with other health professionals to implement self-management approaches and provide preventive care for people in midlife. This approach through the primary

health care system recognises chronic illness and obesity as the biggest threats to healthy ageing. Doctors, however, have limited time to work with patients to change the behaviours that often contribute to the onset of these conditions and their associated morbidity.

Health assessments for older people under Medicare have focused on identifying 'problems' in late life with little attention to the social drivers of health in old age. The Government's National Primary Health Care Strategy 2009 concluded that ageing will influence the most change in primary health care use but recent initiatives have focussed on providing primary health care services in aged care with little focus on prevention. Medicare Locals, which aim to align services to the needs of local communities, have the potential to promote a broader social health approach to the needs of older people. Interventions enabling behavioural change in older people, such as an innovative Australian falls prevention program based on improving self-efficacy, have demonstrated how health promotion can be effective for vulnerable older people¹⁶. The health and community care systems need better integration to provide a simpler point of access for older clients. At the population level, we need to adopt health promotion approaches more seriously and allocate significant resources if we are to achieve the society goal of 'ageing well, ageing productively'.

Applied research has also demonstrated the value of a 'wellness' approach to community services, which values '...capacity building, restorative care and social inclusion to maintain or promote a person's capacity to live as independently and autonomously as possible'¹⁷. The model builds on the evidence base from the healthy ageing research literature and the WHO Active Ageing Framework that demonstrates that older people have capacity for improvement given supportive social and physical environments and appropriate and accessible services. The Productivity Commission Report on Caring for Older Australians, released early August 2011, commends the wellness approach yet does not go very far in recommending ways to implement it.

Direct action by consumer groups is contributing to research and advocacy to advance healthy ageing. The Australian Councils on the Ageing provide advocacy, community information and programs on a wide range of topics including healthy ageing. The National Seniors Productive Ageing Centre, co-funded by the Australian government, funds and partners applied research that '... promotes the choices and capacity of Australians, as they age, to engage in valued activities, whether through work, learning, volunteering or community activity'.

The importance of the social and economic context of ageing is underscored by the Government's recent emphasis on supporting and retaining older workers, for example, the 'Productive Ageing Package' introduced in the 2010 budget. These actions, at a time of looming workforce shortages and contentious immigration policies, contrast sharply with the widespread redundancies of older workers during the recession of the early 1990s. In a similar vein a strong workforce focus is expected for the newly appointed Age Discrimination Commissioner on the Human Rights Commission.

It is encouraging that the relatively new Minister on Ageing, Mark Butler, is taking advice from older consumers and pursuing pro-active approaches to ageing issues as well as aged care.

Australian research agendas – the contest for research funding

Efforts to support healthy ageing research increased after 2002 when the Australian government established National Research Priorities (NRP) that aimed to better connect government research funding to national and social benefits. After extensive public debate and policy consideration, 'Promoting and Maintaining Good Health' was established as one of the NRPs. This Health priority initially had four goals: 1) A healthy start to life; 2) Ageing well, ageing productively; 3) Preventive healthcare; and 4) Strengthening Australia's social and economic fabric.

While the NRP process was dominated initially by physical and medical scientists, the goals became more inclusive of social and policy interests after lobbying by the social sciences, humanities and policy areas in government. For example, Goal 4 above was added. The first draft of the ageing goal was defined in terms of degenerative illness in a recommendation from the National Health and

Medical Research Council. The final ageing well, ageing productively goal, developed with constructive input by the Academy of Social Sciences in Australia, was as follows:

Ageing well, ageing productively: Developing better social, medical and population health strategies to improve the mental and physical capacities of ageing people.

The priority further noted that 'major shifts in cultural expectations and attitudes about ageing are necessary to respond constructively, at both an individual and population level. A healthy aged population will contribute actively to the life of the nation through participation in the labour market or through voluntary work. This goal supports the Government's National Strategy for an Ageing Australia.

A second important initiative was the Promoting Healthy Ageing in Australia report 2003 commissioned by the Prime Minister's influential Science, Engineering, and Innovation Council (PMSEIC). The group which prepared the report comprised medical and epidemiology experts along with an ASSA-nominated social scientist, advocates for older people, and a policy department representative. After extensive debate the group presented to the Prime Minister and Cabinet:

... a vision for an additional 10 years of healthy and productive life expectancy by 2050. Research evidence indicates that there are effective actions that can be taken to enable people to live longer in good health, staying mentally and physically active, and able to participate and enjoy life until they die in advanced old age. The report also outlines a research agenda that would provide information to assist in achieving this vision.¹⁸

This research agenda underscored the importance of ageing as an opportunity and recommended a 'whole of life' approach to healthy ageing. It presented a research agenda for physical activity, nutrition, work, the social environment, and the built environment. It recommended the establishment of a national network for healthy ageing research and longitudinal surveys of healthy and productive ageing. The Australian Government subsequently funded a national ARC/NHMRC Research Network in Ageing Well (2005–2010) and the NHMRC/ARC Ageing Well/Ageing Productively (AWAP) funding program '... to foster research into ageing which crosses sectors, research disciplines and institutions to develop an authoritative evidence base to underpin more effective and well informed policy and practice'.

Valuable research funded by the AWAP program is now reaching completion on working longer; healthy brain ageing; addressing poly-morbidity; ageing well among men and women; and modelling ways to compress morbidity and optimise healthy ageing. Of particular significance was funding for research concerning older indigenous Australians. As indicated earlier, indigenous people experience the kinds and levels of disease that are broadly comparable to those in developing countries. In 2006 additional valuable work commenced on the social aspects of ageing under research grants aligned to the NRP goals of Preventive Healthcare, and Strengthening Australia's Social and Economic Fabric.

A bright spot in the last year was funding of the ARC Centre of Excellence in Population Ageing Research (2011–2017) led by the University of New South Wales, the Australian National University, and the University of Sydney. The Centre has a focus on healthy ageing and economic and productive aspects of ageing as well as the support of the Commonwealth Treasury and other federal departments. However, we need a broad-based, diverse foundation of ageing research. With the NHMRC/ARC AWAP program grants coming to a conclusion, the future is now unclear. The NHMRC has ageing research and research on social determinants of health on its agenda for the current triennium but once again research on the social determinants of ageing will have to compete with well-established research programs in specific diseases and medical specialities. We return to this crucial issue in our conclusion below.

Conclusions: research and social action for healthy ageing

In our estimation, the usefulness of knowledge about ageing can be enhanced by multidisciplinary efforts and translation of findings into policy, practice applications and public awareness. One priority

concerns the psycho-social factor underlying behavioural risk factors and self-management of chronic disease. Another is to shed light on the 'structural' factors in work, economic resources, and environmental exposures that influence inequalities in health and other life outcomes.

In Australia, the modest place of healthy ageing is illustrated by the health priorities enunciated in the Australia 2020 Summit convened by the then new Australian government 'to help shape a vision for the nation's future'. The Summit's 'long-term health strategy' enunciated important 'ambitions' for healthy lifestyles, health promotion and disease prevention, health inequalities, future challenges and opportunities, and health research. There was a strong focus on indigenous health, children and youth. Productive ageing was mentioned as a health opportunity. It was recommended that 'health funding should be redirected to prevention to stop people from coming into the health system later in life with chronic diseases'.

How might one advance the cause of constructive approaches to healthy ageing? Within developed countries such as Australia, research can point the way towards reconstructing our social and economic institutions and expectations in line with emergent aspirations and imperatives. Political economy perspectives indicate that productivity of older people can be enabled through social, market, and political pressures that re-engineer the ways in which we organise work, leisure and education over the life course. Commitment to social and health opportunities over the life course can show how social investments in vulnerable groups earlier in the life span can yield returns through greater independence and productivity later in life. Understanding psycho-social influences on health can guide health promotion and interventions that enable continuing health, independence and well-being. Comparative research can identify ways in which key ageing issues can be addressed more equitably and more effectively through re-structuring our social and policy institutions.

In the midst of the interest struggles over scarce resources, one might well ask where we can turn for leadership towards achieving healthy ageing and research underpinning it. Governments and employers are already demonstrating some enlightened self interest as per their support for research and programs that can increase productivity and reduce health care costs. More fundamental leadership is emerging among older people themselves and their advocates who seek to continue their own active contributions, independence, and well-being – and leave a constructive legacy for future generations. Research can help us to identify how to socially construct healthy ageing in ways that benefit diverse social groups and successive cohorts over their life course in an increasingly global world.

Our optimistic conclusion is that with reasoned arguments and sound evidence social and political factors are changeable. In the decades ahead we should be looking back on ageism as one of the last and most pernicious of the 'isms' that, like racism and gender discrimination, has denied people from reaching the full potential of their lives.



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Landmark Moment in eHealth for Australia

Dr Mukesh Haikerwal AO

In Australia we enjoy an enviable health system that up to now has ensured we have access to timely, quality healthcare when we need it and that the care is affordable and in general equitable. However, maintaining this level of healthcare, keeping the system sustainable and improving the health outcomes of Australians requires a fundamental change in approach to the way healthcare is delivered. Core to this is placing the patient at the centre of their care, moving the care settings out of the hospital care sector and into primary care and reserving the high cost, high intensity technically complex hospital sector for the types of care and treatments to which it is best suited.

In most OECD countries, spending on health is a large and growing share of both public and private expenditure. Australia is not alone among OECD countries in projecting such profound and sustained growth in expenditure on health services.

Members of the Australian healthcare community understand the benefits of eHealth and are being actively enlisted not just as supporters but as active participants and change agents. A 2010 report published by Booz and Company on global eHealth investment put it succinctly: *eHealth programs could cut healthcare spending by 3% annually, saving at least \$7.6 billion in 2020 alone. And commitment to a full eHealth program now could help save an estimated 5000 lives annually, once the system is fully operational.*

More enticing, however, is the prospect of better communications between the many healthcare providers who may be caring for the one patient, ensuring key information and data is available and that there is no falling between the cracks of care: in the hospital, out of hospital or between these settings. Better informed patients and better information for their carers results in safer, connected care.

The patient journey today is hampered by disjointed communication and limited access to quality information. As a result, the ability to make sound decisions about care is often impaired by delays or lack of available information, and there are a significant number of adverse effects and high levels of frustration, particularly among patients who are elderly, disabled, or suffering from chronic conditions or mental health disorders.

The facts can be startling:

- Up to 18 per cent of medical errors occur as a result of inadequate availability of patient information¹.
- Many Australians experience an adverse drug event each year and approximately 138,000 of these end up in hospital².
- 53 per cent of medication mistakes are considered 'definitely preventable' and 30 per cent of unplanned hospital admissions in people over 75 years are associated with medication mistakes³.
- 10 per cent of all GP consultations are with a patient the doctor has never seen before⁴.
- It is estimated 25 per cent of clinicians' time may be spent collecting data and information⁵.

We have to improve on today's systems and reliance on tools such as pen, paper and human memory. Consumers, healthcare providers and managers need to be able to more consistently, reliably and securely access and share health information in real time across geographic boundaries. The best way to achieve this is through world class use of information technology in the health system – an eHealth capability.

A national approach to eHealth

When, in January 2004, Australian Health Ministers endorsed arrangements to establish a new national entity, the National E-Health Transition Authority (NEHTA) to drive critical eHealth initiatives, this was recognition that while eHealth systems were already in use across Australia, a national approach was required.

Having an accurate, secure, timely and trusted source of clinical information and being able to transfer that information from one provider to another with the patient's consent is both simple and complex but ultimately beneficial, convenient and potentially life transforming, if not life preserving.

As the National Clinical Lead with NEHTA my role is to ensure that the 'health' is put firmly back into eHealth so that eHealth developments are clinically relevant and meaningful, safe and effective. We have to show benefits from the use of this new technology that supports and enhances clinical method though does not replace it.

For Australians seeking healthcare, visiting a GP or pharmacy – indeed any healthcare professional or health setting – will be different.

Visiting a doctor anywhere in Australia will be a more streamlined and efficient experience. And whether a patient is admitted through emergency or booked in advance, the attending doctors will have access to the patient's clinical information. The new healthcare identifier numbers now available will ensure all the right information about the right patient is identified and available at the right time, allowing for co-ordinated team based care.

Paper requests for services will eventually be a thing of the past and instead of patients travelling back to their GP after a diagnostic test with a paper report and X-ray film, the GP will access a patient's results and reports electronically. Prescriptions can already be despatched and read electronically at pharmacies. With secure messaging, the net is strengthening to allow for computer generated messages to be sent and received and even replied to between many providers.

From 1 July 2012, Australians will be able to register online for a Personally Controlled Electronic Health Record (PCEHR). For the first time Australians will have easy-to-access information about a summary of their medical history – including medications, test results and allergies – allowing them to make informed choices about their healthcare. The information will include a log of events which they have been party to on their health journey in the form of Event Summaries from any registered healthcare professional they have seen. They will be able to present for treatment anywhere in the country, and give permission for health professionals to access their relevant history at the touch of a button. As care provided is recorded, an escalation path for care is possible as previous treatment and the degree of its success can guide on-going care over and above what has gone before, reducing duplication and delays.

The one in seven Australians suffering from a chronic illness will be able to manage their illness more effectively, regardless of their age or physical location. They will experience the freedom of enhanced shared care, improved decision support based on timely, accurate clinical information, and be more involved in the management of their own health.

A national eHealth environment requires the accurate identification of all parties involved in healthcare; a common language or terminology that all systems will use; a secure way for information and messages to be transmitted between different health systems; an authentication process that proves systems and people are who they say they are; and a consistent way of sending information

(such as patient information on clinical discharge summaries or referrals) based on solid technical and clinical standards and safety.

Joining up the dots between healthcare providers from all services and support for a collaborative care model will enhance healthcare.

NEHTA has made significant progress in establishing these requirements and building the national infrastructure.

On 1 July 2010, the Healthcare Identifiers Service commenced operation providing a national system for uniquely identifying all providers and consumers of health services in Australia. Medicare Australia has been contracted to operate the service for an initial two year period. Approximately 23 million individual healthcare identifiers (IHIs) have been allocated to the Australian public. A staged approach is being deployed to implement the IHIs across Australia.

For a system to be able to use the new systems and numbers, they must comply with standards. In June 2011 the National Association of Testing Authorities accredited the first two laboratories to test conformance of both secure messaging services and software systems wishing to access the healthcare identifiers service. This significant milestone supporting and checking the conformance, compliance and accreditation of systems paves the way for a new generation of software to assist healthcare professionals.

When one clinician says 'diabetes' it is important the words used are understood by all clinicians to mean the same thing through the initial diagnosis and then the sub-categories that further define that diagnosis. The terminologies used need to be agreed and consistent. NEHTA helped establish the International Health Terminology Standards Development Organisation leading to the development of a common language or terminology to be used in clinical communications known as SNOMED CT-AU.

The Australian Medicines Terminology (AMT) delivers a standard national approach for the identification and naming of medicines and improves safety and efficiency in a new outpatient and discharge prescribing system.

In August 2010, the first live implementation of the AMT in a clinical environment occurred with Box Hill Hospital, part of Eastern Health Services (one of Melbourne's largest metropolitan health services), generating prescriptions for outpatients and discharge through their HealthSMART Clinical System.

It is critically important healthcare providers know communications are being sent and received by the right people when they use eHealth systems. The National Authentication Service for Health (NASH) will authenticate users and put in place strong access control mechanisms for eHealth in general and the PCEHR in particular so that each person on the system is known and their level of access and professional group is understood. When patients grant access to their information to health professionals, they can understand to whom this has been granted and track which providers have looked at their records. In March 2011, the contract for the NASH design and build was awarded to IBM.

This work in developing much needed infrastructure is now being leveraged as we deliver key components of the Federal Government's PCEHR Programme through the Department of Health and Ageing (DoHA).

The Personally Controlled Electronic Health Record (PCEHR)

This program, announced in May 2010 is costed at \$466.7M over two years and is progressing at a fast rate. Key parameters are:

- Australians will have the opportunity to register online from 1 July 2012 for their PCEHR.

- Participation is voluntary and individuals will have a range of controls over the record.
- The PCEHR System will be underpinned by rigorous governance and oversight to maintain its clinical integrity, utility, privacy and national standards and core national infrastructure.
- The PCEHR systems complements (does not replace) existing records and clinical communications.
- The PCEHR will bring key health information from a number of different systems together and present it in a single view.
- Information in a PCEHR will be able to be accessed by the individual and their authorised healthcare providers. With this information available to them, healthcare providers will be able to make better decisions about health and treatment advice.
- The PCEHR will not hold all the information from a doctor's records but will complement it by highlighting key information.
- In the future, as the PCEHR becomes more widely available, individuals will be able to access their own health information anytime from anywhere in Australia.

In April this year the Minister for Health and Ageing Nicola Roxon released the PCEHR Concept of Operations. This draft document described how the system would work, its benefits, structure and the important privacy principles. It was used to support extensive engagement and consultation to co-develop and finalise a refined Concept of Operations. This new document will then be used as the basis for legislation to underpin the system and to drive the design and build and implementation of the national PCEHR system.

Submissions received from stakeholders have helped shape continuing work around governance and policy-setting, change and adoption, benefits evaluation, and the lead eHealth sites that are being established around Australia to test different elements of the PCEHR system in practical settings.

The final PCEHR Concept of Operations was released in August 2011.

Consultation

The development and uptake of eHealth in Australia does not happen in isolation. I lead a team of more than 60 Clinical Leads from various disciplines and together we provide clinical input to NEHTA's work program and engage with the Australian clinical community.

We actively consult with consumers, the ICT industry, healthcare providers, and policy makers. NEHTA has a number of Stakeholder Reference Groups, with members from peak bodies and industry associations. These members are involved with every aspect of NEHTA's work program.

In particular, during March 2011 a series of forums were held with a number of key stakeholder groups including Medical and Practice Managers, Nursing, Allied Health, Pharmacy, Dentistry and Optometry and the ICT industry. A larger forum was held with 200 representatives from four key stakeholder groups (consumers, ICT, healthcare providers, policy makers).

The objectives of these meetings were to inform stakeholders about the key elements of the draft PCEHR Concept of Operations (prior to its public release), to better understand any issues they may have with the proposed system design, and to seek their input on their requirements for successful delivery of a change and adoption strategy. The specific aim of the larger forum was also to enable cross-sector dialogue across the four key stakeholder groups, as had been requested by the Consumer Reference Group.

We also held a number of PCEHR workshops with target groups in the community likely to receive the most immediate benefit including people with chronic and mental health conditions, older Australians, people with disabilities, their families and carers, people living in rural and remote areas, Aboriginal and Torres Strait Islanders, parents and babies and youth.

National health reform is all about improving health outcomes for all Australians. The foundations we are building now are just the start of this reform, and these will shape the way healthcare is delivered for generations to come.

The National E-Health Transition Authority (NEHTA) has been asked by the governments of Australia to develop better ways of electronically collecting and securely exchanging health information and is the lead organisation supporting the national vision for eHealth in Australia. Further information on NEHTA's work is available at www.nehta.gov.au

Keep up to date with eHealth developments across Australia: www.ehealthinfo.gov.au



Dr Mukesh Haikerwal is the National Clinical Lead with the National E-Health Transition Authority (NEHTA) working on the NEHTA program to deliver eHealth for Australia. In 2011 Dr Haikerwal was made an Officer of the Order of Australia (AO) for distinguished service to medical administration, to the promotion of public health through leadership of professional organisations, particularly the Australian Medical Association, to the reform of the Australian health system through the optimisation of information technology, and as a general practitioner. In 2011, Dr Haikerwal was appointed Chair of the World Medical Association.

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Healing, Empowerment and Resilience Across the Lifespan – Views from an Academic Unit.

Lisa R Jackson Pulver, Melissa R Haswell, Sally A Fitzpatrick

Introduction: Indigenous definitions of health

There is no better place to start a broad reflection on Indigenous health than with the question, 'How is health defined?' There are a few definitions that have been developed by and accepted within the Aboriginal and Torres Strait Islander populations as appropriate to describe health. One of the most often used is:

'Aboriginal health' means not just the physical well-being of an individual but refers to the social, emotional and cultural well-being of the whole Community in which each individual is able to achieve their full potential as a human being thereby bringing about the total well-being of their Community. It is a whole of life view and includes the cyclical concept of life-death-life¹.

Within this definition, the word 'well-being' is mentioned three times. It comprises four dimensions – social, emotional, physical and cultural – and is linked directly to the enabling of achievement of one's full potential.

Community is identified as both contributor and recipient of the benefits of each person's achievement of health and potential. These dimensions of 'being well' resonate with concepts of healing, empowerment and resilience, both healing and whole sharing the same antecedents. Healing and health are both from the Old English word 'hāl' (c.f. 'hale') meaning wholeness; i.e., being whole, sound or well; and 'hale' comes from the Proto-Indo-European root 'kailo', meaning whole, uninjured, of good omen². Achieving one's 'full potential' is deeply connected to Aboriginal understandings of identity, belonging, culture and spirituality.

Struggles and synergies with psychological and public health pursuits

Psychology – the study of the 'psyche' or the mind – is one health-related discipline that, among Western disciplines, most closely aligns with social and emotional well-being, identity, meaning, self-actualisation and the broader concept of well-being. These underlie the many approaches to psychotherapy and counselling and have been extensively explored by progressive thinkers, including Carl Jung, Abraham Maslow, Carl Rogers, Urie Bronfenbrenner and Eric Erikson³.

Psychological, medical and public health research has tended to emphasise objective rather than subjective experience and focused on what is perceived to be 'measurable' rather than the personally "known" and individually 'felt'. Only recently has psychological care been included as a government-supported Medicare item⁴. Furthermore, difficulties in the defining and measuring of complex entities such as identity, spirituality, empowerment and wellness have entrenched their relative neglect in the dominant discourse within health sciences. Advances in their understanding have nevertheless continued in psychology as well as in philosophical and sociological realms.

Maslow and others championed a new branch of psychology called humanistic psychology in the 1950s, focusing on self-actualisation – what it means to grow and achieve one's full potential as a human being⁵. Aboriginal and Torres Strait Islander Australians, and indeed Indigenous peoples globally, have consistently maintained holistic concepts that health and well-being are inextricably bound with the concept of achieving one's full potential; achieving one's full potential is equivalent to being well.

In a similar way to Maslow and the humanist psychologists, Rappaport, Zimmerman and many others established the branch of community psychology which embraced the study and practice of empowerment and well-being at organisational and community levels. By recognising the dangers of

inequality, this field strove from the outset to merge science and values from predominantly external services, towards leadership and players involved in correcting disadvantage, to the people who actually experience the disadvantaging circumstances and their consequences⁶. Community psychology is underpinned by the ecological model (described below) and dedicated to defining collective identity and empowerment as valid and powerful approaches towards public, social and environmental health improvement.

Despite this progress, it is still true that these promotion approaches remain relatively poorly funded in research and implementation as compared to those leading towards individualised biomedical treatments, focused behavioural therapies or the maintenance of tertiary settings. Similar statements can be made of the disparity in investment between curative medicine over public health promotion and prevention research and action.

Ironically the highly technical field of neuroscience is contributing substantially to our knowledge about previously poorly understood aspects of psychology. This field holds great potential in bridging gaps between objectivity (seen as 'hard' and 'real') and subjectivity (sometimes perceived as 'soft' or 'imagined'). Similarly the mainstream landscape of public health has changed substantially with recent recognition of mental and emotional ill health as a major component of the global and Australia's burden of disease.

Identity, spirituality and belonging to community and culture

As expressed in the Aboriginal definition of health, Indigenous people globally tend to share the view that health is not simply about the individual. 'It is about the family, the community and those that we live with in our broader society. It is about how we are ourselves, and the safety and security in knowing who we are and where we belong'⁷.

Without a sense of identity and belonging, there is no grounding for which people can find meaning and purpose for living their lives – no matter who they are or where they come from⁸. Indigenous people have consciously built identity and belonging on a foundation of spirituality. As Kipuri states, 'spirituality defines the relationships of indigenous peoples with their environment as custodians of the land; it helps construct social relationships, gives meaning, purpose and hope to life. It is not separated but is an integral, infused part of the whole in the indigenous worldview'⁹.

Identity and belonging provide a sense of well-being. Identity is an underlying principle that is extremely complex and has gained substantially from sharing perspectives across multiple discipline lenses, e.g., psychology and neuroscience, developmental science and philosophy¹⁰. We could easily add disciplines of public health, spirituality and theology, sociology and cultural studies, arts, literature, history, etc., as significant contributors to the understanding of who we are.

Whatever disciplinary lens is applied, or even through the lens of our everyday life, people ask themselves the questions of, 'Who am I?' 'Where did I come from?' 'Why am I here and what makes me the person that I am even as I change over time?' 'What makes me tick?' and 'What keeps me together despite the challenges?'

Thus it is equally important to acknowledge the process and outcomes of the 'identity work' that every person, organisation and community experiences each day as everyday life, as boundaries and things we enjoy are negotiated, meanings made and actions taken. What does this say about who we are? According to Erikson, these social interactions contribute to our identity development throughout the whole life cycle. Indigenous knowledge approaches have been particularly insightful in terms of articulating the gap between what is written and said about people through an external cultural lens, and how people born and living within families, cultures and communities view their identity¹¹.

Chandler *et al* have extensively researched developmental stages of identity using the concept of self-continuity among First Nations Canadians and non-Indigenous Canadians. They have recognised different patterns typically used by individuals to explain how he/she can be one and the same person throughout life despite many changes experienced along the way. They also found that often people

experiencing suicidality could not provide any explanation or envisage themselves in the future. They also progressed this understanding at community level, discovering a direct relationship between numbers of indicators of cultural continuity across British Columbia's First Nations communities and rates of youth suicide¹².

Culture is thus an all-encompassing phenomenon which identifies people as unique and related within the broader Australian and global context. Indigenous cultures typically place Land, language, spirituality and collectivity at the core of identity and perspective and express these within their Indigenous knowledges, traditional wisdom and social institutions¹³.

Kipuri highlights the immeasurable losses faced by Indigenous populations across the globe and the continuing consequences:

Losing access to their lands and territories ... makes indigenous peoples feel deprived of their material and spiritual sustenance. Traditional livelihoods are discontinued, traditional knowledge lost, rituals linked to the land or ancestral spirits can no longer take place, and social disintegration is often a result¹⁴.

Without a deep understanding of Aboriginal and Torres Strait Islander spirituality, many Australians are not equipped to fully understand the extent and continuing consequences of loss, disempowerment and grief that have affected Indigenous Australians since the first Europeans arrived.

Australia's health gaps currently stand out and are internationally noticed as among the worst in developed countries¹⁵.

However, the Apology to Australia's Indigenous Peoples, moved by the then Prime Minister Kevin Rudd and supported by the then Opposition Leader Brendan Nelson in 2008 demonstrated significant understanding of the magnitude and implications of such loss. An equally significant act responding to the need for all Australians to feel welcome and belong to the Land was the historic Welcome to Country provided by Ngambri Elder, Aunty Matilda House¹⁶. To belong, in the traditional Aboriginal sense, means to enjoy, respect and take responsibility for the health of the whole nation, its place and peoples, in a manner consistent with the Indigenous definition of health.

Taking up this challenge, the subsequent 'Close the Gap' efforts give Australia a strong, well-defined direction that, if followed through comprehensively and sustainably, potentially position the nation as an international leader. The challenge, as always, is in the implementation process itself, which requires unwavering commitment to empowerment and self-determination – each being as important as the outcomes themselves.

Here, we can call attention to the renowned Ottawa Charter for Health Promotion. Some 25 years ago, this document obtained agreement across nations to embrace the promotion of peace, shelter, education, food, income, a stable eco-system, sustainable resources, social justice, and equity within an all-encompassing framework. Health action was urged, to empower people, organisations and structures to meet these basic needs¹⁷. Reflecting now with our 'modern' problems of inequality, obesity, chronic diseases and environmental challenges, all of which have a most dramatic impact on Aboriginal and Torres Strait Islander peoples, the wisdom of this approach is even clearer. Taking a health and well-being promotion approach allows the harvesting of energy and such basic human strength as that which emerges from happiness, well-being, collective effort and achievement.

Much remains to be done to fully realise the Charter; and done in such a way that empowers – 'doing with as opposed to doing for' – Aboriginal and Torres Strait Islander peoples¹⁸.

Healing and resilience

Resilience is a word often used to describe the capacity of an individual, group or society to survive and bounce back in the face of trauma, crisis or constant adversity. It is closely related to

empowerment and includes the concept of protective factors. It is another concept that is attracting attention and emerging through a range of inquiries at multiple levels.

Working definitions for resilience in research are sometimes based on a lack of impact associated with trauma or more rapid return to 'normal'. Some evidence has indicated that people who are fully 'resistant' to the impact of trauma may emerge from crisis and return to normal life largely unchanged. This differs from people who are 'resilient' – those who do experience trauma emotionally and personally but emerge through the process with feelings of growth and strength as a result¹⁹.

A narrow view of the legacy of colonisation in Australia may suggest a setting with no hope or potential for empowerment. Policies such as to 'smooth the dying pillow' and the Stolen Generations were in part the response to the view that Aboriginal peoples and their cultures were 'doomed'²⁰. However, the fact is that Aboriginal peoples and their cultures have survived. Ironically, despite or, in some cases, stimulated by these struggles, Aboriginal people and communities often demonstrate outstanding strength, resilience and creativity^{21 22}. The severe challenges seem to encourage deep exploration of the values embedded in culture, family inter-connectedness, respect and caring, traditional wisdom and dedication to positive collective change. Reports and policies frequently highlight these empowering strengths and values, but there is little research examining their impact to ensure they are taken seriously in practical action on the ground.

The concept of healing has now received considerable acceptance by the national government. The former Aboriginal and Torres Strait Islander Social Justice Commissioner, Dr Tom Calma, led a process that highlighted the urgent need for healing as a means for Aboriginal and Torres Strait Islander peoples to move forward and for Australia to reconcile its past. In the *Social Justice Report 2008*²³, The Commissioner reflected on healing, drawing on a number of sources:

Indigenous concepts of healing are based on addressing the relationship between the spiritual, emotional and physical in a holistic manner. An essential element of Indigenous healing is recognising the interconnections between, and effects of, violence, social and economic disadvantage, racism and dispossession from land and culture on Indigenous peoples, families and communities²⁴.

Submissions received by the Social Justice Commissioner for the 2008 Report included a range of insightful descriptions of healing; such as:

At its heart healing is about restoring balance where wrong has been done, - a spiritual process that includes therapeutic change and cultural renewal. It is about protection and care for the victims of violence and abuse as well as the development of correctional services for perpetrators that are based on healing and change, not stigmatisation and shame²⁵.

Healing is an education process of awakening, learning about the self, having an ever-deepening self-knowledge and a returning to wholeness that leads to transformation, transcendence and integration. It happens through the experience of safety, community support, re-building a sense of family and community, using ceremony and strengthening cultural and spiritual identity²⁶.

What is happening now?

The issues underlying Aboriginal and Torres Strait Islander health are many and broad. While some may suggest that this background is rhetoric, others argue that if we do not step back and consider what is really going on and deepen the foundation of our understanding and effort, we will only continue to chip slowly away at problems one by one, and may even go backwards.

A worrying example of this is the recent finding that although some important declines in infant mortality have occurred in recent decades, major inequalities remain.

One such example, summarised in the Australian Institute of Health and Welfare's Headline Report on children's health, development and well-being, shows that Aboriginal and Torres Strait Islander children are:

- '2-3 times as likely to die as infants or due to injury, to be born with low birthweight, or to be developmentally vulnerable at school entry
- 5 times as likely to be born to a teenage mother
- 8 times as likely to be the subject of a child protection substantiation
- between 20-30% less likely to meet national minimum standards for reading and numeracy²⁷.

This information reflects conditions not only at birth, but also across childhood and into adolescence and child-bearing years. It does not augur well for the fundamental social and environmental conditions required for healthy pregnancies and healthy starts to life.

This poses many questions about what we are doing and how we are doing it, which should be deeply considered. Efforts to fundamentally realign our core approach should not be dismissed as polemics, political correctness or rhetoric.

Thus at the local level, there is a real challenge for the many groups working in the area, and indeed in the academy generally, to consider, 'What can we do best with the time and resources we have under these circumstances?' There are many opportunities in Aboriginal and Torres Strait Islander public health research and education; local academic units must be supported to continue to lead such translational efforts into future practice.

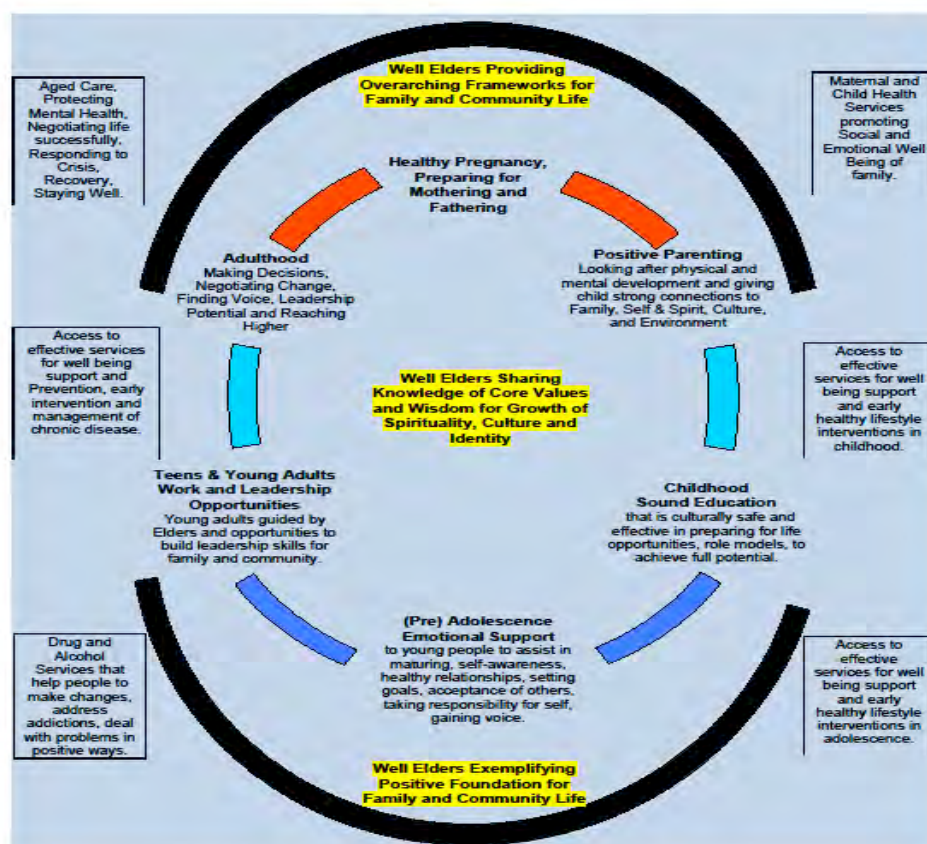
One example: the actions of Muru Marri

The Muru Marri Indigenous Health Unit was established in 2005. While it is small, it has, through its students, collaborators and critical friends, a much larger reach than its size might suggest and it enjoys strong support and encouragement within the School of Public Health and Community Medicine. In 2009, the Unit developed a second five-year strategic plan to guide its teaching, research, service and innovation activities for 2010 to 2014.

The Unit has set itself the task of serving the perspectives so far outlined in this paper. In so doing, we have recognised the need to establish a strong focus on what we do best and understand this approach will achieve the most sustainable outcomes. Towards this, the Unit constantly seeks to maximise synergies within its own core activities (research, teaching, service and innovation) as well as in the collaborative efforts it invests in. Hence time, energy and linkages are considered its crucial resources.

The Unit is heavily committed to an 'across the lifespan approach' in its work, with an emphasis on healing, empowerment and resilience as a means to assist groups in key transitional life stages. This is illustrated in Figure 1 as a circle without a beginning or end. This image serves as a reminder that while there is often need to focus and work separately with groups under particular stress (e.g., young people, mothers, Elders), there is also an indivisible need to always consider the concept of whole community wellness, as it is embedded in the Indigenous definition of health and that now echoes across the Aboriginal and Torres Strait Islander policy and research literature.

Figure 1. Illustration of the concept of empowerment and well-being across the lifespan that guides the Muru Marri Indigenous Health Unit's teaching, research and service activities



Source: This diagram was developed over several iterations by Melissa Haswell, Rachael Wargent, Teresa Gibson and Lisa Jackson Pulver

The Unit uses the following Key Themes to guide its activities:

- Focus on key transitions in the lifespan: Mothers and babies, pre-adolescents to adolescents, youth to young adults, adults to elders
- Work alongside 'with' not 'for' organisations and communities
- Address urban issues alongside rural and remote
- Start from 'strengthening strengths', not correcting deficits
- Prioritise wellness, well-being, sense of belonging and voice more than absence or prevention of disease
- Enhance data quality and use to inform, demonstrate, advocate
- Do empowering research as we research empowerment as a strategy for solutions.

Thus our research seeks to assist groups to develop a deeper understanding of their own identity and be able to recognise and use their strengths and celebrate their achievements; to embrace these skills to cope with and take steps to improve their situations and be stronger within their organisations and communities.

We seek to synergise these concepts across our teaching, research and service activities working alongside partners within services and organisations that are committed to achieving better outcomes through these same principles.

Conclusion

We hope this paper stimulates thinking across fields. It argues that Aboriginal and Torres Strait Islander health within a public health and community medicine framework focused on well-being provides an ideal platform for realising energies and synergies in practical application. All need to go hand in hand with broader, strengths-based promotion approaches at group and population level, growing in voice and action, in order to face the very complex and difficult issues we face. No area of public health is more important than advancing the health and well-being of Aboriginal and Torres Strait Islander people across the lifespan.

Acknowledgments

We recognise the Land we live and work on as belonging to Aboriginal and Torres Strait Islander peoples. There is no place in Australia where this is not true.



Lisa Jackson Pulver is Principal Research Fellow (Hon), at Neuroscience Research Australia. She is committed to researching and improving capacity building for Aboriginal workers and improved health status for Aboriginal people. The innovative nature of her work includes partnership with co-investigators in both Indigenous adult health studies and child health studies and in relating current adult health status to childhood and life-cycle risk factors, in particular to major socio-economic factors affecting cognition and behaviour.

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Economics-Informed Policy can Drive Better Health but there will be Few Gains without Structural Change

Leonie Segal, Kim Dalziel, Ron Donato

Introduction

Economics can contribute to a more healthy society in several ways. At core are two key roles; i) using well developed models of priority setting to establish where investments in health (and other portfolios) need to be directed to yield greatest gain in health and well-being for resources allocated and ii) investigating the policy drivers that are needed to achieve and support desired resource shifts.

The first task addresses 'allocative efficiency' which concerns the optimal mix of health and welfare services, but also equity objectives, concerning the distribution of health across society, as a separate contributor to well-being. The second task concerns 'dynamic efficiency', which is about ensuring the policy levers and incentives are in place that will direct system participants – consumers (patients, citizens, families) and providers (clinicians and agencies) – to make decisions that in their own best interest are also in the best interest of society. That means creating structural arrangements and financial (and other) incentives that align private interest with societal interest. Dynamic efficiency also requires that decisions about service mix and delivery models respond to changing evidence of what works and what is cost-effective, as well as societal needs and preferences. Economics also addresses issues of technical efficiency, delivering services at least cost, without compromise to quality.

The question to which this paper is addressed is whether the current reform process will better support evidence-informed policy and thus contribute to better health and well-being.

Priority setting

Economics has well-established approaches, known under the broad term of *priority setting*, for determining where to redirect societal resources to maximise health and well-being. Taking evidence of what works gained from clinical trials or similar studies, economists determine the relative benefits to society of investing in alternative programs to establish which interventions will yield greatest gains relative to cost. There are several priority setting models in the published literature, all of which provide frameworks for comparing the value of competing interventions, with the purpose of informing health policy. These models include The Population-Wide Priority Setting Model^{1,2}, Generalised Cost-Effectiveness Analysis³, Programme Budgeting and Marginal Analysis⁴, Assessment of Cost Effectiveness^{5,6}, Comparative Cost-Benefit Analysis⁷.

All the approaches to *priority setting* are underpinned by simple rules of logic – that society will be better off by preferentially funding interventions that have more favourable returns on investment (given benefit reflects societal values) and defunding those that yield lower net benefits.

Formal priority setting processes have been integrated into government regulatory requirements for funding pharmaceuticals in Australia through the Pharmaceutical Benefits Advisory Committee (PBAC) and in the UK through the National Institute for Health & Clinical Excellence (NICE) (for a wider range of services). These systems make explicit the choices to fund some interventions and not others, with decisions based at least in part on formal considerations of cost-effectiveness.

Three economic evaluation methods are typically used in priority setting: cost-effectiveness analysis in which performance is expressed in 'natural units' (e.g., cost per case of child maltreatment prevented⁸); cost utility analysis where performance is expressed as incremental cost per quality adjusted life year (QALY) gain (a composite measure of quality of life and life years⁹), and cost benefit

analysis where performance is expressed as net present value (discounted monetary value of downstream benefits less downstream costs/cost savings) or return on investment^{10 11}.

But for priority setting to be able to deliver greater health for society, a number of conditions need to be met:

- i. the priority setting models need to be broad enough in scope to include all interventions that may contribute to the program objective to ensure potentially efficient solutions are not excluded from the choice set. (e.g., the Australian PBAC system does not have a mechanism to compare pharmaceuticals against other modalities such as lifestyle interventions, undermining the integrity of this process; Segal et al 2010)
- ii. the methodology for assessing benefits and costs must be inclusive of all possible benefits and costs; otherwise recommendations will be compromised. For example, a narrow definition of outcomes (say, restricted to the immediate health impacts of the individual), will disadvantage interventions that have wide ranging impacts (beyond health, beyond the immediate target and which extend over time); favouring those, such as pharmacological, where outcomes are narrowly and well-defined (Dalziel & Segal, 2010)
- iii. there must be funding systems and incentives in place for evidence translation; such that those interventions that are found to be of greatest value can be expanded, whilst those that are less cost-effective can be contracted. As discussed below, this represents a major failure of the Australian health and welfare system, where funding and delivery arrangements severely compromise the system's ability to respond to evidence.

The next section deals in more detail with the ability of health system and governance structures to respond to evidence generated through frameworks such as priority setting.

Health system reform

Structural Failures of the Australian Health System: Notwithstanding the relative success of publicly financed health systems in addressing macro-level cost containment and equity of access, allocative efficiency typically remains elusive^{12 13}. In Australia this failure is driven by the fragmented nature of health funding across program areas, institutional barriers and bureaucratic rigidities. These create perverse incentives such that behaviours of actors in the system will not be in the societal interest. Moreover, there are no clear mechanisms for decisions to reflect new evidence, except via knowledge exchange, which is a weak translation method, especially where structural barriers discourage resource shifts. These problems have been highlighted for decades^{14 15}.

Thus even though the Australian health care system performs well by international standards, in terms of mean life expectancy, there are institutional and structural features peculiar to the Australian health system, which are a source of increasing tension. The division of responsibilities between the Commonwealth and states in the funding and delivery of health care and program-based funding has resulted in a highly fragmented and uncoordinated health system, characterised by cost and blame shifting and unresponsiveness to evidence or consumer preferences. These create significant barriers to access to integrated health and welfare services or to the optimal multi-disciplinary team¹⁶. The report of the NHHRC reiterated the conclusions of previous health system reviews that performance improvements are unlikely to be achieved without structural reform to funding and delivery responsibilities and the introduction of accountability processes¹⁷.

These structural barriers are most problematic in relation to the more complex problems that require a whole of government or cross-portfolio approach. The seriousness of this failure is illustrated by the problem of protecting our most vulnerable children, those at risk of abuse and neglect, for whom a cross-portfolio approach is critical but undermined by funding and delivery models. See Box 1.

Box 1 Improving health and well-being for vulnerable children

Evidence in the area of child protection indicates that in order to prevent child maltreatment a cross-portfolio approach is required. This reflects the highly complex nature of the issues facing the most vulnerable families, which include access to secure housing, income support, mental health and drug and alcohol problems, history of violence, low education, high rates of teenage pregnancy and close birth spacing.

An example of an effective intervention are Children's or Family Centres which operate as a central hub to build relationships with families and offer services that reflect the wide-ranging needs of this most vulnerable group. Ideally these centres will offer high quality early childhood education, but also intensive parenting and family support, housing assistance, drug and alcohol counselling, health consultation and advice¹⁸. However introducing such a model in Australia is extremely difficult. Funding and delivery and accountability models require collaboration across many portfolios and program areas – such as health (adult, child and youth), housing, mental health, child protection and justice. And whilst there will be budget savings these will be realised at various times into the future and differentially to portfolios in a way unrelated to the investment from that portfolio. This requires a whole of government approach, and a structure that offers flexibility in program development and delivery that can reflect the current evidence base. In Australia we do not have a history of working together in this way.

Another example is perhaps the most common program for preventing child maltreatment, infant home visiting. Our systematic review and program-logic theory-driven analysis performed on over 50 clinical trials found that whilst home visiting programs demonstrate very mixed results, the most effective tend to include more than just home visiting, target the more vulnerable families and were likely to include a 'whatever it takes' approach to assist families. This type of intervention drew in mental health, drug and alcohol, housing, employment and education support for vulnerable families. Programs such as these do not fit well within our 'silo' approach to funding. For example, while home visiting can reduce post-natal depression in women, within the Australian regulatory funding frameworks anti-depressant medication has a guaranteed funding route through the PBAC without having to demonstrate cost-effectiveness against other modalities. It is clear that structural rigidities limit access to some interventions which do not fall nicely within an existing funding silo whilst favouring pharmaceuticals which do¹⁹.

International health reform agenda: Internationally the response has been to devolve the responsibility for health care to regional level fundholders who purchase health services on behalf of enrolled populations, drawing from a capitated single pool of funds^{20 21}. This has been accompanied by a reorientation of health systems from acute institutional towards primary (and community) care and a focus on the prevention and active management of chronic disease. This has seen in several countries the establishment of Primary Care Organisations, fundholding groups that receive primary health care budgets on a needs-adjusted capitation basis to coordinate the purchase and delivery of health services for their enrolled populations. In theory, single fundholders become discriminating purchasing agencies seeking to purchase the most efficient services from competing providers to offer the most cost-effective mix of services to enrollees to meet their health needs. Purchasing decisions are more explicit and transparent as fundholders focus on what constitutes best value for money regarding the health care needs for their defined populations, adjusted over time to reflect new evidence. Economic theory suggests that the wider the scope of services included in the capitated funding pool, the greater the ability to substitute across programs and provide integrated continuity of care to maximise health outcomes in the most efficient manner. Population needs and consumer expectations can be explicitly incorporated into purchasing decisions²². Capitated funding also contributes to equity objectives, since health care funding and resources follow the patients and individuals with greater expected health care needs would attract greater capitated payments.

Other international reform features include clinical governance and accountability arrangements and pay-for-performance models to improve quality of care with mixed success.

Australia's health reform experience: The National Health and Hospitals Reform Commission report (NHHRC 2009) identified the need for 'one health system' and recommended that the Commonwealth take over funding and policy responsibility for aged care, primary health care and hospital outpatients

with states and territories continuing as providers of services under existing arrangements. It also advocated the Commonwealth take progressive responsibility for the funding of in-patient hospital admissions, based on 'efficient cost'. The NHHRC also recommended system redesign to strengthen primary care and facilitate service integration of health promotion, early detection and better management of people with chronic conditions and population health planning through the establishment of Primary Health Care Organisations.

A number of the recommendations of the NHHRC were adopted by the Council of Australian Governments (COAG) as described in the National Health and Hospitals Agreement released in April 2010. This agreement had the Commonwealth becoming the dominant funder of public hospitals and taking over all funding responsibility for primary care. However following resistance to some components of the agreement, a new COAG National Health Reform Agreement was adopted in July 2011. Under the new arrangements, the Commonwealth government becomes a 'partner' with state governments in funding public hospitals, (rather than the dominant funder), contributing 50 per cent of the *increase* in the efficient growth of funding for public hospitals. Also, rather than take over full responsibility for primary care, the Commonwealth will take a 'lead' responsibility for system management, funding and policy development, working in 'partnership' with state governments. Supporting the Health Reform Agreement, the Commonwealth is committing \$1.6 billion to the hospital sector to reduce emergency and elective waiting times, funding a large expansion of sub-acute beds and allocating an additional \$1.2 billion to general practice and primary care, mainly for the establishment of more GP super clinics. Over \$1 billion is going into an expansion in GP and specialist training positions and for practice nurses. Other infrastructure investments include \$700 million to develop a personally controlled eHealth system record.

In addition Local Hospital Networks (LHN) are to be established as separate legal entities, involving the clustering of a small group of public hospitals with a geographical and functional connection, to be managed by a local governing council. State governments will set hospital performance benchmarks and targets through service agreements, with in theory LHNs deciding how best to meet their defined targets. Through the new reform agreements, Commonwealth and state government funding for public hospitals will be allocated to a single National Health Funding pool, from which payments will be made to LHNs using nationally-determined activity based formula.

The reform package also involves the establishment of a network of independent primary health care organisations known as Medicare Locals, with the stated intention of fostering strong links within local communities, between GPs and other primary care professionals to 'improve access to care and drive integration between services'. These new organisational structures will build on existing Divisions of General Practice. They are expected to work closely with LHNs and other primary health care providers as well as aged care services to foster integration.

Box 2 A bio-psychosocial model of health for chronic disease management

A research program exploring the health workforce mix to support the delivery of best practice care in chronic disease management has found that clinical practice guidelines and current workforce mix reflect a narrow medical model, which is not consistent with the health care needs of the community^{24 25 26}. Effective self-care is a key element of successful chronic disease management, but the need to support patients experiencing threats to self care is not adequately recognised in the primary care team structure. Threats arise from social, emotional and mental health issues, physical or intellectual disability, literacy or cultural issues. So long as such issues are not identified and funded as core work of the primary care teams, the health of those with multiple disadvantages will continue to be compromised. This reflects a failure of evidence-based policy at several levels: first, clinical practice guidelines tend to reflect archetypal but atypical patient populations; second, the prevailing medical model paradigm entrenched in primary care and uncontested, and the predominant fee-for-service funding model that privileges medical services (plus some practice nursing and limited allied health), means that even where the value of a broad primary care team is recognised, it cannot be supported.

A National Health Performance Authority is also to be established, with responsibility for developing and introducing Hospital Performance Reports for LHNs and Healthy Community Reports for Medicare Locals as part of a new Performance and Accountability Framework.

Notwithstanding the substantial funding boost to the health care system, the absence of structural change to funding arrangements undermines the ability of the reforms to deliver benefits. It represents

an expensive package but one that is likely to compound existing inefficiencies. Health financing is still to be directed to health services based on pre-existing professional and discipline and program boundaries. In the absence of capitated fundholding or third-party purchasing capabilities, Medicare Locals can only operate as advisory agents to work 'closely with GPs and Local Hospital Networks' to 'make it easier for patients to navigate the local healthcare system'. Lacking any mechanism for promoting integration, continuity of care or a more efficient health service mix, and with pre-existing structural barriers in place, the service system will remain unresponsive. Distortions which currently plague the health system will remain. The 'reforms' may rather further entrench distortions, for instance with the centrality of the general practitioner and the medical model of health again privileged. This is suggested by the narrow medical focus of the workforce policy²³, retention of the fee-for-service and program-based funding arrangements and no mechanisms to support multi-disciplinary let alone cross-portfolio, family-centred approaches.

So, despite growing evidence of the centrality of the bio-psychosocial family-centred model of health (See Box 2) to improving health overall and to addressing Australia's very large health inequalities, nothing in the proposed health reforms will support such a shift.

The way forward?

Whilst the role of Medicare Locals under proposed arrangements is extremely limited, the opportunity may exist to have their functional capabilities enhanced over time. Medicare Locals could, for instance receive capitated funds to purchase a limited range of primary health care services for their populations and as technical skills and capabilities developed, more comprehensive fundholding responsibilities, covering a broader range of health services could feasibly be extended. This would need to be accompanied by a genuine means for community engagement in setting priorities and in the type of service response.

Whilst in theory, current reforms could be used as a platform upon which ongoing incremental health policy adjustments could be built, this seems unlikely. Such reforms involve major shifts in power sharing, if the health and broader human service system is to work in a way that reflects the health needs of the population. Thus, despite an increasing understanding of the core influence of social factors on health and well-being, captured in part in the social determinants debate, medical model dominance is being further entrenched. Thus, despite strong evidence emerging from several disciplines of the absolutely crucial importance of the early childhood environment on current and on-going health and well-being²⁷ which demands a focus on families and social and emotional support (in part to address histories of trauma), the necessary progress in structural reform to facilitate a cross-portfolio response seems no closer. There is also mounting evidence concerning the need to adopt a 'whole of health' approach in chronic disease that covers prevention and management, and draws on services beyond the medical model, beyond the clinical approach and beyond health. As the limitations of the medical model are most profound for persons experiencing greatest disadvantage, the chances of closing the large health gap are remote as long as structural factors prevent the adoption of a bio-psychosocial model of health.

There are small pockets of genuine health and human services reform that can indicate a way forward. Examples are easier to find in regional and remote communities, where there can be greater flexibility in how community need is met. Often there are not the same vested interests to contend with and staff are typically able to work in a more flexible and cross-portfolio way. Examples include the Expanding Health Service Delivery Initiative in the Northern Territory and the agreement of the Queensland government to transfer delivery of health services to Apunipima Cape York Health Council both involving some primary care funds pooling and greater community control of primary care. However, even with these examples bureaucratic hurdles and other structural barriers are undermining progress with planned reforms²⁸.

The work of the Washington State Institute for Public Policy (WSIPP, see Box 3) illustrates what an economics-informed policy can achieve if the state is prepared to take a whole of government approach to the human services sector and act on evidence-based policy advice.

Box 3. The Washington State Institute for Public Policy

The WSIPP (www.wsipp.wa.gov/) was established by the Washington State Legislature in 1983 to directly guide legislative decisions on health and welfare issues of relevance to Washington State. The guiding principle was the use of objective evidence in the conduct of comparative economic evaluation, drawing on relevant high quality evidence across the human service domains, and paying attention to comprehensive modelling of immediate and downstream consequences. To date the WSIPP has completed around 30 major priority setting exercises with each study drawing on the full international literature for evidence and typically including dozens of interventions/programs. The public issues covered include education, criminal justice, programs for youth and children in out of home care.

This work has directly influenced policy, and consequent health and welfare outcomes, as well as budgetary impacts. The key features of this system that support evidence-informed policy are: i) the setting of areas of inquiry is based on the specific needs of the population and of government, ii) those requesting the evidence are in a position to implement change, so the Legislature has both the authority and ability to implement evidence-based recommendations by taking a cross portfolio approach to decision making iii) the evidence search and economic evaluation is of high quality and; iv) there is a rigorous approach to monitoring outcomes resulting in policy change where appropriate.

In sum, priority-setting frameworks offer a coherent approach for developing an evidence-based investment strategy, in a way that can engage policy makers and potentially support the critical funding decisions needed to drive better health for society. The potential gains in terms of health and well-being, in reduction in health inequalities and in budget savings from adopting a more efficient evidence-informed approach to funding of health and human services are very considerable. However, the resource shifts indicated by the evidence simply cannot happen without structural change, and unfortunately structural change always involves some alteration in power and remuneration, with currently powerful vested interests supporting the status quo.

Moving forward will require community interest to triumph over vested interest, so that a genuine cross-portfolio approach can be established in which health and human services can compete on an equal footing for a regionally focused primary care/human services budget.



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Subjective Wellbeing as Key to a Healthy Society

Robert A. Cummins

Introduction

In its 2011 report, the Australian Institute of Health and Wellbeing reinforces alarming statistics, common to all OECD countries, regarding public health expenditure. It reports such expenditure, in Australia in 2008–09, increased by 5.5 per cent on the previous year and that such growth has averaged 7.3 per cent per year since 1999–2000. Clearly this trend is not sustainable. It is therefore timely to consider more efficient forms of expenditure for the greater public good. One lead into such thinking involves subjective measures of wellbeing.

Over the past 35 years a large research base has been created in relation to subjective health, that is, how people feel about their health. Such a measure has been incorporated into national surveys of health in Australia¹ and is typically measured through a question such as ‘How satisfied are you with your health?’ When measured in this form, health satisfaction is a life domain, embedded in a mutually-dependent matrix of personal feelings about life in general, which aggregate to a construct called Subjective Wellbeing (SWB).

Research into SWB has led researchers to understand that objective and subjective measures behave quite differently from one another and are generally only weakly inter-related. Importantly, physical health cannot be used to infer health satisfaction. The reason, we propose, is the management system called SWB homeostasis^{2 3 4}.

Subjective Wellbeing Homeostasis

The theory of Subjective Wellbeing Homeostasis^{5 6} proposes that, in a manner analogous to the homeostatic maintenance of body temperature, SWB is actively controlled and maintained by automatic neurological and psychological processes⁷. The purpose of SWB homeostasis is to maintain a normally positive sense of wellbeing that is generalised and rather abstract. It can be measured by the classic question ‘How satisfied are you with your life as a whole?’ Given the extraordinary generality of this question, the response that people give is not based on a cognitive evaluation of their life. Rather it reflects the deep, stable, positive mood that is the essence of SWB. It is this general and abstract sense of positive mood which homeostasis seeks to defend. As a consequence of homeostatic maintenance, subjective wellbeing has some interesting characteristics.

The stability of SWB at the level of population sample mean scores is remarkable. The Australian Unity Wellbeing Index has been used to monitor the SWB of the Australian population since 2001 using the Personal Wellbeing Index⁸. A total of 24 surveys have been conducted from 2001 to 2010, each involving a new sample of 2000 people⁹. All results are standardised to a 0 to 100 scale and, using the survey mean scores as data, the average of these surveys is 75 points with a standard deviation of 0.8 points.

To explain this positive stability in SWB, it is proposed that each person has a set-point for their SWB that constitutes a genetically determined, individual difference; see, for example, Lykken and Tellegen, 1996¹⁰. We propose, on the basis of empirical deduction¹¹, that the range of set-points within large normative samples is from 60 to 90 points, with a mean of 75. We also calculate that each set-point range has a width of about six percentage points on either side of its mean. Homeostatic processes seek to maintain SWB within this set-point range for each person.

While SWB is normally held positive with remarkable tenacity, it is not immutable. A sufficiently adverse level of challenge can defeat the homeostatic system and, when this occurs, the level of subjective wellbeing falls below its homeostatic range and this is likely to signal depression¹².

However, under normal levels of challenge, homeostatic processes maintain SWB within its set-point-range for each person through three levels of defence we call 'buffers'.

The first line of defence is behaviour. People are generally adept at avoiding strong challenges through established life routines that make daily experiences predictable and manageable. However, strong and unexpected events will inevitably occur from time to time. Such events will shift SWB out of its normal range, as attention shifts to the emotion generated by the event. Such deviations from the set-point range will usually last for a brief period of time, until adaptation occurs. Adaptation to unusual positive challenges is very predictable and well understood¹³. Adaptation to negative challenges is less certain but is assisted by the buffering capacity of the two 'external buffers', relationship intimacy and money.

Of these two external buffers, the most powerful is a relationship that involves mutual sharing of intimacies and support¹⁴. Almost universally, the research literature attests to the power of good relationships to moderate the influence of potential stressors on SWB^{14 15}.

Money is also a powerful external buffer, but there are misconceptions as to what money can and cannot do in relation to SWB. It cannot, for example, shift the set-point to create a perpetually happier person. Set-points for SWB are genetically determined^{16 17 18} so in this sense money cannot buy happiness. No matter how rich someone is, their average level of SWB cannot be sustained higher than a level that lies towards the top of their set-point range. People adapt readily to luxurious living standards, but genetics trumps wealth after a certain level of income has been achieved.

The true power of wealth is to protect wellbeing through its use as a highly flexible resource¹⁹ that allows people to defend themselves against the negative potential inherent within their environment. Wealthy people pay others to perform tasks they do not wish to do themselves. Poor people, who lack such resources, must fend for themselves to a much greater extent. Poor people, therefore, have a level of SWB that is far more at the mercy of their environment. One consequence is that their mean SWB is lower than average.

While the external buffers assist with homeostatic management of SWB they are not always successful. If these defences fail, then the experience of SWB moves outside the set-point range and, when this occurs, it is proposed that the internal buffers are activated.

The internal buffers comprise protective cognitive devices designed to minimise the impact of personal failure on positive feelings about the self. Such devices have been variously described as Downward Social Comparisons²⁰, Secondary Control²¹, Benefit Reminding²² and Positive Reappraisal²³.

A detailed discussion of these internal buffers in relation to SWB is provided by Cummins and Nistico²⁴ and Cummins et al²⁵. Internal buffers protect SWB by altering the way we see ourselves in relation to homeostatic challenge, such that the negative potential in the challenge is deflected away from the core view of self. The ways of thinking that can achieve this are highly varied. For example, one can find meaning in the event ('God is testing me'), fail to take responsibility for the failure ('it was not my fault') or regard the failure [dropping a fragile object] as unimportant ('I did not need that old vase anyway').

In summary, the combined external and internal buffers ensure that subjective wellbeing is robustly defended. There is, therefore, considerable stability in the SWB of populations and, as has been stated, the mean for Western societies like Australia is consistently at about 75 points on a 0 to 100 scale. But how is Subjective Wellbeing composed?

Homeostasis is defending HP Mood

Most contemporary theorists regard the composition of SWB, obtained through a verbal or written response, to involve both affective and cognitive components. This was first recognised by Campbell, Converse and Rodgers²⁶ who suggested in 1976 that the amalgam should be measured through questions of 'satisfaction'. The research community has followed their advice and this form of

question has since become standard for SWB measurement. However, relatively little research has examined the relative contribution of affect and cognition. Whether, as claimed by Diener, Napa-Scollon and Lucas²⁷, SWB represents a dominantly cognitive evaluation, is moot. Indeed, to the contrary, more recent research^{28 29 30} weighs the balance strongly in favour of affect, in the form of a deep and stable positive mood state we refer to as Homeostatically Protected Mood³¹.

We propose that HP Mood comprises a blend of hedonic (pleasant) and arousal values (activation). The studies above show that SWB is highly saturated with HP Mood. We therefore propose that a genetically-generated level of HP Mood provides each person with a unique level of felt positivity, which constitutes an individual difference between people. This level represents their 'set-point' and is the level that SWB homeostasis seeks to defend.

Normal ranges

A major implication of homeostasis is that it should be possible to create normal ranges for SWB. Two kinds of normal range can be generated, one for individuals and one for normative groups.

The range for individuals is presented within Cummins et al in their 2010 study. Section 2.12 in that publication describes the combined data set derived from 24 independent national surveys conducted between 2001 and 2010 in Australia. SWB is measured through the Personal Wellbeing Index and the number of respondents is 48,225. Their mean is 75.19 points, the standard deviation is 12.40, so the normal range defined as two SDs around the mean is 50.39 to 99.99 points. Thus, the normal range for individuals fits the positive sector of the standardized 0 to 100 range.

The normal range for groups is derived by using the survey mean scores as data. Thus, combining the 24 survey means yields a grand mean of 75.17 points, an SD of 0.76, and a normal range for groups of 73.65 to 76.69, which is a range of just 3.04 points. However, this range has been achieved through the use of constant methodology and a stable population. When the criteria for data collection are relaxed, the range naturally expands. Cummins in 1995 and 1998³² determined that the normal SWB range for Western nations is 70 to 80 points, while the range for a broader set of countries was determined as 60 to 80 points. This applied equally for single item scales ('satisfaction with life as a whole') and multi-domain scales.

Method

In order to systematically monitor the SWB of the population, a partnership was established in 2001 between Deakin University and Australian Unity, a health, finance services and retirement living company. The monitoring instrument used for this purpose, the Personal Wellbeing Index³³ measures SWB through the average level of satisfaction across seven life domains as: health, personal relationships, safety, standard of living, achieving in life, community connectedness, and future security. The first index survey, of 2000 adults from all parts of Australia, was conducted in April 2001. A total of 25 such surveys had been conducted to April 2011.

Each survey involves a fresh, geographically representative national sample of people aged 18 years or over who are fluent in English. People are surveyed by telephone in a seven to ten minute interview.

A detailed report is constructed from the results of each survey and these reports can be downloaded from the Australian Centre on Quality of Life website at Deakin University (<http://www.deakin.edu.au/research/acqol/auwbi/survey-reports/>).

Which are the most important life domains?

Given the enormous financial resources provided to support health in Australia, it is relevant to ask which subjective domains would yield the largest payoff in terms of lifting population wellbeing if they were supported at a national level. Three kinds of data will be presented to answer this question and all require some understanding of the Personal Wellbeing Index.

The PWI has a unique construction. It comprises a set of life-areas (domains) selected on empirical grounds to best represent the first-level deconstruction of satisfaction derived from the item 'How satisfied are you with your life as a whole'. This single question, devised by Andrews and Withey³⁴ is the most commonly used measure of SWB, and has the desirable characteristic of being both highly personal and abstract. As we have argued elsewhere³⁵ these two characteristics form the essence of the SWB construct. Thus, the criterion for inclusion for each PWI domain is that they individually contribute unique variance, in a multiple regression, where all seven domains are used to predict 'satisfaction with life as a whole'.

Each domain is rated by respondents on a 0 to 10 end-defined scale³⁶ anchored by 'completely dissatisfied' (0) and 'completely satisfied' (10). The scores are then combined across the seven domains to yield an overall Index score, which is adjusted to have a range of 0-100.

Since the topic for this issue of *Dialogue* centres around health, it is of interest to examine the relative importance of this domain in the construction of SWB. Surprisingly, it is found that this domain has relatively low relevance. The first demonstration is shown in Figure 1. Here, the vertical bars denote the normal ranges of the PWI and each constituent domain. The crosses show the mean values as averaged over our surveys. The data have been drawn from Widows and Widowers, one of our demographic groups, selected because they are frequently medically compromised due to advanced age.

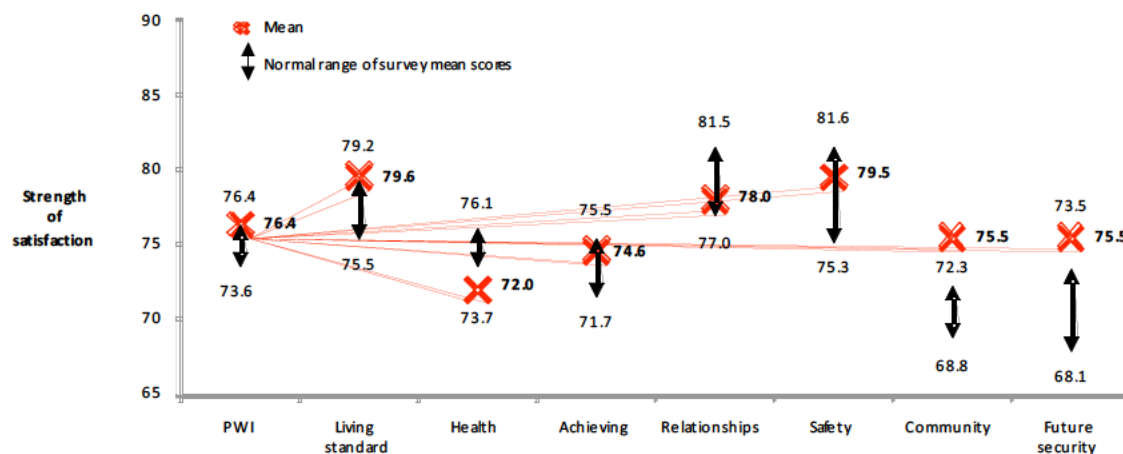


Figure 1: Widows and Widowers: Personal Wellbeing Index Domains

Despite having a Personal Wellbeing Index at the top of the normal range, the level of satisfaction with health for widow/ers is below normal. This anomaly exemplifies the relative unimportance of health as a determinant of SWB provided that other domains can compensate. Here, the most strongly compensating domains are Standard of Living, Connection to Community and Future Security. Of these, Connection to Community shows the highest level above its own normal range (3.2 points).

A second form of examination uses multiple regression to examine the relative contribution of each domain to Life as a Whole (LAW). The construction of the PWI, described earlier, is such that the seven individual domains have been selected on the basis that they contribute some unique variance to LAW. While most of the variance linking these domains is the shared variance of HP Mood (Cummins, 2010), the amount of unique variance is a measure of the relevance of each domain to SWB. An example of a multiple regression testing this proposition is provided in Table 1.

Table 1:

Regression of Seven Domains against Life as a Whole (Survey 17)

Variable	LAW	1.	2.	3.	4.	5.	6.	B	β	sr ²
1. Standard of living	.568**	.						.285**	.286	.054
2. Health	.371**	.355**	.					.062**	.074	.004
3. Achieve in life	.595**	.459**	.375**	.				.280**	.315	.064
4. Personal relationships	.443**	.309**	.240**	.391**	.			.133**	.175	.025
5. Safety	.298**	.311**	.256**	.245**	.236**	.		.023	.024	.001
6. Comm. connect	.323**	.293**	.195**	.313**	.261**	.325**	.	.037*	.043	.001
7. Future security	.436**	.460**	.272**	.418**	.271**	.425**	.377**	.070**	.079	.004
R ² = .511								Total explained unique variance		.152
Adjusted R ² = .509								Total explained shared variance		.357

** p<.001

The sr² statistic represents the proportion of unique variance contributed by each domain. It is calculated as the square of the 'part' statistic that can be requested from the social sciences statistical analytics program (SPSS) in association with a multiple regression. When this value is multiplied by 100 it gives the percentage of unique variance contributed by the item. Thus, satisfaction with standard of living contributes 5.4 per cent of unique variance within the total 50.9 per cent explained variance for this sample.

The strength of contribution by individual domains is concentrated in three domains which are Standard of Living, Achieving in Life, and Relationships. These three life areas account for 14.3 per cent of the total 15.2 per cent unique variance. The domain of Health contributes just 0.4% unique variance.

The third technique to determine the relevance of life domains is to study domain sensitivity within population groups which have the highest and lowest wellbeing. Report 16.1³⁷ presents an analysis of cumulative data from 15 surveys. The total number of respondents is about 30,000 and the aim of this report is to identify the demographic sub-groups with the highest and the lowest wellbeing.

The sub-groups were created through combining the demographic variables of Income, Gender, Age, Household Composition, Relationship Status and Employment Status. While not every combination of demographic variables could be tested due to limitations of cell size, the total number of combinations analysed was 3,277. The SWB of each of these groups was calculated and screened for extreme scores.

As a result of this analysis it was concluded that there are two central defining characteristics of people forming the extreme high wellbeing groups as living with a partner and a high household income. The central defining risk factors for people forming the extreme low wellbeing groups are not living with a partner, very low household income, and unemployment.

Within each of these three analyses it is evident that, on average, the domain of Health plays a relatively minor role in the construction of SWB. On the other hand, the three life domains of relationships, money and achieving in life dominate SWB. Thus, these three domains could be targets of public intervention strategies with a view to raising population SWB.

The power of wealth

When people have insufficient income to defend themselves against ordinary sources of stress, they become vulnerable to low wellbeing. Their resilience is reduced by the paucity of their monetary resources and, if homeostasis is defeated, the control of satisfaction levels pass from homeostasis to the challenging agent. When this occurs, SWB falls and depression becomes likely. So, how much money do people need as an effective buffer?

A universal finding within the literature is that the relationship between income and SWB exhibits diminishing returns. This is demonstrated in Figure 2, based on the cumulated results from our surveys. It shows the relationship in a novel way, by calculating the cost of raising SWB by one percentage point from different levels of household income. At the lowest income levels interpretation is contaminated by the multiple disadvantages experienced by people in the group, such as unemployment, being a single parent, having significant disability, being an informal carer, etc. Notwithstanding this, the trend is compelling. At the lowest income level an additional \$15,000 buys 2.5 percentage points of wellbeing @ \$6,000 per point. From an income of \$15-30,000, it takes an additional \$20,000 to buy one percentage point. This changes only marginally up to \$61-100,000, at which point the graph starts to become exponential.

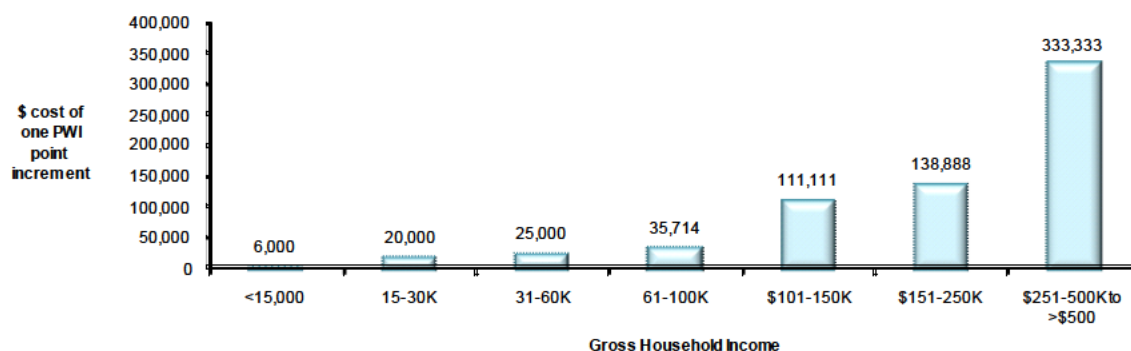


Figure 2: The cost of purchasing a percentage point of SWB

In summary, additional SWB can be purchased at a discount when household income is low. However, above an annual gross household income of about \$100,000, increased income is a very ineffective way to increase personal wellbeing. This is an important perspective for considering the optimal distribution of wealth in society.

Relationships and the sense of achieving in life

Two crucial buffers to normal SWB maintenance are an intimate relationship and a sense of achieving in life. These variables are combined in Figure 3. The horizontal yellow bar indicates the generic normal range of SWB. The groups selected for comparison are those likely to be high in a sense of life purpose (full-time employed) and low in life purpose (unemployed). Each of these groups is compared across the categories of marital status. The data used to compile this figure are cumulative across our surveys³⁸ and the following points can be noted.

The married/employed have a level of SWB 1.0 points above the normal range. This is due to the buffering influence of marriage as both a relational and a financial resource.

Unemployment is devastating to SWB, with all marital status groups lying below the normal range. The most severely affected are separated and divorced. They not only lack a partner but also likely have low income.

The other three groups are less affected: the married group are buffered by the relationship with their spouse, the never married are buffered by their youth, and the widows and widowers are buffered by having a higher income and being of older age (see Figure 1).

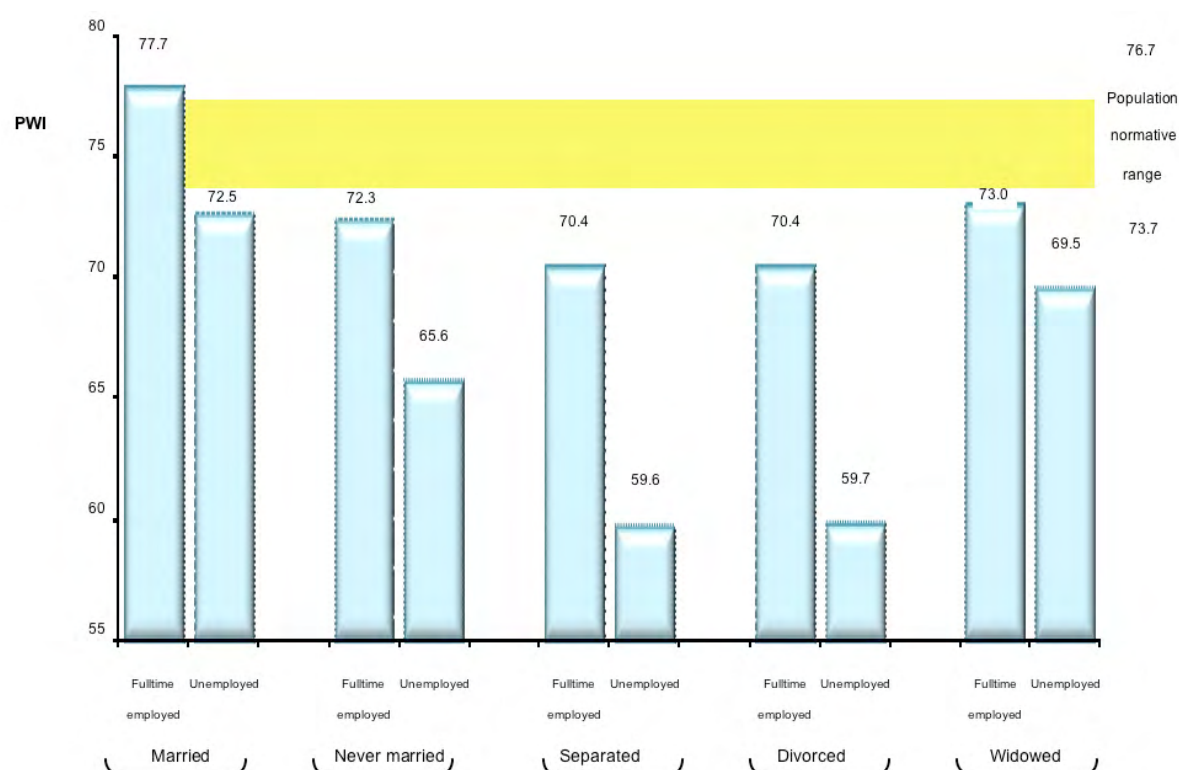


Figure 3: Marital Status vs. Employed/Unemployed: **Personal Wellbeing Index**

Of course, household income will interact with these results and is likely to be a strong contributor to the low wellbeing of some groups. In order to demonstrate this interaction Figure 4 shows the pattern of SWB as influenced by marital status and income.

The groups that do the best are Married and Widowed. Both groups enter the normal range at the lowest income level (<\$15,000). In contrast, people who are separated or divorced do not achieve the normal range even with an income of \$101-150,000. People who have never married enter the normal range at \$101-150,000.

What these results indicate is three routes to achieving a normative level of personal wellbeing in Australia. One is through becoming old (widows and widowers). Another is through a compatible partner. If people are married they can achieve normative status even at the lowest level of household income. If they do not have a partner, then the external resource of money is an alternative means of achieving normative status (Never Married). In these comparative terms, the presence of a partner roughly equates to about \$100,000 per year for people with no partner. The third route is through employment or some other activity that gives a sense of achievement.

Conclusions

These results indicate three key domains in relation to population wellbeing, other than health. The first two are having sufficient money to meet basic needs and having a societal role which gives a sense of achieving in life. In relation to these, government intervention is generally regarded as a good thing. Governments are expected to maintain high levels of employment, a reasonable minimum

wage and social security net. Curiously, however, in relation to the third and crucial area of relationships, government intervention is viewed with mistrust.

This is surely a worthy topic for discussion. The fabric of our society is changing, as exemplified by the fact that people increasingly avoid marriage³⁹. While a few will live with their partner de facto, many more will live in single-person households. Indeed, the proportion of such households now forms from one third to one half of all households in most Western cities. Moreover, the marriages that do occur are more likely to end in separation or divorce than ever before. These trends are all negative in relation to SWB. People who live alone are at risk of low SWB, especially for males, while divorce and separation have devastating consequences (Figure 4). The loss of relationship support for the separated adults, compromised parental support for their children, and subsequent financial hardship are all conducive to social alienation. It is a curse of development and prosperity.

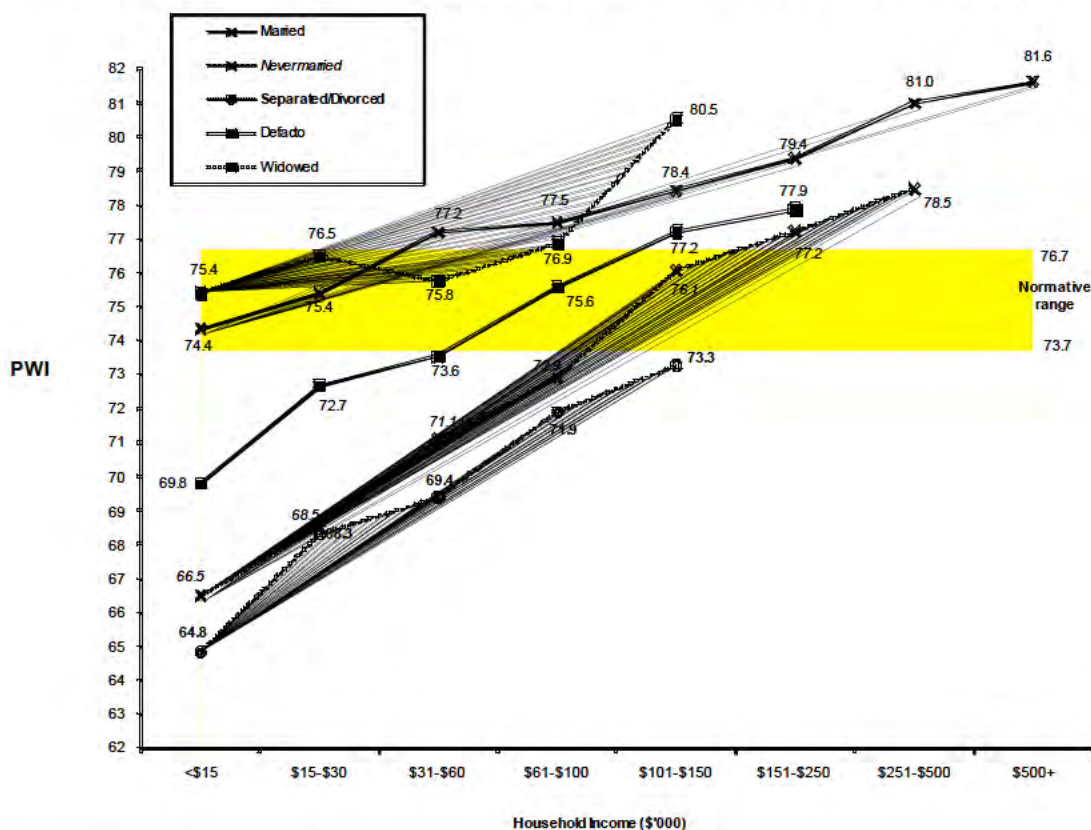


Figure 4: Income x Relationship Status

In less developed and less prosperous societies, families are multi-generational, match-makers do their best to ensure marriage for everyone, high social capital ensures societal cohesion, and supportive relationships are taken for granted. Now, in the absence of all these institutional devices we must rethink how we manage intimate relationships in our society. Reconsidering the imperative for ever-better physical health at the expense of relationship enhancement may be a good start.

In summary, the ever-increasing expenditure on health means less expenditure on other areas. This might be justified if health was the most crucial contemporary area for population wellbeing in Australia. But it is not. A healthy society implies much more than medical health. If the government was to consider raising population SWB as a national priority, it should redirect resources to the life areas crucial to normal wellbeing, which are personal income, achievement and relationships. This would not only raise national wellbeing but also help to sustain a truly healthy society.

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Professor Robert A. Cummins has held a Personal Chair in Psychology at Deakin University since 1997. He has published widely on the topic of Quality of Life and is regarded as an international authority in this area. He is a Fellow of the International Society for Quality-of-Life Studies and the Australian Psychological Society. He is on the editorial board of nine Journals and is an Editor of the Journal of Happiness Studies. His research concerns quality of life theory and how such understanding can be used to improve the life experience of people who are disadvantaged.

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Rethinking 'the Human': in Memory of Fay Gale (AO)

Kay Anderson

Introduction

My attempt inspired by Fay Gale to get to grips with the rise and resilience of that discourse of human differentiation called 'race' has, during the course of a journey across social science and humanities disciplines, become something of an intellectual passion. This has to do not only with the unfortunate material impacts of the race concept, meted out in rampantly diverse forms of racism to those reckoned to be on its 'wrong' side. There is also intrigue in the very *peculiarity* of the race idea itself. How, or why, – in the face of such vastly differentiated gradients of phenotypical, physical and cultural variation as have always existed the world over – did such a deterministic conception of difference come about? What made possible the intelligibility of the idea that the rich diversity of the world's people could actually be fitted into racialised categories? And, notwithstanding the 'Obama factor' that inclines some contemporary commentators to tell us we are in 'post-racial' times¹, why the persistence of 'race' given the idea of a divided human family was supposed to have been laid to rest by Darwin some 150 years ago? And if not buried by Darwin's claim for a shared human inheritance, then why was the notion of racial difference and hierarchy not silenced by the claims of population geneticists some 60 years ago?

The usual answers given to such questions have been as various as they are numerous over a succession of generations. Characteristically, the resilience of race is tracked to some impulse of people (whether anxious or assertive) to ethnocentrism and prejudice or, in more recent critiques, to some ideological will for power and identity of certain people over others^{2 3}. In what follows, however, the case will be put that such answers struggle to match the explanatory burden they have been required to bear. This will be elaborated later, in the examination of some rather fundamental western premises through which a concept of innate human difference got its very footing at a certain historical juncture. So, while decades of postcolonial critique of western ideas of progress, civilisation, modernity and developmentalism, e.g., classically Fabian in his 1983 study⁴, have helped unsettle the ground in which that concept of fundamental difference became buried, there's arguably more work to be done, and new conversations to convene, in sharpening race's theorisation. Hard ontological work, it turns out, is at stake. Yet the hunch – or at least hope – is that the effort is worthwhile more generally, to help overcome blockages that stand in the way of the deeply integrative thinking needed to advance intercultural dialogue in the 'post-colony' of 21st century Australia.

Of most interest in this respect, for a geographer by training, is a move that engages a starkly defining knowledge demarcation. Most classically, this is the divide between the domains of human affairs and environmental affairs. The subject of race (like class and gender) has long been positioned in the former, that is, human sociological affairs. In the latter, environmental affairs, the human characters typically enter a stage they affect from outside as variously masters, managers, observers, guardians, or saviours. Most generally, then, this analysis dwells at the interface of the domains of society and nature, where its narrative interest lies not only in a re-theorisation of race; but in provoking a more open disposition to the very possibility of reparation across the split knowledge domains of society versus environment, and of culture versus nature.

Interfaces, scratching at the door of seemingly settled truths, writing from the margins: here I conjure the figure of Fay Gale who was the person who fanned the sparks of restless curiosity and conviction at a formative educational stage. Fay was born a geographer. As a young – it is said dyslexic – girl, she enjoyed reading maps more than words, and was always interested in the evidence of the world around her. Her school teachers remarked on a keen attraction to the immediate qualities of places and landscapes, the raw material of knowing, of *being there*. She was a formidable walker as I was to find out when she skived off for two days as Vice-Chancellor at The University of Western Australia to drive us to a former Aboriginal mission run by Benedictine monks. It was a trip that took us inland

from Perth, with numerous punishing treks on foot that she demanded of us both while she ardently lectured on the singularity of the physical and cultural layers of landscape before our eyes.

The week-long field trips she ran as a teacher at the University of Adelaide were transformative experiences for her undergraduate and Honours students. I was one of those students, and take the opportunity here to honour this person who left her mark on my life and work.

Fay Gale's Geography

They say that what matters most about our tombstones is not so much the two dates marking our beginning and end, but the tiny dash that lies in between them. In the case of Fay Gale (1932–2008), there is much that is condensed in that dash; so many contributions compressed across different fields and sectors. Fay's intellectual influence is the focus here, and it is fitting there be a lecture series in her memory because although none of us really know the reach and impact of our work, Fay was fortunate to live long enough to see her demonstrable influence on the trajectories of many of the students she taught at The University of Adelaide. Some space will be devoted, therefore, to capturing a sense of the 'compass' Professor Gale set her students.

It was palpably obvious to a cohort of we students from the whiter than white suburbs of Adelaide in the 1970s that Fay, the teacher, was promoting a new sort of Geography at the University of Adelaide⁵. Her version of Geography stood at an angle to the prevailing scientific and quantitative modes of enquiry of the time. Her courses were a self-styled synthesis of strands of human and physical geography, a Geography that sat at the interface of 'culture' and 'environment'. This was a subject that in the Australian context had, for Fay, to acknowledge the continent's distinctive environmental features *as well as* the landscape imprints of diverse cultural orientations, or 'ways of seeing' the world, of the people who populated it⁶.

It was neither fashionable nor respectable geography at the time. There was resistance from the geomorphologists and climatologists in the physical geography camp, and there was reservation from the quantitatively-driven spatial scientists in the human geography camp. Of this opposition, and her determination in the face of it as the only female professor for many years at the university, I was to find out more later on. But as a geographer-in-formation – and here can be included other students, for example Gale and Jacobs⁷, Jacobs⁸, Richard Baker⁹ and Joy Wundersitz¹⁰ – we were captivated by her creative thinking with 'interfaces'. Her work dwelt at the intersections of, as stated above, the physical and human worlds; the real and the humanly perceived worlds. In an essay for the Australasian Society for Human Biology published 20 years ago¹¹, she urged more dialogue between 'culture and science'. One of her examples was the case of indigenous knowledge about caves on the Nullabor Plain and the knowledges of karst geomorphology, as just one science that had to adapt itself to the shifting evidence of the timescale for the human occupation of this continent.

There were other awkward intersections, too, on which Professor Gale's geographic imagination lit, such as the often opposed realms of 'city' and 'Aborigine'. Her book *Urban Aborigines* published in 1972¹² which grew out of her Honours and PhD research on so-called 'part-Aborigines', was an original exposition of people she met while travelling around remote South Australia in the 1950s and '60s. These people had migrated to towns after generations of restricted lives on reserves. They did not fit the mould of supposedly 'real' Aborigines – by which was popularly meant at the time, traditional or desert people, who had caught so much attention from Australian anthropologists after Durkheim's writing at the beginning of the 20th Century. There were certainly encouraging anthropologists, however, especially William Stanner at The Australian National University. He was struck by Fay's immediate interest in people like her own foster sister, Edna Oosting, who lived with Fay and her Methodist missionary parents in suburban Adelaide. These were people who were *not* of a time 'back then' or a place 'out there'. They were neither 'black' nor 'white' and instead living on the fringes of both those groups; people who Fay could see were so excluded precisely because they were doubly invisible.

Ever the one to teach from the heart, using the tools of evocation and empathy to connect her students to others' lives, times and policy moods, as much as the more respected pedagogic tools of expertise and erudition, Fay instructed us in culture's geographies not only with lectures on theory (e.g., Carl Sauer's theories of culture's evolution disseminated from the Berkeley School of Cultural Geography in the United States). She would also deploy strategic anecdotes of people and place, however mundane, often using the art of juxtaposition, such as one (I still recall) about an Aboriginal boy from Arnhem Land who stayed at her family's house when she was a teenager, and how struck she was in watching him – barefoot, refusing shoes – negotiating the concrete pavements of her city neighbourhood. The pragmatist that she was, Fay would never 'do' theory for its own sake and in any event was not content to see Australia through the eyes of the global North. She preferred, in her defiantly particularistic way, to think *with* the landscape that she said 'grew her up'.

So, again, by way of example, she would teach us about the phenomenon of spatial segregation, not only with the abstraction of maps replete with overlays of correlations between census variables. She would also shift register, and enliven accounts of the disjunctures in the likes of the biography of her own foster sister, who had been caught up as a 'stolen child' in Australia's earliest genetic engineering project. Spatial segregation thus became dramatised for her students – never in the manner of a crusade and always using a pseudonym – as a spatialised sequence of life journeys: from Edna's Northern Territory camp site where she lived until age nine; to a compound in Darwin; to a missionary dormitory on Croker Island until the late 1950s; then dispersal south with Edna's circulation through the missionary networks to which Fay's parents belonged during the policy shift to 'assimilation' in the 1960s; and from there to life in suburban Adelaide where she grew up with Fay until her eventual reunion with – if not ever her parents – at least a brother she had not seen in 50 years.

A teacher's legacy, a pupil's path

Fay's chosen themes, then, cut across disciplines, including Geography, Anthropology, History, Politics, Women's Studies and more. Her intersectional thinking and her vividly situated imagination was what I, as one of her students, carried away to further study in the 1980s. Under the influence of a philosophical turn to post-structuralism that was embraced in Geography at The University of British Columbia, I produced a conceptualisation of Vancouver's Chinatown as an enclave that reflects more about the West than the East. Specifically, *Vancouver's Chinatown*¹³ tracked western cultures of race and racism in the Canadian context, their changing Orientalist stereotypes, and their material impacts through three levels of a government so proud of its apparently progressive multicultural record vis-a-vis the nation to its south. This work of critique, in the classic vein of what later came to be called 'identity politics', demonstrated that neither the racialisation of people's identity was fixed at birth nor the racialisation of places like Chinatowns was cast in stone. Instead, both were processes situated within the vectors of colonialism and global migration.

More recently, though, I became convinced that one can get only so far in interrogating the sources and resilience of that grid of human differentiation called 'race', if one remains within the frame of 'identity politics' encapsulated in the Chinatown study. Elsewhere are detailed some limitations of that framework, so suffice to state that sourcing racialised power to a white will to identity and domination can tend to leave that will inadequately problematised (see more below). This does not by any means discredit the 'critical turn' in race theory, as reiterated elsewhere¹⁴. However, precisely *because* the idea of race furnishes such pernicious demarcations in so many diverse settings, there is a case for pursuing *additional* genealogies and theorisations. At stake is a move beyond the terms in which race is usually considered; that is, as stated earlier, beyond the terms that confine it to an inter-human or inter-subjective dynamic of identity politics. Equipped with new theoretical tools taken from science and technology studies, the ecological humanities, and 'naturecultures' geography, the intuition to be pursued requires thinking across those distinctions of society and environment, culture and nature, that were noted earlier.

*Race and the Crisis of Humanism*¹⁵ began an ongoing effort to think of race as a discourse on the human. Substantively, that work tracks the colonial disturbance that was 'Australia' – its people and place – to Christian Enlightenment notions of 'the human', eliciting the crisis induced by British colonial encounters with a place that bore no apparent trace of what was assumed to be the capacity of all people everywhere to separate themselves from nature. The book's narrative plot thus centres around the colonial confusion that the Australian 'state of nature' presented to prevailing ideas of what it meant to be human: namely, to be exceptional in the sense of being above or beyond 'nature'. Nature was conceived as an external non-human world of environment 'out there', and internally, as a composite animal baseness that people imagine themselves to have transcended. Theorising the rise of racial discourse, from Australia, the book then tracks this confusion into increasingly deterministic elaborations of the race idea that came to prevail in the 19th century.

Lying at the back of that story – a 'southern' story in the sense of Connell's 2007¹⁶ intervention that Fay Gale would have admired in its caution against western knowledge's universalising ambition – was a curiosity that keeps getting re-stimulated in the Antipodean field described above. It has been a long-standing curiosity about the logic and sources of ideas of human separateness from nature, and in particular from those sentient beings we gather together under the umbrella category of 'animals'. The intrigue led me to reading variously 'post-humanist' philosophies that acknowledge the problem of distinguishing human and animal; recognising that while, yes, humans as a species are unique, this is no 'unique sort of uniqueness'¹⁷ and more popularly still, to Gray's¹⁸ argument that the differences between human and nonhuman species are comparable in genetic terms to those that separate nonhuman species from each other. So the query to stress here is not with the difference of people as a species *per se*. This is self-evident and non-controversial. Rather it is to trouble the sense in which human difference is typically conceived as a *qualitatively* distinct kind of difference; as belonging to a different 'order' with a special destiny on earth. Post-humanism (by now a disparate set of philosophies, see Wolfe¹⁹) thus calls to attention the all-too-familiar premise that people are apart from nature, rather than just a different part of it.

Merged with these reflections has been another intuition: that our persistently popular western ideas of autonomy from nature may have something to do with – what increasingly emerged from my close work in the field of race historiography – a particular idea of 'mind'. Now, characteristically, in western philosophy and theology, the idea of mind is traced to the twin premises of reason, dating back to the ancients and eternal soul, from religious texts, notably Genesis. Regardless of whether this attribute of mind is taken to be a force for good or evil, the entity of human mind itself is usually taken to be uncontroversial. It is inscribed as a kind of 'black box' that tends either to be reified or vilified, including by recent critiques in human geography which, in turning more to the emotional, or bodily, or material, aspects of culture, for example, Davidson, Bondi and Smith²⁰; Longhurst²¹; Boyle and Mitchell²²) have tended to avoid mind altogether.

This is not a criticism of the emotional, affective and bodily 'turns' in human geography, since there is much of novel and significant focus there. Instead it is to note the unintended effect that mind itself is left 'intact' as largely unproblematised. 'Mind' has come to appear even as a metaphysics that is presumed to have been the self-evident bearer of its own perpetuity. Characteristically, it is narrated (vaguely) as an inheritance of ancient texts; after which it is said to have been elaborated in biblical anthropology as 'soul'; then to have fused with the notion of 'reason' in the writings of Christian Enlightenment (see Peterson²³) to then persist through the trajectories of progress and modernity and beyond through (even) Darwin's claim for human evolutionary continuity with other species. For better or worse, believers and critics alike attribute people with a unique and privileged mental capacity among other beings. The characteristic of human mind thus becomes both cause and effect of humankind's myriad manifestations on earth, from the mundane to the complex, the devastating to spectacular. Indeed so comprehensively taken-for-granted is the idea of mind's inexhaustible efficacy that Bruno Latour²⁴ observes 'we have not moved an inch since Descartes [...] the mind is still in its vat, excised from the rest, disconnected, and contemplating [...] the world'.

If, however, we continue to maintain the unexamined premise that we realise our very humanity as we *overcome* nature, there is a risk of playing into the hands of the most recent advocates of the thesis of human exception from nature. One of these contemporary voices, Keenan Malik²⁵ states: 'we people possess a unique and self-evident ability to transform our selves, our natures, our worlds'. This is now 'confirmed', he states, 'not by any lingering Christian metaphysics, but by the entire trajectory of civilisation itself: from cave art to quantum physics and the conquest of space'. For him, civilisation marks humanity's triumph over the limits imposed by nature; it registers the existence of a uniquely human capacity to transcend nature that lies in our very own nature.

Such breathtaking certainty about human destiny no doubt informs the optimism of some today that there are no limits to the human inventiveness available to overcome the threat of ecological catastrophe. There is nothing, ultimately, to worry about. Armed with our technological prowess (read, intellect) we have the ultimate resource. The words of former (Liberal) member of the Australian parliament, Ross Cameron, capture this all-too-familiar refrain against what he calls the 'left orthodoxy story' of human-induced climate change: 'We mustn't get depressed by the hellfire gloom of those trying to scare us into submission. The story of life on earth is one of stunning resilience, abundance and diversity' (cited in *Sydney Morning Herald*, 19 November 2010). And rather different in political register, though not in moral tone, Tim Flannery, in 2010, anticipates the maturation of a 'global human intelligent super-organism' that will 'act as one' to secure a sustainable future²⁶.

But with the spirit of provocation that is called up by the figure of Fay Gale, a loud rattle can, and arguably should, be sounded in this fundamentally humanist cage. And it is with this purpose that this piece is to take a closer look at how this idea of the nature-transcending human came to endure. In particular: how did confidence in some human 'mental' capacity to separate from, and shape, nature come to be sustained in today's supposedly secular world? The tale is of far more than historical relevance at a moment when a significant minority of households work to achieve a carbon-neutral status – recycling domestic waste, using energy-saving light bulbs, turning down thermostats, refusing dishwashers, taking appliances off standby, and so on. Just as these practices signal the intensifying cultural collapse of the myth of human autonomy, so does the following account aim to frustrate one of the most defining fantasies of western-derived cultures well beyond Australia: that we realise our very potential as humans in taking distance from nature.

The major focus in what follows is the 19th century when emerged in a specific science of interest – that of craniometry – a quite specific formulation of mind as 'intelligence'. Later in the century, come Darwinism, the account shifts to the elaboration of mind as 'mental evolution'. It is a reading that all too briefly can be found to interact with 'race', and not incidentally but constitutively.

Thinking 'with' the head

Ordinarily, the relative significance attributed by critical race theorists to craniometry is traced to the idea – fully articulated by phrenologists at the end of the 18th century – that 'the skull housed the brain, as the organ of mind'²⁷. For history of science critics, Stephen Jay Gould²⁸ and Nancy Stepan²⁹, the privilege accorded to the head by 19th century race scientists is not in itself contentious or even really of interest. For Stepan, head measuring was an extension of the earlier Christian focus on skin colour. For Gould, the pernicious practice was symptomatic of 'the importance of mentality in our lives' (page 56). For him too, then, in classic critical race theory terms, craniometry was a case of instrumental power turning race and race hierarchy into innate states that justified the crimes – as indeed they were – that went on in their name.

But to fold 'the head' in this way into some inexhaustible trajectory of European othering is to gloss over the interesting specificity of the head in the fetishised calibration of human bodies that went on in this period. It is also to gloss over an intriguing time period that repays far more attention if the analytical optic on 'race' is reset to the wider horizon of 'the human'.

For this period of the late 18th and 19th centuries is precisely one in which the identification of the human's exceptional status with a metaphysical defining characteristic was being challenged. Ancient

and medieval accounts invoking the 'great chain of being' from angels to insects were more generally under pressure from the rise of science, empiricism, biology and especially anatomy. Scientists after Linnaeus's 18th century classification of people as 'part of the order of nature' were contending that 'the human' could and should be understood as a purely physical, rather than metaphysical, being. A new 'science of man' (as it was called), led by comparative anatomists such as George Cuvier, in 1802³⁰, was arguing that the human was one living being among others and thus its features – and the newly opened question of its uniqueness – ought to be the matter of a purely empirical scientific enquiry. Determining the character of the human in physical anatomical terms, then, became a major scientific project: with efforts to assess and compare the anatomies of people and animals (especially apes). But also – and arguably above all – the project at stake sought to determine the material existence of a distinctly human form of mind. Worded differently, the effort turned on an attempt to render 'reason' in anatomical terms.

This 19th century obsession with the head enrolled the skulls of the world's peoples, including so-called 'mad', degenerate, criminal and also some female skulls (mostly male skulls were used, see Elizabeth Fee's gender reading of craniology³¹; also Turnbull³²). The trafficking in remains together with the flawed calibrations of race science is, as mentioned earlier, ordinarily considered as just an instance – a thoroughly invidious instance – of scientific racism. Most recently for example Anne Fabian³³, delivers a vivid testimony of this science in the service of racial superiority in mid-19th century America.

To put things too succinctly, however, the possibility raised is that craniometry has to also be understood in the context of a concern to establish a new science of the human. For, in this context, the head acquired its significance insofar as it concentrated the intense 19th century controversy about whether the human was more than another animal; and whether (and how) this 'more' could be scientifically, which is to say anatomically, demonstrated. The following hypothesis thus presents itself as a way to condense the conjecture here: that racialised skulls were measured as part of an effort to determine the physical existence of mind. And *how* in methodological terms? By correlating the already 'known' levels of development of various peoples – and so, the already 'known' extent to which they were presumed to have exercised some distinctly human capacity of mind – with variations in the size and shape of their skulls.

The details of the craniometric project across diverse 'centres of calculation'³⁴ require a much longer and nuanced discussion (though see also Anderson and Perrin³⁵). For the purpose of this essay, it is sufficient to summon the instance of that notorious tool, the cranial index, which was used across many scientific sites to present craniometrical information in comparative form. In the United States, for example, the ranking of skull capacity that the index furnished was deployed famously by Samuel Morton in 1839³⁶, for whom 'the Australian' was assigned base position (while for other commentators 'the Hottentot' shared this position).

So in this speculative argument being proposed, the idea of innate racial difference and hierarchy emerges not only (after Fabian³⁷) from the 'riddles of race that troubled Morton's generation', but also, and arguably more precisely, out of a struggle to establish the physical distinction of the human life-form on earth. And, as such, racial discourse itself might be considered not only as an inter-subjective dynamic of power or identity politics (which of course it is), but more fundamentally as a discourse on the human. It was a discourse in which the very question of the distinctively human was at stake; and one in which this distinctiveness came to be formulated and announced. This is to invert the usual social science analyses that reduce invocations of the 'more or less' human, and also of the 'more or less' intelligent, to some ethnocentric impulse or will. It is to trace this impulse itself to a certain problematic of the human; more specifically, to the anxieties in the 19th century surrounding the cherished idea that the human is exceptional among beings.

These were anxieties that only intensified in the later 19th century period of evolutionary craniometry when the science that tried to read off 'intelligence' from head size and shape grew that much more fraught in the context of efforts to understand the human place in evolution. Alfred Russel Wallace³⁸

was one key scientist for whom race was invoked during this time; by then, in evidence for connection to a whole new human/animal problematic of evolution. Ideas of racial difference and hierarchy continued to find their constitutive convergence at the site of the human head, with intense study not only of head size and shape but also of brains and their interior hemispheres. Once again, too, 'the Australian' became a referential figure in the claim that the faculty of mind (as located in the skull) was the agent of a distinctively human evolutionary development – now called 'culture' no less.

And the madness of this frantic – but of course futile – search for some accurate correlation between physical features and some score of intelligence, becomes clear in the sheer variety of measures, indices, ratios, and instruments that craniometrists proposed as the 19th century progressed: including the facial goniometer, the cephalometer, the craniometer, the cranioscope, the craniophore, the craniostat, and so on. Such devices are all the more intriguing, too, in the interpenetration they install and evoke of 'the technological' and 'the human' in this wider account situated at the interstices of science and myth, society and nature, livingness and death.

Few scientific projects were to be as devastating for Australia's Aboriginal people as evolutionary craniometry. To be clear, this was a project that drew on stereotypes of indigenous and other people, in order to try and demonstrate the existence of a uniquely human mental capacity to surpass nature; a capacity which then came to constitute the very measure of what it was to be human. So while much scholarship, especially by historians and anthropologists, has already railed convincingly against the stereotype of Stone Age Man, e.g., Fabian³⁹ – taking issue in an appropriate culturally relativist way with the ethnocentrism of a western model of civilisation out of which head-measuring practices grew – the ontological manoeuvre at stake here is different. Strongly supplementary to those critiques, the purpose is to chip away at the peculiar ontology of 'the human' informing and shaping the craniometric project. The task is to prise open the gate that has been erected around the presumption, including in the apparently secular moment after Darwin, that to be human is to be the life-form that becomes itself in transcending nature.

Humanist discourses of urbanity today: the case of Sydney's Barangaroo development

While preparing this lecture, I came across an editorial in the *Sydney Morning Herald* by a Lord Richard Rogers⁴⁰ on the Barangaroo proposal for the western rim of Sydney's Central Business District. Lord Rogers is a British architect noted for his modernist designs, including of the Pompidou Centre in Paris and the new World Trade Centre in New York City. The headline announced proudly: 'Barangaroo to become a visionary portal'. And his editorial began: 'Cities are the grandest physical expressions of our humanity and are at the very heart of our culture'; continuing: 'Our design for Barangaroo brings the equivalent of a concrete backyard, a wasteland, back to life'.

Hyperbole is to be expected in the lead architect's bid to become the preferred proposal for the coveted site. Nonetheless I found myself pondering while digesting this editorial, along the following lines: from where stems the self-congratulatory tone, the bold confidence, of the likes of Lord Rogers? Must the most convincing rhetorical move still be, in this the 21st century, a triumphal narrative that thinks we have displayed 'the very heart of our culture' in surpassing what is otherwise merely, inertly, blandly, 'there' – as if without us to animate it, matter itself and by its very nature would be without meaning, or purpose, or coherence? Lacking, lifeless, dead; the very inverse of culture figured as vibrant, lively, creative⁴¹. I was moved to ask myself by the end of the editorial, and inspired in part by a projection from critics claiming to see in Barangaroo the 'worst of Dubai'⁴², as follows: How *can* there be change in the direction of a more sustainable form of human culture – beyond the now suspect modern investment in humanity's progressive control of nature – while we invest in such fantasies of nature transcendence, fantasies of precisely the kind this essay has been seeking to trouble?

The editorial triggered a sense, too, of the complacency in the conviction of today's human exceptionalists (mentioned above) for whom 'our unique ability to transform our selves, our natures, our worlds' is now 'confirmed by the entire trajectory of civilisation itself: from cave art to quantum

physics and the conquest of space'. Consider, too, Wesley J. Smith who asks, apparently rhetorically: 'What other species has transcended the tooth-and-claw world of naked natural selection to the point that, at least to some degree, we now control nature instead of being controlled by it?'⁴³ Perhaps it is also this vanity that prompts author Ian McEwan to state in an interview in the *Sydney Morning Herald*, 23 March 2010, about his recent book, *Solar*⁴⁴ that human ingenuity will save us from climate change.

There is also an uncanny re-gurgitation of the *terra nullius* myth by the good Lord Rogers of the rescue and redemption of an apparent wasteland that mutely awaits modern colonial 'improvement'. Twenty-two hectares of 'emptiness', in his words. But, if we probe, as has this lecture, the very premise that mind is the assured marker of a human distinction from nature; if, accordingly, Australia's inhabitants are forced to acknowledge some shared 'being-in-common' with the nonhuman world, are there fresh prospects for reconciling settler and indigenous values on this continent? One can hope so. Indeed within the Australian context, there has been a tendency to freeze the story of colonial racism in the narrative grip of inevitably antagonistic human identities, settler versus indigenous. It's a tale that usually depicts an irrevocable conflict of interests among power-differentiated groups of people. One need not dispute the truth-status of that tale in trying, as this essay has done, to pull 'race' from the sometimes polarising and stifling domain of identity politics in which matters of race are usually confined. It has done this by drawing race into a broader ecological concern with the multiplicity of relationships in which people are embedded. The suggestion follows: that the history of Australian colonialism has been as much bound up with the history of an incomplete 'secularisation' of the human⁴⁵ as it has been with inevitably opposed identities. Thinking through this lens is potentially transformative, politically and ethically, given that this history of our incomplete secularisation is one that implicates us all – settler, indigene, migrant. As such, it can be figured as the ground for more genuine inter-cultural dialogue at a time when all Australians face the collective challenge of negotiating the terms of a new relationship to their environment.

Conclusion

Fay Gale would, I hope, have been intrigued if not impressed by this way of figuring the 'shared space of Australia'⁴⁶, as she described the surface of this continent in a Cunningham Lecture for the Academy some years ago. Her holistic style of Geography certainly predisposed me to recognise that our entanglements and responsibilities as people cannot be contained within a conventional conception of a culture that is *opposed* to nature.

But my debt is deeper than an intellectual affinity, exposed as I was at an early age to a woman who taught, organised field trips, advised the government, managed staff and budgets, published, ran an international conference, supervised graduate students, and applied for grants to do still more. It is only as one scales the academic ladder that it is possible to grasp the humbling extent of Professor Gale's diverse achievements⁴⁷. Part of the key to her success was her exquisitely-tuned mix of personal and professional qualities. For me, these were a mix of compassion and coolness; a willingness to empathise but also to know when to detach; a matter-of-fact pragmatism combined with a deep respect for ideas and scholarship; a steely strength that was gracious; a charisma without pretension. From the creek-bed on the undergraduate excursion; to the lecture theatre at The University of Adelaide where a role model seemed to 'think' so productively with more than just her brain; to the Aboriginal mission at Hermannsburg on an honours field trip from which I returned with images of blighted lives never to be forgotten; to the Canberra base of the Academy of the Social Sciences in Australia where I had coffee with a president whose ethos seemed to encapsulate the very charter of that Academy; to the lobby of the Canberra hotel where we sometimes met while she presided over the Australian Vice-Chancellor's Committee; to the Paris headquarters of the UNESCO National Commission for Social Science where we celebrated her birthday when she was chairing its Australian sub-committee; to the airport lounge where she and I worked on *Inventing Places*⁴⁸, Professor Gale shaped the character and direction of my life – as she did so many students who went on to pursue a range of professions. Fay leaves an inestimable legacy that is not possible to squeeze

into the mere words of an essay, but I write for countless others in thanking and paying tribute to her regardless.

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Academy News

Australia-France Joint Action Program

Alcohol consumption and related behaviours among Australian and French university students

Lynlea Simmonds

The following report provides a summary of my visit to France in February 2011 to discuss a collaborative project investigating alcohol consumption and related behaviours among Australian and French university students. The study aims to explore how consumption patterns, alcohol-related behaviours and health and social outcomes are determined by individual, psychosocial, contextual and broader cultural factors. The objective of the visit was to seek contributions and expertise from French research partners regarding study design issues and protocols, project timetable and funding options.

I was hosted by Professor Roger Salamon's team at the Institute of Public Health, Epidemiology and Development (ISPED) within the University Victor Segalen Bordeaux 2. Meetings were held with Professor Salamon's team and the following issues were discussed: project background including French and Australian alcohol culture and differences in university structures, Phase 1 (internet questionnaire) and Phase 2 (in person interviewing) of the project, design, content and distribution of study questionnaire, ethical issues, participant inclusion criteria, project timelines and how to accommodate differences in semester timing when considering recruitment and data collection and possible funding opportunities. The meeting outcomes and action items were as follows: 1) Aim to complete final draft of internet questionnaire and small pilot study with students over the next few months, and 2) submit grant applications to obtain funding for the Australian component of the study in the first half of 2011.

During my visit, I was involved in a range of other activities including: visits to the University Student Health Centre, attendance at relevant seminars run by ISPED, review and discussion of previous research conducted by the University of Bordeaux, and meetings with researchers from other organisations (Bordeaux School of Management) who were also interested in collaborating on the student alcohol project.

The visit was productive, worthwhile and achieved the specified objectives. On behalf of the University of Adelaide research team, I would like to thank ASSA for their financial assistance. The visit to France allowed us to strengthen the collaborative relationship with the University of Bordeaux and to make significant progress in the design of the study. I would also like to thank the staff of ISPED and the Student Health Centre for hosting me, in particular Professor Roger Salamon, Dr Sylvie Maurice-Tison and Dr Luc Letenneur. We look forward to our ongoing collaboration with Professor Salamon's team.

Innovative methods for forecasting the size and demographic structure of ageing populations, with applications to Australia and France (Second Year)

Heather Booth and Sophie Pennec

Dr Sophie Pennec of the Institut national d'études démographiques (Ined) visited the Australian Demographic and Social Research Institute (ADSRI), Australian National University, in December 2010 to March 2011 to work with Associate Professor Heather Booth. Collaborative research focussed on several activities. The first was discussion, data update and completion of the paper on forecasting French mortality, fertility and net international migration and their use in probabilistic population projections. This is the first stochastic population forecast for France using state-of-the-art methods and software developed in Australia.

Using data from the ANU-based project on Dynamic Analyses to Optimise Ageing (DYNOPTA), Dr Booth and Dr Pennec explored the relationship between changes in partnership status and changes in self-rated health. They also both continued to make significant contributions to capacity-building and the further development of the DYNOPTA microsimulation model. This model of the risk factors of health and their effect in an ageing population is a joint activity of NATSEM (University of Canberra), ADSRI and the Centre for Mental Health Research (ANU).

Dr Pennec took also the opportunity afforded by this visit to attend the 2010 Australian Population Conference and to hold discussions with NATSEM colleagues about some issues related to the APPSIM microsimulation model, which she helped to develop during previous visits.

Discussions were also held regarding the development of a new research proposal on demographic microsimulation. This three-year proposal would significantly increase capacity in demographic microsimulation in Australia, and would involve six to eight researchers at ANU. It is planned that Dr Pennec will play a significant capacity-building and research role in this activity.

The financial assistance for this work is much appreciated. Through early and careful planning, significant economies were achieved, enabling a further visit to be planned for Dr Pennec to ADSRI in late 2011. This will significantly enhance her contribution to the research.

Public Forums Program

Public Lecture (Named Lecture) series

Each year the Academy sponsors several public lectures, named in honour of former Chairs or Presidents of the Academy.

The two annual lectures are the Cunningham Lecture (in honour of Dr Kenneth Stewart Cunningham, the first Chairman of the Social Science Research Committee, the Academy's predecessor), presented as part of the Academy's Annual Events, and the Paul Bourke lecture (in honour of the late Professor Paul Francis Bourke, a past President of the Academy) presented by the previous year's recipient of the Paul Bourke Award for Early Career Research.

The two biennial lectures, presented in alternate years, are the Keith Hancock lecture (in honour of Professor Keith J. Hancock, President from 1981-84) and the Fay Gale lecture, (in honour of the late Professor Fay Gale, the first female President of the Academy). As part of the Academy's outreach efforts these lectures are each presented three times, first at the lecturer's home university and then at two other universities in different cities.

2011 Paul Bourke lecture

Dr Christy Newman, the recipient of the 2010 Paul Bourke Award for Early Career Research, presented the 2011 Paul Bourke lecture at the University of New South Wales, her home university, on 10 August 2011.

The title of the lecture was *Workforce worries: The changing worlds of HIV medicine and the general practitioners who provide it*.

2011 Fay Gale lecture

Associate Professor Denise Doiron of the Australian School of Business at the University of New South Wales was selected to present the 2011 Fay Gale lecture. The title of her lecture is *Trends and Recent Developments in Income Inequality in Australia*.

The lecture will be presented initially at the University of New South Wales on 20 September 2011, then at the University of Western Australia on 26 October 2011. The venue and date for the third presentation are still being finalised.

2011 ASSA Annual events

The Annual General Meeting and related events this year will take place in Canberra on 7–9 November 2011.

The Fellows' Colloquium on 7 November will comprise presentations from the Fellows-elect for 2011.

The Symposium, convened by Tim Rowse (FASSA), Geoff Lawrence (FASSA), Elspeth Probyn (FAHA) and Mark Howden (CSIRO), will be on the topic of *Food Regimes and Food Security* and will be held on 8 November at the Shine Dome.

The Cunningham Lecture, following the Annual Symposium, will be given by Professor Tim Lang, Professor of Food Policy at City University London. The topic of the lecture is *Living with an unsustainable food system: can food democracy resolve the dilemmas?*

The Panel Meetings and Annual General meeting will be held on 9 November 2011.

State Based Fellows' Initiative

Under the State Based Fellows Initiative (part of the Academy's Outreach Program), the Academy supported a lecture by Richard Blandy on 'The Future of the City of Adelaide.' The lecture, on 20 April 2011 at the Adelaide Town Hall, was also sponsored by the City of Adelaide and the University of South Australia. The objective of the lecture was to inform an ongoing debate among South Australia's citizens about the options for the economic and population future of the City, and the lifestyle implications of decisions that affect the City's economy and population.

Workshop Program

2012-13 Workshops Program

The Call for Proposals for the 2012–13 Workshops Program opened in early May 2011, with a closing date of 21 October 2011 (a week earlier than in previous years).

Recent workshops

The International Science Linkages (ISL) Workshop Program in 2010-11 was funded by the Department of Innovation, Industry, Science and Research.

The last of the ISL workshops, 'Australian and International Perspectives on the Cosmopolitan Civil Sphere', was held on 28-29 April at Griffith University. Convenors were Ian Woodward (Griffith), Zlatko Skrbis (Queensland), and Robert Holton (FASSA, Trinity College, Dublin).

The following workshops under the 2011–12 Workshops Program were held in July 2011:

'Australian State Politics and Policy in Transition: The Case of NSW'. Convened by Rodney Smith (Sydney), Murray Goot (FASSA, Macquarie), 4-5 July 2011.

'Purposes Beyond Ourselves: Power and Principle in Foreign Policy'. Convened by Matt McDonald (Queensland), Tim Dunne (Queensland), Robyn Eckersley (FASSA, Melbourne), 13–14 July 2011.

'Neurolaw in Australia: Revealing the Hidden Impact of Neuroscience and Behavioural Genetics in Australian Law'. Convened by Wayne Hall (FASSA, Queensland) and Jeanette Kennett and Nicole Vincent (Macquarie), 14–15 July 2011.

'Cultures of Humanitarianism: Perspectives from the Asia-Pacific Region'. Convened by Jacinta O'Hagan (ANU), William Maley (FASSA, ANU), Miwa Hirono (Nottingham, UK), August 2011,

Forthcoming workshops

'Family, Work and Wellbeing over the Life Course' Convened by Belinda Hewitt (Queensland), Lyn Craig UNSW), Janeen Baxter (FASSA, Queensland), 20–21 October 2011.

'Religion and Social Policy in Australia and Neighbouring Countries'. Convened by Peter Saunders (FASSA, UNSW), Minako Sakai (ADFA at UNSW), October–November 2011.

'Australian Women's Non-Government Organisations and Government: An Evolving Relationship?' Convened by Marian Sawer (FASSA, ANU); Patricia Grimshaw (FASSA, Melbourne); Judith Smart (Melbourne), 29–30 November 2011.

'The Paradox of Melancholia: Paralysis and Agency'. Convened by Anthony Elliott (FASSA, Flinders), Jennifer Rutherford (Flinders), Brian Castro (Adelaide), June 2012.

Reports from workshops conducted under the Workshops Program, including policy recommendations, are published in *Dialogue*.

Reports from Workshops

Neurolaw in Australia

Nicole Vincent, Wayne Hall and Jeanette Kennett

1. Background

Neurolaw is a relatively new and highly-interdisciplinary field that brings together researchers from the social sciences, mind and brain sciences, law and philosophy, as well as public policy and law professionals to examine the potential for neuroscientific discoveries and techniques to address a range of pressing legal and social problems. These include for example, new ways of assessing individual responsibility and truthfulness (e.g., brain-based lie detection and mental health assessment techniques); using neuroimaging to predict dangerousness and recidivism (e.g., in sentencing, parole and involuntary commitment decisions); developing social policies and laws informed by the most up-to-date scientific findings; and treating conditions associated with crime, violence and social problems (e.g., treatments for drug addiction and restoration of mental capacity via direct brain interventions such as medications and brain stimulation).

A critical strand highlights the potential for neuroscience to have adverse socio-legal effects. For example, the perceived objectivity of science and its glittering technologies may jeopardize rather than advance the law's legitimate social aims. It may shift the balance of power from policy makers and the legal profession to scientists and technologists, and the rights of offenders may be trodden upon in the zealous pursuit of objectivity and scientific impartiality by, for instance, infringing people's right to mental privacy, prematurely embracing untested science and technology, or by inflicting serious harm on vulnerable prison populations by forced treatment of antisocial personality disorder.

An Australian voice has been almost completely absent from this field within the international community of neurolaw researchers. The potential problems that this may bring about were a major motivation for running this workshop which had three explicit aims: (i) to introduce local researchers to work in the field of neurolaw by leading North American and European practitioners, (ii) to discuss a series of working papers which introduced the participants to current topics in neurolaw research that may have application in Australia, and (iii) to provide a forum that would encourage Australian research and enable distinctly Australian issues to be identified and studied.

2. Workshop

The two day workshop program held at Macquarie University on July 14-15 comprised two Neurolaw Primer sessions, six Working Paper sessions, and four Australian Focus sessions. In constructing this programme we made contact with approximately 60 potential participants. The generous funding provided by the Australian Academy of Social Sciences, Macquarie University and the University of Queensland made it possible for 21 Australians (from Melbourne, Brisbane and Sydney, 10 of whom were Early Career Researchers (ECRs) to meet with seven international visitors. The disciplinary areas and ECR status of each attendee are shown in brackets:

1. Wayne Hall, University of Queensland, AU (public health)
2. Jeanette Kennett, Macquarie University, AU (philosophy)
3. Nicole Vincent, Macquarie University, AU (philosophy) (ECR)
4. Francoise Baylis, Dalhousie University, CA (philosophy)
5. Steve Clarke, Oxford University, UK (philosophy)
6. Colin Gavaghan, University of Otago, NZ (law, public health)
7. Hank Greely, Law, Stanford Law School, US (law)

8. Gerben Meynen, Vrije Universiteit Amsterdam, NL (philosophy, psychiatry) (ECR)
9. Robin Pierce, TU Delft, NL (law)
10. Walter Sinnott-Armstrong, Duke University, US (philosophy, law)
11. Francesca Bartlett, University of Queensland, AU (law)
12. Adrian Carter, University of Queensland, AU (public health, neuropsychology) (ECR)
13. Caitrin Donovan, Macquarie University, AU (philosophy, cognitive science) (ECR)
14. Heather Douglas, University of Queensland, AU (law)
15. Gary Edmond, University of New South Wales, AU (law)
16. Michael Farrell, UNSW, National Drug & Alcohol Research Centre, AU (medicine)
17. Anson Fehross, University of Sydney, AU (history and philosophy of science) (ECR)
18. Madeleine Fraser, Macquarie University, AU (psychology) (ECR)
19. Denise Abou Hamad, Macquarie University, AU (law, philosophy) (ECR)
20. David Hodgson, Supreme Court of NSW, AU (law, judge)
21. Steve Matthews, CAPPE, AU (philosophy)
22. Allan McCay, University of Sydney, AU (law) (ECR)
23. Phil Mitchell, University of New South Wales, AU (psychiatry)
24. Dominic Murphy, University of Sydney, AU (history and philosophy of science)
25. Karen O'Connell, University of Technology Sydney, AU (law) (ECR)
26. Mehera San Roque, University of New South Wales, AU (law)
27. Mary Walker, Macquarie University, AU (philosophy) (ECR)
28. Murat Yücel, University of Melbourne, AU (neuropsychology)

The workshop opened with presentations by Professors Hank Greely (Stanford Law School) and Walter Sinnott Armstrong (Duke University), two figures who are widely acknowledged as world leaders in this field. Hank Greely introduced participants to six central themes in neurolaw: prediction, mind reading, assessment of responsibility, consciousness, treatment, and enhancement. Walter Sinnott-Armstrong dealt in depth with the possible relevance of neuroscience to assessing criminal responsibility.

The working papers and subsequent discussions covered a range of topics. These included: the conceptual shifts that might take place if psychiatric expert testimony based on clinical assessment were replaced by assessments derived from neuroscience (Meynen); moral problems raised by the courts' use of physiological and possibly neural techniques to assess propensity towards paedophilia in offenders and persons working with children (Gavaghan); the interface between drug addiction and responsibility for criminal acts undertaken to support addiction (Hall, Carter & Sinnott-Armstrong); and the ethical permissibility of voluntary and involuntary methods of restoring mental capacity through direct interventions in the brains of offenders (Vincent & Pierce).

In one of the Australian Focus sessions Justice David Hodgson reflected on the use of neuroscience in a number of Australian cases, several of which have been identified by Nicole Vincent and Madeleine Fraser at Macquarie University. In another Australian Focus session Phil Mitchell from the University of New South Wales provided an overview of the different kinds of direct brain intervention based techniques that have historically been employed in an attempt to treat the causes of criminal

behaviour. This included an outline of his own current work on the efficacy of selective serotonin reuptake inhibitors as a possible treatment for persons convicted of violent offences. In the remaining two Australian Focus sessions, workshop participants focused on identifying key neurolaw issues of relevance to Australia and devising ways in which the study of these issues could be promoted by collaborations among Australian researchers.

3. Outcomes

We list this workshop's outcomes under five headings: education, networking, exposure, publications, and future research opportunities.

Education: Many of the participants expressed gratitude for the opportunity to meet and learn about neurolaw from world-acknowledged experts. Some expressed surprise at the diverse range of disciplines that could contribute to research in this field ranging from law, neuroscience, philosophy, addiction neuroscience, medicine, public health, therapeutic jurisprudence, etc. This increased their appreciation of the breadth of issues tackled under the banner of 'neurolaw'.

Networking: The workshop provided a rare opportunity for a diverse range of people who work in areas relevant to neurolaw in Australia – e.g., addiction, psychiatry, public health, human rights and the neurosciences – to meet and discuss areas of shared interest. This included people who because of physical and disciplinary distances would not normally have had an opportunity to meet and realise that they shared a common set of intellectual and research interests. Links were also forged with a recently-formed centre for research in law and technology in New Zealand. There is therefore the promise that future antipodean research in this field will also involve colleagues from Otago (Gavaghan). Finally, we attracted a high percentage of ECRs to this workshop comprising the type of people most likely to develop this field from a distinctly Australian perspective in the future. These included recent postdocs, current PhD and Masters students, and several final year undergraduate students.

Exposure: The workshop also drew the field of neurolaw to the attention of the Australian legal profession and even the general public. A spin-off public event entitled 'Neurolaw Symposium: the science of the mind meets the body of the law' was co-organised by Prof David Weisbrot and Dr Nicole Vincent on the Saturday following the workshop at the Supreme Court of NSW. This event included presentations by Greely and Sinnott-Armstrong as well as commentaries on cases from abroad by judges, Queen's Counsels and Senior Counsels. This spin-off event brought neurolaw to the attention of high-ranking Australian legal officers, and it also attracted an audience of approximately 100 people that included practicing lawyers, General Practitioners, students, geneticists, representatives from government ministries, police forensic officers, psychologists, university lecturers, and members of the general public. The organisers indicated that the event was made possible by ASSA's sponsorship of the preceding workshop which enabled Sinnott-Armstrong and Greely to be brought to Australia. The event also attracted media attention – see the article in the *Weekend Australian Magazine* about neurolaw citing Walter Sinnott-Armstrong and David Weisbrot <http://www.theaustralian.com.au/news/health-science/the-truth-about-lie-detection/story-e6frg8y6-1226099248753>

Publications: The six working papers discussed at the workshop are being considered for publication in a special issue of the peer reviewed journal *Criminal Law and Philosophy*. The workshop discussions helped the authors to sharpen their arguments and provided some Australian content (in some instances reporting Australian research and in others Australian legal cases). The estimated date for publication of this special issue is around the end of 2011. A further opportunity for publication arose during the workshop: Professor Phil Mitchell reported that he had been unable to get ethics approval to conduct further research arising from the promising results of a recent pilot study in which convicted violent offenders were treated with SSRIs to help them control their aggression. In order to identify the ethical barriers in moving forward with this research, it was suggested that it would be useful to develop a commentary series for a special issue of a relevant

journal (such as Neuroethics or AJOB Neuroscience) which would consider what ethical issues might stand in the way of conducting research on direct brain intervention-based treatments for the causes of violent behaviour.

Future research opportunities: The discussions confirmed that very little is currently known about the extent to which neuroscientific evidence is used within Australian jurisdictions, or about precisely how such evidence could even be used given procedural limitations. The exception was work that has recently started at Macquarie University on developing an Australian Neurolaw Database. In the cases surveyed by Justice Hodgson, a number of which were drawn from this database, neuroscientific evidence played only an adjunctive or supportive role to psychological evidence. It was never seen as directly relevant in establishing a particular legal claim (e.g. that the defendant possessed or lacked a requisite mental capacity).

Participants suggested that in order to promote Australian research in neurolaw it would be useful to extend the NEUROLAW.au web site (www.neurolaw.com.au) by adding the following functions: mailing list; disciplinary sub-sections of the web site; guest blogs on each of the disciplinary sub-sections; discussion forums; links to relevant current Australian projects and funding opportunities, studies, journals, and other web sites from abroad.

Three specific suggestions were made about how to get a more complete view of the way that neuroscience is being used within the Australian legal system by extending the Australian Neurolaw Database at Macquarie University: (i) make the database available online as a public resource; (ii) by offering this public resource, attract Australian lawyers and enable them to submit their own cases (which will provide them with a way to advertise that they are working in this field); (iii) find and talk to experts who testify in Australian cases since many cases may be settled out of court and thus may never even be reported upon; and (iv) conduct a qualitative study of Australian judges' and lawyers' attitudes to using neuroscientific evidence in court.

Contesting Neoliberalism and its Future

Damien Cahill, Lindy Edwards and Frank Stillwell

The workshop 'Contesting Neoliberalism and its Future' was held at the University of Sydney on December 2nd and 3rd 2010, sponsored by the Academy of Social Sciences in Australia, in conjunction with the School of Social and Political Science at the University of Sydney and the Institute of Social Science at the University of Sydney. Neoliberalism has become a renewed focus of public debate, particularly regarding its role in causing the global financial crisis. In this context many have argued that the dominance of neoliberalism in public policies is coming to an end. Such pronouncements tend to understand neoliberalism as being synonymous with 'free markets' or, at least, as the drive to extend the scope for markets with minimal government intervention. Indicative of this is former Prime Minister Kevin Rudd's description of neoliberalism as 'free market fundamentalism' in the article he wrote for *The Monthly* magazine following the onset of the global financial crisis.

However, this public debate often glosses over the contested scholarly understandings of neoliberalism. For example, missing from much of the public discussion are the insights of Foucauldian scholars who view neoliberalism as a system of 'governmentality', whereby individuals regulate themselves in accordance with market rationality. Missing also are the insights of the 'regulatory capitalism' approach, which notes the proliferation of regulation during the neoliberal era, thus questioning the extent to which neoliberalism is an appropriate description of the major changes

to the state and economy during the last three decades. Public debates also tend not to engage with Marxian accounts of neoliberalism, which view it as the product of class power and contradictions within the capitalist mode of production, rather than merely as a particular set of ideas. While scholars have developed these, and other, alternative conceptions of neoliberalism, in Australia there has been little direct engagement between the proponents of the different scholarly conceptions of neoliberalism.

The ASSA-sponsored workshop on 'Contesting Neoliberalism and its Future' was conceived as a way of filling these gaps by bringing together leading Australian scholars for a focused investigation of the nature of neoliberalism, both in theory and practice. Based upon these understandings, the policy implications of the current global financial crisis for the future of neoliberalism were considered.

The workshop was held at Women's College, The University of Sydney. There were 23 participants, ranging from senior scholars to early career researchers. Two full days of discussion were supplemented by a conference dinner.

Key questions considered by the papers and discussion sessions at the workshop included: What is neoliberalism? Has neoliberal policy-making been superseded? Is neoliberalism a misnomer as a description of the major policy trends during the last 20 years? Does the global financial crisis herald a new era of regulation? Which avenues for public policy are opened up and which are curtailed by the global financial crisis?

The workshop was organised around topic areas which represent distinct approaches to understanding neoliberalism and its future in the wake of the global financial crisis. Each session was framed by one of these topic areas, with each of the two papers in the session addressing the topic. Each session began with a summary and evaluation of the two papers by a discussant. The authors of the papers then provided a brief response, after which the topic was opened up to the other participants for questions and comments. The papers were made available to all participants prior to the conference to give enough time for them to be read in advance. This process, particularly the somewhat unusual discussant-led format, provided for a highly informed discussion that was detailed and constructive.

Papers considered at the workshop began by questioning popular conceptions of neoliberalism. John Mikler's presentation in the opening session drew attention to the influence of slowly evolving institutional structures, and argued that history remains a better guide to the future than the impact of the recent global financial upheaval. Quantitative evidence on the size of the public sector in OECD economies, for example, suggests that there has been no general 'rollback of the state'. Elizabeth Thurbon's paper in the same session looked in more detail at industry policy in Australia, also suggesting that the influence of neoliberal ideas in Australia may have been overstated. Developmental policy ideas have been a constant and ongoing influence over the last three decades in the realm of federal industrial governance. Further papers explored the potential for some useful ways of thinking about neoliberalism. Lynne Chester outlined the nature of Australia's contemporary mode of regulation following the political ascendancy of neoliberalism, emphasising the increasing interventions of the state to secure the growth regime. Martijn Konings explored the lead-up to the financial crisis in the U.S., arguing that the neoliberal era extended the state's regulatory power, contradicting neoliberalism's ideological emphasis on deregulation.

Tensions within neoliberalism were teased out in the following session, with Joy Paton arguing that neoliberalism is not so much a coherent theory as an inherently political phenomenon embodying tensions that challenge its claim to be a modern expression of liberalism. Damien Cahill put forward a framework for understanding neoliberalism as a deeply embedded set of institutional rules, class relations and ideological norms – a constellation of features which have proven resilient in the face of crisis.

The ideas infusing neoliberalism were also critically considered. Mitchell Dean suggested a two-fold approach to understanding neoliberalism. First, drawing upon the Foucauldian tradition of

governmentality studies, neoliberalism can be conceived of as a regime of state, involving particular techniques of governance. Second, drawing upon the recent work of Mirowski and Plehwe, neoliberalism can be conceived of as a 'thought collective' or militant movement that mobilises to influence sovereign power. Melinda Cooper and Jeremy Walker's paper explored the traces of Hayek in the 'resilience' thinking becoming popular in financial circles in the wake of the recent crisis, warning that complex systems theory has transformed from a critique of power to a methodology of power.

Finally, political futures and possibilities were explored. Lindy Edwards suggested that rejecting the identification of 'markets' with 'individualism' opens up the scope for a new political agenda which takes account of the importance of co-operation within markets. Ben Spies-Butcher charted the way that post-materialist issues have realigned with the traditional class issues in the Australian electorate, and argued that in conjunction with fragmentation of the major parties' voter bases, this creates the potential for federal government policy to be shifted to a progressive 'nation-building' path.

While participants differed on the appropriate conceptual tools and research traditions for understanding neoliberalism, a consensus emerged about the existence of distinct dimensions of neoliberalism: neoliberalism as ideology; neoliberalism as a movement; and neoliberalism as a policy regime. This informed a common recognition that the relationship between neoliberal theory and practice is fundamentally problematic, and that government policies over the last three decades are not simply the reflection of neoliberal ideas.

The need to be attentive to global and local characteristics was also noted. While an overarching logic of neoliberalism can be identified at the global level, the extent and nature of neoliberal restructuring varies between countries. It was pointed out that analyses of neoliberalism tend to privilege the experiences of the global 'North', yet neoliberalism is also to be found in the 'South' with Pinochet's Chile being the first example of neoliberalism in practice. So, while much of the discussion focused upon the specifics of the Australian situation, it was recognised that aspects of this experience are not universal.

As for public policy directions and the future of neoliberalism in the wake of the global financial crisis, different viewpoints remain. Participants in the workshop variously highlighted the importance of new policy ideas, new discursive policy frames, new regulations, a renewal of the nation-building agenda and the role of different agents, such as public servants, political parties, social movements, and class forces. Nonetheless, the workshop sketched some of the factors and constraints likely to shape policy responses in the post-crisis environment. The 'institutional stickiness' of both neoliberalism and its predecessors was noted. Neoliberal forms of regulation continue in many areas, but older forms of governance and institutions remain pervasive. This suggests that enduring policy shifts need to be firmly embedded within institutional rules and structures. Participants also noted the role of vested interests, whether conceived of in class or other terms, in post-crisis regulatory responses. This suggests the importance of the distribution of political and economic power in shaping both neoliberalism and alternative policy directions.

This topic will evolve with changing conditions in the wake of the global financial crisis and attempts to establish a more stable political economic order. Participants in the workshop agreed that a publication based on the papers considered at the workshop would be a valuable input to these ongoing deliberations. Accordingly, the workshop convenors are making arrangements with an international publisher and hope to have a book completed and available during 2011.

Seminar on the public funding of teaching in the humanities and social sciences

Simon Marginson

On 30 June the University of Melbourne Centre for the Study of Higher Education held a national seminar on the public funding of teaching in the social sciences and humanities. The event was jointly sponsored by ASSA and the Australian Academy of the Humanities, and also received support from the Vice-Chancellor at the University of Melbourne. Among the 13 speakers at the seminar were six ASSA Fellows and two Fellows of AHA, including ASSA President Barry McGaw and former ASSA President Stuart Macintyre.

The genesis of the seminar lay in two significant policy events: the December 2010 decision by the UK government to withdraw public subsidies from humanities and social science programs in English higher education; and the current Australian government review of base funding in higher education.

The federal funding review is chaired by the former Lord Mayor of Adelaide Jane Lomax-Smith and reports by 31 October. Its brief is to frame a new system of public subsidies, by discipline and level, based on a defined public/private split of benefits. While the Lomax-Smith review is unlikely to adopt the harsh simplicity of the UK solution – which appears to suggest that teaching in the liberal disciplines creates no public benefits subject to market failure – it has a difficult brief.

This is not solely because the present Labor government, like all governments in low tax polities, is spooked by the possibility of spending increases. It is because the underlying conceptual and policy issues are difficult to resolve, especially in relation to the nature of the public benefits of university programs, and the ratio between public and private benefit. The public/private funding split varies markedly around the world and has changed sharply in Australia in the last 25 years. It also varies markedly between disciplines, due to the eclectic application of two heterogeneous criteria for differentiation – costs of provision, and private earnings benefits.

While the apparent private benefits of teaching can be 'demonstrated' by pointing to graduate salaries and employment rates (though this evades the question of whether those private earnings can be attributed to education), the public benefits of university study in any discipline are not readily defined and measured. This is not the same as saying that those benefits do not exist, but it renders especially vulnerable to underfunding the liberal disciplines dependent on assumptions about social benefit.

Essentially the public funding of teaching and much of research in the humanities and social sciences rests as much on norms as fact. The economic facts of the matter are subject to widely divergent interpretations even within economics. If there is to be a viable long term consensus about public funding that consensus needs to be bedded down on the basis of vigorous policy advocacy and wide agreement.

Speakers at the seminar discussed the economics, politics and educational dimensions of public funding of teaching. There were no glib answers. The discussion was engaging, and often sparkling, and drew many comments from the participative audience. It would be exaggerating to state that in their 12 to 15 minute presentations the speakers satisfactorily 'solved' the problem of defining the public benefits of teaching in the humanities and social sciences, and the grounds of a consensual funding system. There were also differences between them. The seminar drew out a plurality of views within economics, provided useful data on the history of funding and fees, and foregrounded the social and cultural dimensions of the humanities and social science disciplines, including the communicative dimension of their public role.

After former ASSA President Stuart Macintyre located the liberal disciplines in a history of nation-building, economists Peter Sheehan, John Freebairn FASSA and Andrew Norton distinguished private pecuniary benefits, private non-pecuniary benefits (e.g., the better health outcomes of graduates), public externalities as spill-overs to individuals (e.g., productivity transfers), and public

externalities as collective benefits (e.g., common culture). Peter Sheehan noted the policy rationale for the liberal disciplines was as much social and cultural as economic. Andrew Norton was more sanguine than the other speakers about the potential of competitive markets to generate public benefits. The economic analyses were supplemented by influential interventions by Bruce Chapman FASSA from the audience.

It was agreed by all that policy assumptions about the public/private split are politically not technically driven; that non-pecuniary private goods and collective public goods are very hard to pin down; and that not all that is valuable is measured. There was disagreement about interpretations of graduate earnings data by discipline but agreement that collective externalities were discipline neutral.

In his response to the economic papers, Glyn Davis FASSA pointed to recent American research suggesting that for many students, the liberal disciplines had little impact on skills and knowledge. This suggested that educational objectives needed clarification. When the main discussion shifted to teaching the points became more discipline-specific. Stephanie Trigg FAHA, Graeme Turner FAHA and Stephi Donald FASSA took the room from Chaucer to China. Barry McGaw FASSA debunked the notion of domain-free generic skills, a point endorsed by all subsequent speakers. Philosopher John Armstrong asked 'how do we get people to want the humanities enough to pay for them?', a question that applies to either private or public funding.

Perhaps the assertion of disciplinary contents was the strongest message of the seminar. The question then becomes how to make that assertion a 'public' one. Simon Marginson FASSA and former federal Finance Minister Lindsay Tanner discussed the problem of finding a public voice, in an era when the town hall meeting has gone, and cultural content and the democratic rationale for funding must navigate the meta-network of focus groups, shock jocks, Murdoch tabloids, websites and blogs. This suggested that the policy problem of grounding the public funding of the humanities and social sciences was one aspect of the larger problem of the implications of the evolving communications-mediated public realm for democratic politics and policy.

Lindsay Tanner noted that the debate about university funding was affected by the rhetorical dualism about elites and battlers. He also expressed the view that in the academic ranks of humanists and social scientists were many with the personal resources to develop a more effective public intervention than we have seen so far.



Reports from Roundtables

Sustainable Population Policy: public policy and implementation challenges

Liz Allen

On 15th April 2011 ASSA partnered with the Institute of Public Administration Australia (IPAA) to convene a policy roundtable discussion titled *Sustainable Population Policy: public policy and implementation challenges*. This was sixth roundtable from IPAA's National Roundtable Series for which ASSA has been a partner. The roundtable was convened over a full day in Canberra, and was made possible with support from Ernst and Young, as well as from Minter Ellison and the ANU's HC Coombs Policy Forum.

The roundtable program was developed to consider those changes in population size, growth rates, composition and distribution which are critical factors in economic, environmental and social development and sustainability. Public policy in this area is complex, involving a range of policy domains and objectives, and all layers of government. Development and implementation of sustainable population policies presents challenges for all levels of public administration, including in its relationships with other sectors and for effective community engagement. Exploring these challenges was the focus of this roundtable.

The roundtable was preceded by a dinner at which a presentation on *Key trends, drivers and implications of population dynamics* was made by Professor Graeme Hugo FASSA, Director of the National Centre for Social Applications of Geographical Information Systems¹. Professor Hugo provided a global context, before focusing on some of the implications for policy of the demographics of the Australian population. Professor Hugo stressed that while there are uncertainties around predicting the demographics of the Australian population, there are also many certainties. Foremost amongst these in Australia are the challenges posed by the imminent retirement of large numbers of the baby boomer cohort, who in 2006 represented 27 per cent of the population but 42 per cent of the workforce. As this large group moves into retirement, the productivity challenge it poses for Australia will increase dramatically.

Professor Hugo argued that the challenge facing Australian policy makers is to reconcile the productivity needs of Australia – for which a suitable sized population and labour force is a central factor – with other issues such as the environmental sustainability of the Australian population. Professor Hugo noted that in his view Australia is, of the OECD nations, very well placed to cope with the demographic challenges which we can see coming.

The roundtable was structured around five sessions, as follows:

- Population dynamics and drivers
- Sustainability – the way forward?
- Settlement patterns, dynamics and absorptive capacity
- Progressing and implementing a sustainable population policy
- The role of information and engagement in policy making and implementation

In the first session, participants heard from the opening speakers that while Australia has very good expertise in the area of demographic modelling, there are limits to the certainty with which predictions about population can be made and this has consequences for way in which planning is undertaken. Participants also heard that labour force participation, including by youth and older workers, along

with net migration – and especially of temporarily migrating skilled workers – would be two of the most crucial elements in determining Australia's multifactor productivity in the future. In the following discussion participants were generally in agreement that, given the limitations of modelling, a 20 year timeframe for government planning – such as for infrastructure – was the most appropriate.

In the second session, opening speakers considered, among other things, the implications for planning of the growth of the population. Noting that 1.7 per cent growth would double the labour force in around 45 years, the point was made that this implied planning for a doubling in those 45 years of the total economic infrastructure developed since white settlement of Australia in 1788. The consequences of this for environmental sustainability are profound. The point was made during discussion that when approaching the development of policies – such as for population settlement, infrastructure development, etc. – which have the sustainable use of natural capital and the minimisation of negative environmental externalities as their underlying principles, it will be necessary first to construct a language in which economic and policy discussions about environmental sustainability can held.

Speakers further noted that one of the key challenges for sustainability in Australia was the fact that while the Australian population remains largely urbanised, the size of our biggest urban areas was holding steady while regionally located urban areas were growing. The challenges to sustainability posed by this spreading urbanisation were matched, however, by the needs of the population for economic growth, and the problems presented by curtailing that growth. It was pointed out, for example, that a GDP growth of around two per cent per annum is required to maintain levels of employment.

In the third session, participants heard the view that it is the combination of behavioural change and population change which presents the most challenges for planners and policy makers. It was noted, for example, that in Melbourne in the five years to 2010 there had been around 49 per cent growth in train use, compared to a nine per cent growth in population. This change represented the impact, therefore, not simply of population growth, but also of changing patterns of behaviour by an increasingly post-industrial urban Australian society.

During session three participants also heard that changing patterns of behaviour in the wake of population growth did not always have straightforward implications for resource use. A notable example is in the area of housing. The point was made that while high-density, apartment-block housing created efficiencies in terms of land and transport use, average consumption of electricity and water per person increased in line with a decrease in the average density of persons per dwelling (i.e., fewer people per household means more showers or washing machines per person).

It was further observed that while the overall population has certain characteristics, populations within it had often quite varying characteristics, and this has also implications for planning and resource allocation. Examples given were the fact that the Aboriginal population is not ageing in line with the overall population, that it still does not have the life expectancy of the overall population and in the youth population, that unemployment is far higher than in the overall population.

Discussion in the fourth session focused in particular on the implications for Australia's federal system of government arising out of the processes of developing and implementing sustainable population growth policies. It was noted that it is not always clear who 'owns' the issues. Sometimes policy which influences population is divorced from its consequences. A clear example of this is the extent to which immigration policies, set by the Commonwealth, have implications for the planning requirements placed on state and local governments. Participants considered the proposition that policies for population were not population policies insofar as they would simply influence population size and distribution, but rather that sustainable population policies act primarily to influence population behaviour, and address population needs. With this in mind, it was proposed that it was imperative to retain cohesion amongst policy jurisdictions as they seek to address the sustainable population issues for which they have responsibility.

In the final session participants considered the importance of the social debate around the sustainable growth of Australia's population, and the need for sustainable population policies to be underwritten by broad public support in order to be effective. Participants heard that it was necessary in Australia to invest in adequate collection and analysis, and then dissemination of appropriate information in order to inform more mature debates about population, particularly in respect of sensitive population issues such as migrant intake and housing development. It was noted that such debates are hampered in Australia by a general aversion to natural experiments in public policy. Instead there has been more focus on blanket approaches in policy areas affecting population behaviour, such as those in the areas of health, higher education, and social security, which has arisen in part because of Australia's vertical fiscal imbalance.

Discussion throughout the day was productive and informative but also discursive, reflecting the complex nature of sustainable population policy, which cannot easily be boxed. Participants were generally in agreement that more needed to be done to ensure that researchers and policy makers work more effectively in partnership to develop and implement policies which ensure the sustainability of changes to the size, growth, distribution and behaviour of the Australian population. It was further agreed that such sustainable population policy represents a framework within which policies affecting and serving the needs of changing populations – such as in the area of infrastructure development—would be developed in the future.

A paper which considers in more depth the context and significance of the findings of the Sustainable Population Policy roundtable will shortly be published by the Academy of the Social Sciences in Australia. The paper, by Liz Allen, a researcher in the Australian Demographic and Social Research Institute at the Australian National University, will be available for free download from the publications area of the ASSA website – www.assa.edu.au/publications.

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1. The slides from Professor Hugo's talk can be found online at:
http://www.ipaa.org.au/01_cms/details.asp?ID=281



Skills Australia-ASSA Scenario Development Forum

Michael Keating and Caroline Smith

On 7th February 2011 Skills Australia, in partnership with ASSA, convened around 50 experts in Sydney for a Scenario Development Forum. This is the second such collaboration between Skills Australia and ASSA, with the two organisations having convened a policy roundtable in 2008¹ which considered the process of forecasting the supply and demand for skills, as well as the limitations which circumscribe such an exercise².

Skills Australia, an independent statutory body, provides advice to the Minister for Tertiary Education, Skills, Jobs and Workplace Relations on Australia's current and future workforce skills needs in order to better inform policies for skills formation and workforce development.

Participants from the research, government and private sectors were convened for a full day of intensive dialogue at the Forum. ASSA was pleased to be able to assist Skills Australia by ensuring the participation of expert social sciences researchers.

The Forum was the first part of a Skills Australia project to develop scenarios for Australia to 2025 which will inform modelling of the supply and demand for Australia's skills needs and the formulation of a national workforce development strategy. Scenarios are alternative visions of the potential future, and provide a means to make decisions that take account of uncertainty³. Given the uncertainty inherent in making projections of the future, Skills Australia has adopted such a scenario development approach which allows for alternative futures to be taken account of in economic modelling.

The central question for the scenario project is 'What are the key factors driving the demand and supply for skills in the Australian labour market to 2025?' Six experts were asked to draft papers identifying critical issues for Australia to 2025 relating to the following drivers, all of which have an impact on the supply and demand for skills:

Social, demographic and cultural trends

Economic and financial trends and globalisation

Labour force, industrial and workplace trends

Science, technology and innovation

Governance and public policy

Sustainability, focusing on water, energy and population

These drivers served as a focal point for smaller groups of participants, who discussed the issues raised in the papers, identified key themes, areas of uncertainty, linkages between drivers and their implications for the supply and demand for skills.

Economic and financial trends and globalisation

The forum heard the view that the key factor, in the area of economic and financial trends and globalisation, affecting the labour market in Australia would be an ongoing high level of Australia's terms of trade for its exports, driven by high demand for mineral and energy commodities from China and also India. The forum heard that the Chinese and Indian economies were, despite sustained recent growth, still in a comparatively early stage of their likely economic growth trajectory. While there were some uncertainties raised about future growth in China and India, it was generally agreed that high Asian demand for mineral and energy commodities would largely continue to sustain a high level of Australian terms of trade, and a high Australian currency value. This would have implications for the competitiveness of other export industries, including the manufacturing sector, but also potentially tradable parts of the services sectors, such as has already occurred in some parts of information and telecommunications (ITC) and financial services.

It was also noted that Australia's labour productivity has been positive, largely due to capital investment. Australia has, however, experienced negative multifactor productivity over the last few years, which has been attributed to a lack of recent major economic reforms. The prospects for improving multifactor productivity were not viewed as particularly positive over the next 15 years.

Labour force, industrial and workplace trends

With respect to labour force, industrial and workplace trends, several were identified as being of particular significance when considering future skills formation and utilisation. Of greatest importance was the ongoing pattern of the movement of women out of the home and into the paid labour force, of which females now constitute around 45 per cent. The continuation of this trend will have broad implications for industrial structures and workplace-specific arrangements. It was projected that the need to address issues of salary equity and flexible workplace arrangements will become increasingly common challenges of the industrial landscape. Also of increasing importance is the critical need to address shortfalls in non-market production – particularly in the area of unpaid care for family members such as children, ill relatives, and the elderly – created by the transition of women from performing unpaid domestic to undertaking paid labour.

This will be especially problematic as it comes at a time when a large cohort of baby boomers will begin to vacate the labour force and move into retirement. As the needs of this older cohort for provision of care, including healthcare, increases, the non-market sector will be less able to provide these services which therefore increasingly will have to be borne by the market sector. This has implications for skill needs and industrial conditions in traditionally feminised sectors, such as aged care.

It was suggested that there has been a trend in the last 50 years in the Australian labour market to increasing levels of formal education and training, and to some extent away from on-the-job-training. This has significant implications for government, business and the individual. At the broader level, formal education is substantially more expensive than informal training, and can be alienating for a portion of the population as a result of adverse experiences in formal education. For employers and employees the need for high levels of education and ongoing training create time and financial stresses which can adversely affect both productivity and personal lives. This is reflected in the sustained increase in hours worked by both full-time and part-time employees over the past two decades.

It was argued that global economic forces and technology are changing the structure of employment. Growth areas are in the services industry, at both high and low skill levels. A risk was identified that with the expansion of low level service jobs, largely done by women, men with poor education may be left behind in the labour market. It was also suggested that in order to respond to the changing structure of the economy, enterprises and their workforce must be capable of adapting. Smarter industrial relations leading to improvements in the capacity of management to engage productively with its workforce would also enhance the productive potential of firms and their employees.

Skills for an innovative Australia

The forum was reminded of the common mistake in policy discussions where innovation is conflated with support for R&D by scientists and engineers, leading to new inventions. Instead, the vast majority of innovations simply involve the import, purchase or adaptation by individual firms of extant technologies, processes and products to drive improvements in their productive efficiency. While high intensity R&D in both universities and the private sector will continue to be necessary, particularly in support of high level education and training, of more significance for skills formation is the incremental innovation that occurs in individual workplaces.

The paper argued that since the 1960s ICT has become a principal generic industrial technology, and is now applied in *every single sector* of the Australian economy. Two other important emerging areas of generic technology improvement, which similarly have wide application, are biotechnology and

nanotechnology. In discussion it was generally agreed, however, that no other technological breakthrough is anticipated that will have a significant impact over the next 15 years. Instead, innovation will continue to be mainly demand driven, involving incremental change in response to changing market demand, of which the most important change will be the growing population of affluent consumers in developing countries.

As Australia is for the most part an adopter of technology, it was argued in discussion it will be necessary to have more generic skills so that we can recognise and implement the things that we can do differently. Technical skills are required at all levels, as even within R&D, PhD graduates account for less than 15 per cent of total employment. Accordingly, the safest approach to meet future skill requirements is to strengthen education in all science and engineering disciplines at all levels, while business management and organisational skills are also essential.

Sustainability

The Forum heard that national and global increases in overall population and the population density of large urban centres would combine with the rapidly increasing wealth of large sections of the global population to drive increased demand for water and energy, as well as for food. Of significance in this is the extent of water usage required for the production of the levels of energy and food needed to meet projected demand, with the production of energy being particularly water intensive. Conversely, the act of moving water from high rainfall areas to areas of high population or higher agricultural production is energy intensive, and substantially more costly than alternative means of water production such as desalination.

Climate change was noted as a key issue facing Australia to 2025 and beyond. Government policy approaches to climate change have broad implications for the cost of producing energy, and the cost of maintaining supply of increasingly scarce resources such as potable water and export-quality agricultural products. However, the Forum heard that it was too early to predict with any degree of certainty the form and extent, and therefore the impact of those policy responses.

Another area of discussion was the relationship between sustainability and economic growth. Population is a key driver, but also one which creates uncertainty related to migration and constraints on location from water and energy. The group agreed that adaptation will be important, but the capacity for adaptation is not well-developed. Although farmers are leading the way, they will need re-skilling to manage bio-diversity.

The influence of government

The paper on governance and public policy started from the premise that in a democracy, government must both reflect and shape the social, economic and technological relationships underpinning our society. The focus of discussion was then on the capacity of governments to determine and implement policy in a changing political environment, affecting both the role and capacity of government.

Political tensions were identified between the ongoing presence within the electorate of high-level materialist aspirations, which can clash with post-materialist values in support of the environment and conservation and other quality of life issues, such as the work-life balance where the preferences of different generations can also differ. Another such tension arises out of our increasingly individualistic society, which is less trusting of authority, so that governments are under more pressure to justify their actions. In addition, people's increased rights to privacy, information and to appeal government decisions have also changed the character of government. But in contrast to the individualists, within a decreasingly homogenised society, other groups of citizens are seeking more cooperative arrangements to provide more social and economic security in the face of seemingly rapid change in society and its values.

The forum heard that Australia has strong fiscal capacity compared to many countries, although the factors underpinning this – favourable demographics, terms of trade and revenue increases through

privatisation – have changed, creating less fiscal certainty for the future. With a reluctance to increase tax rates, demands on government finances, especially from demographic change, may well outstrip the capacity to respond to these future demands. Other tensions to be navigated include the increasing fragmentation of our politics, reflected in the increasing influence of special interest groups; the impact of communications technology on the respective roles of our various political institutions and the nature of political debate, possibly associated with the extreme adversarialism evident in present-day politics; and the capacity of Australian federalism through the Council of Australian Governments to achieve and implement coordinated policies for the variety of issues that, because of their inter-linkages, necessarily engage both levels of government.

The forum also heard that governments intervene to achieve their objectives and coordinate activities using four basic tools: regulation; tax and spend; managed markets; and collaborative networks. The paper argued that changes in the balance between these instruments had assisted the government to respond to the pressures identified previously and to preserve its policy capacity. The group discussed other possible institutional changes that would help in the future, particularly those which would help forge a better policy consensus.

Social, demographic and cultural trends

The forum heard that while demographic and cultural drivers of change in the Australian workforce to 2025 can be predicted with varying degrees of certainty, it is quite clear that an ageing population and the imminent losses to the workforce which this entails is the clearest and most easily identifiable challenge faced in the labour market to 2025. A group born in the high fertility years after the Second World War, and which includes the baby boomers, is now passing 65 of years of age. This group makes up around 41 per cent of the workforce and will be rapidly lost to it in the coming years. Changes in fertility patterns in the latter half of the 20th century mean that, with the gradual retirement of this cohort, there will be a significant slowdown to net increases to the workforce. These can be offset, but not entirely reversed by initiatives to increase the retirement age, and to increase workforce participation – including by older workers.

In contrast to mapping changes in age structure of the domestic population, changes to net overseas migration (NOM) in the years to 2025 – a factor which could potentially completely offset the effects on the structure and size of the workforce of an ageing domestic population – are much harder to predict with certainty. Some trends in NOM patterns are clear however. While intakes of permanent migrants are determined by government, under current policy settings the intake of temporary migrants allowed to work – almost all of whom are skilled workers – is determined by the market principally through sponsorship from business. When matched with the fact that emigration from Australia is generally comprised of highly skilled workers, it is clear that immigration policy, especially as it relates to skilled migration and the nexus between permanent and temporary migration, will be crucial in determining the structure of the Australian workforce to 2025.

A further significant cultural factor which affects the structure of the labour force is discrimination, including on the basis of age, gender, and ethnicity (including of qualified workers from non-English speaking backgrounds). Discrimination on all these bases continues to result in the under-utilisation of skilled labour when the people concerned are forced to settle for lower-skilled, lower-paid work. Encouragement of attitudinal change, including amongst employers, should continue, resulting in increased social inclusion in workplaces, and increases in family-friendly workplaces and flexible employment arrangements. This in turn should decrease the incidence of the under-utilisation of skilled workers.

Key factors for scenarios to 2025

Over the course of the day some key themes became clear to the groups examining the critical issues facing Australia to 2025.

- Continued high (although not necessary even) demand for Australian energy and mineral commodities, and continued high prices for them, will ensure a high terms of trade for Australian exports to 2025, and will continue to have broad-based effects on the economy and the structure of the labour force.
- Geopolitical uncertainties may have an impact on Australia's future to 2025, for example, whether or not China and India continue on their current growth trajectory. The potential for increased supply of commodities from emerging countries also creates uncertainty around the demand for and price of Australian resources.
- The extent, form and manner of implementation of policies which respond to climate change will have significant consequences for Australia's society and economy, and for the structure of its labour force.
- The take-up of innovation will be critical to Australia's future competitiveness, and the capacity to recognise and implement the opportunities to innovate will depend upon skills at all levels and the ability of the workforce to adapt to change.
- The change in population structure represented by the imminent departure from the workforce of the baby boomer cohort of older workers has significant implications both in terms of skill shortages in key sectors of the labour force, as well as the demands which increasing numbers of older Australians will place on a relatively smaller labour force.
- Immigration policy, particularly as it relates to the intake of skilled migrants, and the terms for those migrants with respect to temporary and permanent residency, will be crucial to determining the structure and capacities of the labour force to 2025.
- The change in workforce structure represented by the continuing trend towards parity of male and female participation in the paid labour force has implications for patterns of production in the market and non-market economies. There are also issues about the extent to which low skilled males will access low level service sector jobs, which is a key area of employment growth.
- There is a changing balance between post-materialist values, such as work-life balance, and the continuing desire for economic development and improving material standards of living. At the same time, increased employment participation and social inclusion may also require continuing economic growth. The structure of the economy and challenges in achieving 'decent' work for all also raised the spectre of the potential development of an underclass in Australia.
- The choices that governments make influence all other areas to some degree. Much hinges on government activism – or inactivism – in responding to changing scenarios.

This report is a condensed version of a more detailed paper on the findings of the Scenario Development Forum and their implications for social sciences research and public policy. That report, by Dr Michael Keating AC, was published by the Academy in June 2011, and is available for free download from the publications area of the Academy's website: www.assa.edu.au/publications/.

1. Reported in *Dialogue* Vol 27, 3/2008, pp.81-4

2. A paper by Phil Lewis reporting and commenting on the findings of the first roundtable was published in the Academy's peer-reviewed Academy Occasional Papers Series (3/2008), and is available for [free download](#) from the publications area of the ASSA website.

3. Saliba, Gary and Withers, Glenn (2009). *Scenario Analysis for Strategic Thinking*. In Argyrous, George (2009). *Evidence: A Practical Guide for Policy and Decision Making*, UNSW Press.

Vale Fellows of the Academy

The following Fellows have died:

Kevin Ryan (Law)

Robert Brown (Philosophy)

Jamie Mackie (Political Science)

Peter Musgrave (Education)

John Turner (Psychology)

Peter Loveday (Political Science)

The Academy extends its condolences to their family and friends.

Obituaries will appear in the Annual Report.