From the CEO’s desk

Health and medical research has never been so critical to the future.

It’s certain that our approach to health, both the prevention and delay in ill-health, and the provision of care, will change dramatically in the next two decades.

Major changes built on evidence from health and medical research will be needed for a sustainable health system and one that meets the demands of the community.

By 2050, much of our current system is as likely to be as relevant as nurses in big veils, bloodletting and iron lungs. For one thing, many of our current ways of doing things will be unaffordable.

To get best value for money, policy makers will increasingly insist that processes and procedures, therapies and products are supported only where there is evidence that they are both effective and efficient.

While caring professionals will always be paramount, technology will erase the difference between in-hospital and home and ambulatory care. We will have treatments, and preventative technologies, that we only dream of now.

And hopefully, an energetic, profitable industry built on Australian research discoveries will be a much larger contributor to our national prosperity.

It’s not ‘all about the money’ but health and medical research can and must deliver more effective treatments and care (based on research evidence of what works), stronger prevention to maximise productivity (based much more firmly on cost-effective analysis of what works!) and an economy built of innovative industries.

This is a big responsibility for health and medical researchers and NHMRC; to balance discoveries with these outcomes for patients, the community, decision makers, governments and the private sector. I have no doubt that Australian health and medical researchers are up to this challenge. But it will mean that some of the ways we have done things in the past will not be sufficient for the future.

We will need truly multidisciplinary and interdisciplinary approaches for the biggest problems, we will need to participate in large scale international research initiatives and consortia, new technology and methodologies will drive change in research practices, the community will want a stronger voice in our work and institutional barriers will need to be reduced in order to maximise collaboration.

This Newsletter’s primary aims are to report to the research and wider community on the outcomes of last year’s funding round, outline some of the new directions that our new Strategic Plan brings (and what it may mean for researchers), discuss some of the current issues facing the research community (such as concerns about the load in applying to NHMRC for funding) and present in brief some of NHMRC’s advisory functions which demonstrate the interface between gathering knowledge from research and its application to inform the wider community.
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Facts and figures from the 2012 funding round

NHMRC’s funding of research has grown to over $857 million in 2013, compared to $691 million half a decade ago in 2007. NHMRC supported 2,243 Project grants in 2012 compared to 1,457 in 2007. We support 1,230 NHMRC Fellows (Early Career, Career Development and NHMRC Research Fellowships combined) compared to 950 in 2007.

Application rates have increased broadly in line with this increase in funding. For example, in 2007 there were 980 applications for NHMRC Fellows (Early Career, Career Development and NHMRC Research Fellowships combined) and 1049 applications in 2012. In 2007 there were 2420 Project Grant applications and 3570 in 2012.

Project Grant application numbers have again increased this year (5.1%) although this percentage increase is the smallest we have seen in recent years.

NHMRC research funding is scheduled to plateau over the next four years, apart from the indexing applied to our Medical Research Endowment Account (the indexing is passed on to all grants). In essence, this means that funded rates will decline if the number of applicants rise, or the size or average duration of grants increases.

The number of researchers registered in RGMS with profiles currently stands at 17,618.

2012 Project Grant round

Though biomedical research continues to be the major research investment by NHMRC, application numbers continue to grow in clinical public health and health services research (see the 2012 NHMRC Report to the Australian Health and Medical Research Community – webcast).

<table>
<thead>
<tr>
<th>Application number</th>
<th>Funded number</th>
<th>Funded rate</th>
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<tr>
<td>Basic Science</td>
<td>1896</td>
<td>431</td>
</tr>
<tr>
<td>Clinical Science and Medicine</td>
<td>1199</td>
<td>208</td>
</tr>
<tr>
<td>Health Services Research</td>
<td>112</td>
<td>26</td>
</tr>
<tr>
<td>Public Health Research</td>
<td>363</td>
<td>66</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3570</td>
<td>731</td>
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Note: Categorisation of grants to the four ‘pillars’ above is by the applicants, and many grants cross more than one of these ‘pillars’.

For New Investigator project grants, there were 300 applications last year in the total above in Table 1, with an overall funded rate of 18%. NHMRC’s long standing policy is to ensure that at least around 7% of all funded project Grants each year are for New Investigators. More than half of the applications and awardees were in the Basic Science category.

In 2012, the Assigners Academy had an increased responsibility for obtaining independent external assessors. This resulted in the highest number of assessments received for applications, with over 99% of applications receiving at least one external assessment.

In 2012, 38% of the first named Chief Investigator (CIA) applicants were women.

2012 Program Grant applications

Nearly $110 million was awarded to 13 research teams through the Program Grants scheme last year, from 23 applications. Almost all the funded applications focussed on the National Health Priority Areas, including five on cancer and four on cardiovascular disease. Six of the funded applications nominated themselves as being primarily in the Clinical Pillar, five in Basic Science and two in Health Services Research.
2012 Fellowships

The 2012 NHMRC Research Fellowships funding round saw 85 Research Fellowships being awarded, with 57 of the researchers already holding a Fellowship and 28 Fellowships being awarded to researchers appointed for the first time.

Nineteen Practitioner Fellowships were awarded in 2012, with ten to researchers already holding a Fellowship and nine to researchers appointed for the first time.

Sixty-two Career Development Fellowships were awarded in 2012, with 40 CDF Level 1 awards and 22 CDF Level 2 awards.

One hundred and twenty-eight Early Career Fellowships were awarded across all streams (biomedical, clinical and population health) of which 48 were for Overseas Fellowships (CJ Martin, Neil Hamilton Fairley and Sidney Sax Fellowships).

Two hundred and twenty-three applications were received for Postgraduate Fellowships and 123 scholarships were awarded across all streams. This was the first round of the revised Dora Lush Scholarships scheme, for support of people wishing to re-enter research.

NHMRC's Strategic Plan – what it means for researchers

My guess is that nothing bores the average researcher more than an institutional Strategic Plan. But I would like to mention a few features of our new plan which are of direct relevance to researchers. (For the dedicated, you can read it at http://www.nhmrc.gov.au/guidelines/publications/nh160).

- The new Research Translation Faculty will be a powerful force in formulating NHMRC's main actions (see Big Ideas for Action for the Big Challenges, below). The second Research Translation conference is being planned for October 2013. Steering groups and new IT infrastructure are currently being established.
- Streamlining our application and peer review will also be central this triennium. Our Strategic Plan commits to ‘Implement Research Committee advice to ensure efficient use of applicants’ and reviewers’ time and effort’ (and to) ‘Progressively introduce streamlined peer review.’ There is more on this later in this Newsletter, following the international workshop in February, with the US's National Institutes of Health Centre for Scientific Review, the Canadian Institutes of Health Research, the UK’s Medical Research Council, and the New Zealand Health Research Council.
- We will also introduce new ways of supporting large clinical trials. Our grant portfolio now and over the last decade has contained many highly impactful clinical trials. The governance and ethical approval aspects of clinical trials were also the subject of a report from the Clinical Trials Action Group and a recent announcement which will help NHMRC provide additional support for access to Australian clinical trials.
- In line with trends internationally, the community and consumers will become increasingly involved in health and medical research activities including NHMRC's processes. A new Statement on this involvement will shortly be released for discussion.
- We remain committed to the NHMRC Road Map II: A strategic framework for improving the health of Aboriginal and Torres Strait Islander people through research, and at least 5% of total NHMRC funding for research of direct relevance to Aboriginal and Torres Strait Islander Communities. We have also begun a thorough analysis of what has been achieved to date with NHMRC funding.
- We will conduct a comprehensive review on the breadth, balance and value of NHMRC's People Support Schemes, with a focus on future needs and the best balance in all areas needed over the next decades.
- We will have a major focus on increasing the longer term participation rate of women in health and medical research.
- We will work to promote stronger collaboration and sharing of resources in the health and medical research sector, especially between institutes and with Universities so we have as robust a sector as possible to meet the needs of researchers and face the challenges in research in the future.
Big Ideas for Action for big health challenges

We have ventured into a new era for NHMRC with the Research Translation Faculty. For each of 17 Major Health Issues identified as priorities in the new Strategic Plan, we will identify a ‘Big Idea’ and the priority ‘Action’ that NHMRC can implement.

We anticipate that transformational ideas will be developed to help NHMRC achieve its broad remit ‘improve individual and community health’ (NHMRC Act).

These Major Health Issues are the National Health Priority Areas of

- Arthritis and musculoskeletal conditions
- Asthma
- Cancer control
- Cardiovascular health and stroke
- Dementia
- Diabetes mellitus
- Injury prevention and control
- Mental health
- Obesity.

The eight other priority Major Health Issues identified in our Strategic Plan, include

- Improve the health of Aboriginal and Torres Strait Islander peoples through the support of health research and its translation
- Preparing Australia for the ‘omics’ revolution in health care
- Primary health care: helping practitioners and patients to gain value from research evidence, especially in areas of health inequalities
- Improving care of patients with multiple and complex chronic disease
- Health start for a health life
- Claiming benefits for human health not based on evidence
- New and emerging health threats – infectious diseases, environmental hazards, changes in the human environment
- Health and research in our region.

The Big Ideas for Action will be developed through the thousands of NHMRC funded researchers who have joined NHMRC’s Research Translation Faculty.

They will be scrutinised by the NHMRC Community and Consumer Advisory Group, tested by NHMRC’s Principal Committees and finally agreed by Council.

What might the Big Ideas include?

In some cases, there may be a crucial piece of research needed, research on how best to implement evidence, or how best to accomplish system change. In most cases however, it is likely that existing evidence will point to what needs to be done but where little is happening. NHMRC can use its role in public statements (such as on lead, wind farms, fluoridation) to inform the public and decision makers, consumers and the community. For some, there will be an opportunity to make recommendations to our Minister. For others there will be a need for new guidelines and advice to health authorities and the community. Sometimes, international collaboration may be needed. Sometimes, it might be an ethical issue that needs addressing.

This is the most strongly priority driven approach that NHMRC has ever taken. It is bound to ruffle some feathers, but it will provide NHMRC with a much more powerful voice to effect change.

Accelerating the benefits of research

Health and medical research seeks to make the future better than the past.

A huge body of knowledge has grown from more than a century of scientific research in health and medicine. The benefits that have flowed for humankind are immense. Yet the presence of ill health in our society and the burden of disease around the world show us that we have only just begun. Australians look to the NHMRC and the health and medical research community to make the future better.

NHMRC needs to consider the short and longer term challenges for and expectations of health and medical research in the future. Many of these were described in our original submission to the McKeon Committee. I have outlined some of these below.
■ **A health and medical research workforce ‘fit for purpose’**

It seems wrong somehow to describe the term 'workforce' to describe the people who work in health and medical research since researchers have such enthusiasm and altruism, show such dedication and work very long hours and with salaries below many of their peers in other professions. We must plan now for the doctors, scientists, technicians, nurses and other practitioners we need to conduct Australia’s health and medical research in the coming decades and to be the agents of change through research translation.

To plan for the future research workforce is not a simple task. Many organisations have a role, especially the university sector that trains doctors, other health professionals and scientists, but also the professional Colleges, the charitable research funding bodies and industry, as well as NHMRC.

The skills needed in health and medical research continue to change rapidly (e.g. think of bioinformatics, imaging technology expertise, data linkage expertise, the application of physical sciences and engineering to biology). The profile of researchers will also become more diverse in the future in line with the changes in the general Australian community.

Successive generations of Australians have changing expectations of a lifetime career in research. In the past, a move to a career other than research was too often seen by some as a ‘failure’. This needs to change. A career in research is a wonderful contribution to the future, but there are many other ways in which talented, research-trained Australians can contribute to the future health and prosperity of Australia and the world.

People who have gained the many skills needed to successfully complete a Ph.D. and who thereby bring an analytic, enquiring and project building view to their work are a valuable asset to the private sector (the OECD has reported that Australia unfortunately has one of the lowest rates of industry-based researchers in the developed world), public service, teaching, hospital administration, non-government agencies and government itself, as well as working as doctors, nurses, allied health workers and as teachers and academics. Graduates with science degrees and a Ph.D. have been attracted to research in large numbers in recent years. Much of this no doubt stimulated by the unprecedented growth in knowledge and excitement in the most basic cell and molecular biology and the clear potential for new approaches to treatment. I can see no diminution in this excitement in the foreseeable future! There will not however be sufficient NHMRC Fellowships for all these bright and highly motivated research trained folk and this talent could really help in other areas of the private and public sectors.

Council and others are concerned that too few doctors and other health professionals are entering research. While many have suggested explanations for the apparent decline in medical graduates (in particular) undertaking a research career, there can be little doubt that the differential in income between private practice and research salaries and increasing demands of the health system squeezing practitioners’ time for research, tells some of the story.

■ **Approaches to solving the big health questions are becoming more complex**

There has been a strong movement over the last couple of decades towards large scale research approaches to tackling the most difficult research questions, often with national and international consortiums and involving multidisciplinary approaches.

NHMRC has accelerated Australian participation in new international collaborative efforts by joining with the International Cancer Genome Consortium, the Global Alliance for Chronic Disease, the Human Frontier Science Program, the EU Research Framework programmes, the Californian Institute for Regenerative Medicine and with recent agreements with Singapore’s A*STAR and the National Natural Science Foundation of China.

NHMRC and research institutions need to ensure that as few barriers as possible are put in the way of collaboration. One impediment can be the differential provision of the indirect costs of research across the hospital, medical research institute and University sectors. Sharing of expensive equipment will become increasingly important and NHMRC hopes that the Advanced Health Research Centre concept (Integrated Health Research Centres in the words of the Interim Report of the McKeon review) will be another stimulus to collaboration, particularly of the bed-side to bench and back variety.

This increasing complexity of research and the need for collaboration is a special challenge for small institutions and those highly dependent on
competitive funding from NHMRC and other research funders. Worryingly, there are recent reports from the USA of small institutions that were highly dependent on NIH funding closing with flow-on effects for their staff. We should strive to avoid such effects on researchers here.

- Improving the health of Indigenous Australians

NHMRC’s most important priority is to support research and research translation that brings us closer to the goal of closing the gap between the health outcomes of our Aboriginal and Torres Strait Islander population and the rest of the Australian population.

Road Map II: A strategic framework for improving the health of Aboriginal and Torres Strait Islander people through research is NHMRC’s guiding document in this area. NHMRC continues its longstanding commitment to allocating at least 5% of research funding towards Indigenous health research each year and in 2011–2012 expenditure was almost 6% of NHMRC’s research budget total.

We have recently begun a rigorous analysis of what has been achieved through NHMRC’s funding to date and will draw out the policy lessons from this work.

We are creating a dedicated Aboriginal and Torres Strait Islander health webpage that will bring together all relevant Aboriginal and Torres Strait Islander resources, materials and funding information.

NHMRC has embarked on a new international research collaboration with the Canadian Institutes of Health Research (CIHR) and the Health Research Council of New Zealand (HRC) with the shared goal of improving the health of our respective Indigenous and First Nation peoples. A trilateral mentoring in research workshop will be held in Australia in May this year.

- Accelerating the benefits through partnerships.

Our Strategic Plan incorporates the Virtuous Cycle concept; how public investment in research benefits Australia through better prevention, health care and the development of new and better products and processes.

The Virtuous Cycle – Research leading to outcomes that benefit Australia

Policy and practice research

For many years, we’ve known that the rate at which new knowledge gets implemented in health practice and policy is too slow. For the last decade and a half, NHMRC has developed a number of new schemes as the first steps in the translation of research into practice, policy and innovation such as Centres of (Clinical, Public Health and Health Services) Research Excellence, Practitioner Fellowships, Targeted Calls for Research and Development Grants.

More recently, the Partnerships for Better Health initiative has provided support for research needs identified by decision makers in the public health sector, NGOs and industry. These NHMRC grants help to partner researchers with decision making organisations by providing half funding for research.

The Partnership Projects scheme now functions year round, with a number of closing dates. Currently, there are over 200 different organisations partnering with NHMRC and researchers in this scheme.
Partnership Centres are the second part of this initiative. This scheme supports the close collaboration of researchers and health policy and practice partners; firstly to ensure that research is tailored to address the health system’s research needs; and secondly, to provide access to an audience ready and willing to adopt the resulting evidence-informed health practices and policies. In the coming year the NHMRC hopes to announce the private and public sector funded Partnership Centres it has brokered that will each target a national priority health issue.

A high quality and financially sustainable health system will rely on decision makers having the best available evidence for their decisions, evidence from research. Evidence based guidelines are one important way in which this evidence is made available. NHMRC Council is currently discussing NHMRC’s roles in clinical and public health guideline development; important tools in the route between discovery and delivery.

Commercialisation and innovation

Though NHMRC is unable to fund commercial development though the Medical Research Endowment Account, we have offered Development Grants for proof-of-principle type research for more than a decade.

Private sector development is needed for the developments of new products for diagnosis and treatment out of research. This in turn benefits Australia through good jobs, the development of an innovative industry sector and in time financial returns to the investors and through taxation to the general community.

We recently had an independent review conducted on the outcomes of this scheme, which made a number of recommendations for Research Committee to consider. It was clear from the review that this scheme has been an outstanding success. The review looked at 40 grants in detail and found 85% had reached complete or partial proof of concept, 80% had secured a commercial partner in some form, 55% are currently under some form of possible commercial development, and six resulted in a product to market or were awaiting regulatory approval.

We held an Innovation Translation Forum in November last year.

Maintaining trust in research

For decades, maintaining high ethical standards in research has been at the centre of NHMRC’s work.

Our National Statement on Ethical Conduct in Human Research is a highly regarded, comprehensive document guiding all research with human participants. The Australian Code of Practice for the Care and Use of Animals for Scientific Purposes has also long been acknowledged as ground breaking internationally, providing a balance between the protection of research animals and their use to obtain knowledge. An 8th edition of this Code will be finalised in the latter half of 2013. The Australian Code for the Responsible Conduct of Research (ACRCC) sets out the principles and responsibility of institutions and researchers, and is another NHMRC standard that has few international equals.

NHMRC and ARC have set up a joint Australian Research Integrity Committee to receive complaints from individuals who have concerns that an institution did not follow the guidance in Part B of the Australian Code in an investigation of an allegation of research misconduct. To date, the ARIC has reviewed one case through NHMRC.

NHMRC has also a Commissioner for Complaints who has an independent role, established in the NHMRC Act. The Commissioner reviews complaints made against the NHMRC itself. In the last 6 years, the Commissioner has investigated 26 cases.

There has been increasing concern locally and internationally about failure to disclose conflicts of interest for researchers working with the pharmaceutical, biotech and other industry sectors. The need for openness and transparency in disclosing competing interests led NHMRC to draft additional guidance for this Chapter on Conflicts of Interest (Chapter 7) of the Australian Code for the Responsible Conduct of Research (with the Australian Research Council and Universities Australia). This draft has just been released for public comment here.

NHMRC and our Code partners are also developing a supplement to the Australian Code on so-called dual-use (or ‘gain of function’) research. This issue came to the fore during 2012 with debate regarding the publication of new research involving the H5N1, or avian influenza, virus (see http://www.nature.com/news/specials/mutantflu/index.html). NHMRC’s work will also support the government’s recent enactment of the
Defence Trade Controls Act 2012 which seeks to regulate the export of information and materials related to the supply or manufacture of weapons. In developing the Code supplement, NHMRC will consult with all stakeholders as we seek to meet Australia’s obligations under international agreements related to dual-use technology and to protect academic freedom and promote international research collaboration.

Quality and efficiency in granting

On a different note, there has been a lot of discussion recently regarding the time researchers spend preparing applications for grant funding and peer review.

NHMRC employs application and peer review processes that are broadly similar to all comparable government research funding agencies around the world. In particular, we use peer review of applications as a fundamental aspect of deciding how best to invest public money. The Australian community expect their funds to be invested in the best research that will return the greatest benefits and although peer review can have many forms, there are no acceptable alternatives!

So there are twin needs; to make sure that peer review is as capable as humanly possible of identifying the best research project ideas, the best fellowship applicants, the best programs of work and so on, while also minimising and abolishing needless or low value activities in applying and peer reviewing.

To address both these needs, we have begun a ‘streamlining’ process under our new Strategic Plan, and started our consultative processes through the recent ‘Evolutions in Peer Review’ symposium in Canberra. We invited four other international sister funding bodies to join us for the symposium; the National Institutes of Health, the Canadian Institutes of Health Research, the UK’s Medical Research Council and New Zealand’s Health Research Council. Presenters at the symposium also included authors of papers on peer review, journal editors (MJA and Nature), and many more individuals and institutional stakeholders. The Symposium received positive feedback from attendees and those who viewed the presentations through NHMRC’s website.

We presented a paper at the symposium that outlined some of the possibilities for discussion over the coming months. We are especially interested in how to increase use of Information Technology, including the possibilities of more virtual review processes.

Through NHMRC’s Research Committee, NHMRC is carefully considering the issues raised at the symposium and we plan to release a further discussion paper before the middle of the year. We will be working further with the other international organisations that attended our meeting. In particular we will look for evidence regarding the effectiveness of alternative approaches to current processes.

The focus of Streamlining is primarily on the Project Grants scheme, where most researchers interact with NHMRC and which comprises our largest grant scheme by far.

To work towards reducing the time taken by the research community in applying for grants, there will be a number of possibilities for discussion. First, RGMS’s ability to store key components of any application to NHMRC will when fully implemented, reduce duplication of effort when submitting multiple grants to NHMRC. We appreciate that RGMS can be difficult to navigate, but we are continually implementing improvements. Hopefully the ability to hold the CV material within RGMS does reduce time compared to the previous application technologies.

However, it’s fair to say that in fact researchers spend the most time preparing the scientific parts of their application and it is difficult to see how anything NHMRC does will substantially reduce this for many people. One suggestion that might help is that the total number of pages for the scientific part of the application could be reduced (currently shorter than NIH but longer than some other funders). Another possibility is an initial short Letter of Intent/Expression of Interest, though there is some evidence here and overseas that this increases the numbers of applications. We are also investigating if some of the data we need entered into RGMS in order to administer successful grants (and not needed for peer review) can be left until the peer review outcomes are known, since this is only needed for successful grants.

Finally, the number of applications submitted to NHMRC is determined by the researchers themselves and their institutions. Universities and medical research institutes continue to submit
more applications every year, meaning more time collectively spent preparing applications and reviewing them. One possibility raised at the ‘Evolutions in Peer Review’ symposium was for institutions to remove less competitive applications prior to submission or to impose some internal quota system. These would be very difficult to implement in reality. Another suggestion raised at the symposium would be to charge a submission fee, perhaps refundable for successful grants. I emphasise that neither of these are NHMRC policy!

It’s also fair to say that time spent reading the scientific literature, thinking, honing ideas with colleagues and turning these ideas into concrete proposals is never fully ‘wasted’. These activities are essential parts of academic life and are basic activities of active researchers leading to improved ideas, discarding of other ideas and plans, and a thorough reading of the literature. Researchers all over the world have to prepare applications to compete for research support from publicly funded organisations such as NHMRC, NIH and others. As well, applications prepared for NHMRC are often submitted to other funding agencies both in Australia and overseas (and vice versa) and research ideas and plans are often improved as investigators consider feedback from peer reviewers.

Meanwhile, some streamlining of applications will likely be possible for the 2014 round, just as we have streamlined the peer review snapshot for 2013. Any major changes will take longer than that and I can assure the community of extensive consultation before any major changes are introduced.

Leadership and partnership in research

Consumer and community participation

Health and medical research relies upon the participation of individuals and the community, in the form of volunteers for clinical trials, as well as financial and public support. Within NHMRC, community members participate as Council and Principal Committee members in the full range of our work.

NHMRC supports greater community involvement in the future. To this end, NHMRC and the Consumers Health Forum of Australia are jointly updating the 2002 Statement on Consumer and Community Participation in Health and Medical Research to assist with NHMRC’s intentions.

Global Alliance for Chronic Disease (GACD) research

In January this year, the GACD announced its intention to fund a second round of research projects, focusing on implementation research in the prevention and treatment of type 2 diabetes in low and middle income countries, and in Aboriginal communities (Canada and Australia).

China and India

In January this year, NHMRC and the National Natural Science Foundation of China (NNSFC) signed a Letter of Agreement for collaboration of Australian and Chinese researchers. An inaugural joint Scientific Workshop between NHMRC and NNSFC will be held in Australia mid-year.

We are also in discussions with the Indian Council of Medical Research to identify ways to strengthen cooperation between the health and medical research communities in Australia and India.

International Cancer Genome Consortium (ICGC)

Since 2008, the ICGC has been working to characterise a minimum of 500 unique cases for 50 different cancer types or subtypes that are of the highest clinical and societal importance across the globe. In December last year, the ICGC conducted its first data release from four projects: German Malignant Lymphoma, Canadian Prostate Cancer, German Prostate Cancer, U.K. Prostate Cancer; and new data from an additional 4 projects: Australian Pancreatic Cancer, Canadian Pancreatic Cancer, Japanese Liver Cancer, German Paediatric Brain Tumour. This data release comprises data from 7,358 cancer genomes.

Singapore’s A*STAR

A joint NHMRC and Singapore Agency for Science, Technology and Research (A*STAR) grant call for research into the use of integrative technologies to combat emerging infectious disease was initiated last year. Outcomes of the joint call will be announced shortly.
AusAID

Following the publication of AusAID’s Medical Research Strategy, NHMRC and AusAID are in discussions about collaborating on funding research in areas including malaria, tuberculosis, maternal and neonatal health conditions, diarrhoeal diseases, bacterial pneumonia and meningitis in the Asia-Pacific region. This Partnership would involve Australian researchers working with researchers in the Pacific and South Eastern Asia to build partnerships and build capacity in research on regional health issues. Research funded under this program is likely to commence in 2014.

Women in research

NHMRC is committed to supporting stronger progression and retention of women in health and medical research in Australia. Last year, NHMRC formed the Women in Science Working Committee to provide advice to NHMRC that will help achieve this goal.

The committee is currently focused on improving the assessment of track record for grant applications relative to opportunity, including career disruptions.

Some key points from the most recent funding announcement data to consider include:

- For applications in which a woman researcher was listed as Chief Investigator A, there was a lower funded rate (18%) compared to applications with a male Chief Investigator A (22%).
- Women (Chief Investigator A) had a higher funded rate (75.0%) than men (14.3%) for Partnership for Better Health Project Grants (small sample size).
- Postgraduate Scholarships: women continue to outnumber men in application numbers.
- Early Career Fellowships: women were 64% of all applicants for Australia based Fellowships and 50% for overseas Fellowships. The funded rate for women was 13% overall compared to 14% for male applicants.
- Career Developments Fellowships: women were 48% of all applicants and had a slightly lower funded rate at both levels (Level 1: 16% vs 19%; Level 2: 17 vs. 19%).
- Practitioner Fellowships: male applicants outnumbered women by almost 3-fold and women had a lower funded rate (7% versus 26%).
- NHMRC Research Fellowship: there were 122 male and 62 female applicants for a NHMRC Research Fellowship. In 2012, women applicants had a funded rate of 45.2% compared to 46.7% for men. Male applicants outnumbered females at all NHMRC Research Fellowship levels.

NHMRC is concerned about both the loss of women from the health and medical research workforce as they progress in seniority. We are pleased to learn of pro-active programs recently implemented at some of our leading Universities and Institutes.

We are also concerned that the differences in funded rates between men and women applicants in a number of our schemes may be developing as the funded rates fall during this era of flat NHMRC funding. We are committed to remedies based on evidence.

Deciding priorities

NHMRC finds itself in a somewhat unique place compared to most other comparable countries, being by far the largest source of competitive, peer reviewed funding for health and medical research in its own country (Australia has no Wellcome Trust, none of the large private philanthropies of the USA, no Genome Canada).

We have long interpreted this as meaning we have a responsibility to fund all research relevant to health. In fact, this has anyhow resulted in funded researchers tackling Australia’s major health burden areas in approximate proportion to the size of the burden itself.
Table 2: NHMRC funding attributed to the National Health Priority Areas

<table>
<thead>
<tr>
<th>National Health Priority Area</th>
<th>Funding 2012 (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>24.6</td>
</tr>
<tr>
<td>Asthma</td>
<td>18.6</td>
</tr>
<tr>
<td>Cancer</td>
<td>183.9</td>
</tr>
<tr>
<td>Cardiovascular Disease</td>
<td>107.9</td>
</tr>
<tr>
<td>Dementia</td>
<td>26.0</td>
</tr>
<tr>
<td>Diabetes</td>
<td>70.4</td>
</tr>
<tr>
<td>Injury</td>
<td>38.7</td>
</tr>
<tr>
<td>Mental Health</td>
<td>61.8</td>
</tr>
<tr>
<td>Obesity</td>
<td>38.5</td>
</tr>
</tbody>
</table>

Note: Many research grants attributed to the NHMPAs are multi-disciplinary and therefore there is double counting in these numbers. Once duplications are removed, approximately 55% of NHMRC research funding ($425 million in 2012) is attributed to an NHPA.

Priority can be looked at from other angles too – actions rather than topics. In our new Strategic Plan, we have committed to the following Priority Actions; to

Create new knowledge through support of discovery research
- For the benefit of Australia and the world.
- In any area relevant to improving health.

Accelerate research translation
- So that health care and the prevention of illness is based on evidence.

Build Australia’s future capability for research and translation
- By ensuring that Australia has the researchers, systems and translational capabilities to meet the challenges of the future.

Set high standards in ethics in health care and research
- So that health care and research is conducted ethically and with integrity.

Work with partners – States and Territories, health bodies, health industries and community and consumers groups
- To maximise the benefits to Australia’s health and prosperity from the work of NHMRC.

NHMRC and health advice

Wind farms review

NHMRC has commissioned a systematic review of the scientific literature to examine the possible impacts of wind farms on human health. The review considered a wide range of evidence (both peer reviewed and non-peer reviewed); including literature submitted by key stakeholders and the general public.

The systematic review will inform whether NHMRC’s 2010 Public Statement requires revision, as well as identifying critical gaps in the current evidence base and areas for further research. Public consultation on the outcomes of the systematic review is expected to occur in mid-2013.

Prostate Cancer guidelines

Currently, men receive inconsistent messages about the appropriateness of the PSA test to detect prostate cancer. With funding from the Department of Health and Ageing, NHMRC has commissioned an evaluation of the evidence to provide an objective and unbiased review of the scientific evidence relating to PSA testing in asymptomatic men.

When this evaluation is complete, NHMRC will develop an information document that will provide men and GPs evidence-based advice on the potential harms and benefits of PSA testing and of follow-up investigations and treatments. These documents are expected to be released in the second half of 2013.

Lead in the environment

NHMRC is commissioning a detailed review of the evidence on the health impacts of lead exposure under the guidance of its Lead Working Committee. The evidence will inform the revision of the 2009 NHMRC Public Statement and Information Paper on blood lead levels and the development of a new guidance document for health professionals on the management of individual exposure to lead in Australia.
Complementary and alternative medicine

Examining the health benefits of complementary and alternative medicine is a Major Health Issue identified in our Strategic Plan. As a first step, NHMRC is reviewing the evidence for the effectiveness of homeopathy. The review will comprise a systematic review of available systematic reviews on the effectiveness of homeopathy in treating a variety of clinical conditions in humans. The findings of this review will inform the development of an NHMRC information paper and position statement on homeopathy, which will be made available to the Australian community to help individuals make informed decisions about their health care.

Staying Healthy in Childcare

Providing evidence-based public health advice is a core element of the work of NHMRC. The fifth edition of one of NHMRC’s most popular public health publications, Staying healthy – Preventing infectious diseases in early childhood education and care services was released by Ministers Plibersek and Ellis last month. View the Media Release on the NHMRC website.

Road safety

NHMRC and the Australasian College of Road Safety (ACRS) hosted a workshop in February 2012 to help ACRS develop a National Road Safety Research Strategy.

Direct-to-consumer genetic testing resources

Health and medical research is constantly producing new knowledge and technologies that have implications for health care. NHMRC is committed to preparing Australia for the ‘omics’ revolution which will see scientific advances in the field of genetic research be translated into new ways of identifying and treating disease.

Late last year, NHMRC released two documents on DNA genetic testing, including a resource for consumers on direct-to-consumer tests. NHMRC is currently developing a similar resource for GPs, which will be available in mid-2013.

Our Human Genetics Advisory Committee is working on a broad agenda to help ensure that Australians benefit from the advances in this rapidly expanding area of research and translation.

Eat for Health

NHMRC’s released the Australian Dietary Guidelines in February, a comprehensive set of guidelines and advice based on the careful analysis of thousands of publications since the previous version of the guidelines in 2003. NHMRC has established an ‘Eat for Health’ portal (www.eatforhealth.gov.au) for the Guidelines and a range of consumer friendly additional material (funded by the Department of Health and Ageing).

And finally….

I really do invite your comments on any aspects of this Newsletter. We try too to provide as much data on our funding as possible through the Grants tab (www.nhmrc.gov.au/grants) on our home page. Comments can be emailed to ceo@nhmrc.gov.au.