



Australian Government

National Health and  
Medical Research Council

N H M R C

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**CONSULTATION PAPER**

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A Draft National Strategy for  
Medical Research and Public Health Research

June 2009

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ISBN Print: xxx

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# Developing a NHMRC Strategic Plan and a national strategy for medical research and public health research

The *National Health and Medical Research Council Act 1992 (NHMRC Act 1992)* requires the NHMRC to present a Strategic Plan to government on a triennial basis. The Strategic Plan must include a national strategy for medical research and public health research.

The next Strategic Plan will cover the period January 2010 – December 2012.

This Consultation Paper sets out a draft strategy for medical research and public health research. The draft Strategy has been developed through NHMRC's Research Committee and Council, has taken into account the recommendations of the three reviews<sup>1</sup> of our research funding and peer review processes, and has been shaped by ideas and issues raised by the research and health sectors through our regular consultations.

We now invite your comment.

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<sup>1</sup> Independent Review of the NHMRC Funding Process (the Bernstein Review); An International Perspective of the NHMRC's Research Strategies (the Zerhouni Review); and Report on the Review of Public Health Research Funding in Australia (the Nutbeam Review)



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# I Executive summary

NHMRC supports all research relevant to health across the four health and medical research “pillars”; biomedical, clinical, public health and health services research. NHMRC intends to contribute to improving the health by:

- **Creating knowledge** – investing in discovery research most likely to yield new knowledge through independent research initiated by our best researchers in biomedical and clinical research, public health and health services (see Section 3)
- **Translating knowledge** – supporting and applying the findings of research to improve health, and build innovation in Australia (see Section 4)
- **Building capacity to undertake research** – renewing and widening Australia’s pool of talented new researchers (see Section 5)
- **Being a good international citizen** – improving health in our region through international research activities (see Section 6)
- **Peer Review** – supporting the highest quality decision making through peer review (see Section 7)

## 2 Introduction

### Snapshot of the National Health and Medical Research Council

NHMRC's responsibilities are broader than comparable international governmental health and medical research funding agencies, such as the United States National Institutes of Health (NIH), the United Kingdom Medical Research Council (MRC) and Canadian Institutes of Health Research (CIHR). NHMRC is charged with multiple roles, as established by the *NHMRC Act 1992*, to:

- raise the standard of individual and public health throughout Australia
- foster the development of consistent health standards between the various States and Territories
- foster medical research and training and public health research and training throughout Australia
- foster consideration of ethical issues relating to health.

NHMRC is the largest single source of funding for health research in Australia. Most other countries with an advanced health and medical research sector have substantial funding agencies for health and medical research in addition to their government medical research agencies. In the USA these include philanthropic bodies such as the Howard Hughes Foundation and in the UK the Wellcome Trust and National Institute of Health Research. Unlike Australia, the scale of the charitable sector and the presence of large trusts in the USA and the UK in particular give researchers in these countries access to significant alternative funding sources.

Because Australian health and medical research comprises only about 3% of the world's health and medical research output, it is imperative that Australian researchers achieve the highest quality in order to contribute and compete globally, and to translate research performed globally. To continue to achieve at the highest international standards, NHMRC works hard to ensure that all funding schemes are subject to the most rigorous assessment.

NHMRC supports a range of scheme types for investigator driven creation of research knowledge, for building Australia's research capacity to undertake high quality health and medical research and for research translation into better health.

NHMRC has during this decade developed a wide range of targeted funding schemes to support Australian health and medical research. Reviews of NHMRC's funding and peer review processes (The Bernstein Review), NHMRC's research strategies (the Zerhouni Review), the review of public health research in Australia (The Nutbeam Report), Research Committee and Council discussions and stakeholder consultations have all contributed to the reshaping of our support schemes since 2000. For details on levels of funding provided under these different schemes, please refer to the NHMRC website <http://nhmrc.gov.au/grants/types/index.htm>

## Snapshot of issues and challenges for the next triennium

This is a time of significant change for Australia, for the nation's health system and for the research sector. Some of the major issues we face in 2009 that directly affect the research sector and the nation now and in coming years include:

- major government reviews aimed at health system reform. The government's response to the National Health and Hospitals Reform Commission and the Preventative Health Taskforce, and the development of a Primary Health Care Strategy are all expected in mid 2009
- a growing burden of chronic preventable conditions including, cardiovascular disease, type 2 diabetes and some cancers, and poor health caused by lifestyle and environmental factors including obesity, poor nutrition and lack of exercise
- an urgent need to improve the health of Aboriginal and Torres Strait Islander peoples
- the rapid growth in knowledge in human genetics and genomics, which will bring new opportunities in prevention, diagnosis and treatment, and also challenges to the health care system
- increasing pressure on health finances, including from new effective but more expensive treatments
- challenges for Australia in achieving uptake of evidence from research into population wide changes to improve health (such as reduced alcohol and tobacco use, and increased exercise)
- an emerging recognition of the importance of translational research and the need to reduce the time and knowledge gap between researchers and practising clinicians, decision makers and policy developers in implementing new knowledge
- the need for rapid responses when research is needed urgently, including emerging infectious diseases and around new public health initiatives
- continuing competition to recruit Australian research scientists by countries that have invested heavily in basic and applied research
- health research workforce issues such as increasing demands on time, career paths impediments, demographic changes and competing pressures on health care professionals
- increasing complexity in the work of researchers, particularly the technical skills base, the need for multi-disciplinary approaches, and ethical processes of science including open access to research findings, animal welfare, genetics and stem cell science
- increasing importance of a wider range of disciplines and research methodologies to tackle complex health issues
- increasing importance of advanced research facilities and infrastructure – gene sequencers, databases and long term cohort studies, specialised laboratories and linkages to large infrastructure such as synchrotrons and cyclotrons

The following sections outline how NHMRC intends to support health and medical research in Australia, and in our region through creating knowledge, translating knowledge, building capacity, being a good international citizen and improving peer review.

### 3 Creation of knowledge – NHMRC support for research

The creation of new knowledge through investigator driven research will continue to be the key strategy by which NHMRC makes a difference to the health and well being of all Australians.

NHMRC intends to support research into all matters relevant to our health, and ill health, from advanced genomics, through population dynamics, from health systems through to cell biology. We will support highest quality fundamental research and we will support applied research that is directly applicable to preventive health measures, primary or hospital based health care, or to the development of new devices and therapeutics, for commercial gain. We intend to support research about our human biology throughout life – maternal and child health, adolescence, chronic disease in adulthood, healthy ageing, and research about how our environments – physical, social, microbiological and economic – interact with and affect our health. We intend to support all health research disciplines including transdisciplinary and multidisciplinary approaches in the “four pillars” of health research – biomedical, clinical, public health and health services research.

Key features of NHMRC’s funding of research include:

- providing research funding on the basis of peer review, research excellence, and the ability of applicants to deliver
- funding investigator-initiated research and targeted calls for research
- supporting health and medical research across all disciplines
- providing competitive opportunities for new investigators
- collaborating with other funding bodies (national and international), especially the Australian Research Council and health charities
- ensuring a strong ethical framework for Australian health and medical research
- benchmarking ourselves, our processes and Australian research internationally and subject the agency to ongoing international scrutiny
- maintaining and extending health consumer input into Australian health and medical research.

## Overarching priorities and special initiatives

NHMRC intends to identify and support research that responds to priorities identified in the NHMRC Strategic Plan, including the major health issues likely to arise during the triennium (2009-2012).

NHMRC intends to give special priority to Indigenous health research. Our work in this area will be guided by *The NHMRC Road Map 2: A Strategic Framework for Improving Aboriginal and Torres Strait Islander Health Through Research 2009-2015* (due to be completed in time for inclusion in the Strategic Plan 2010-12). We are committed to expenditure of at least 5% of the Medical Research Endowment Account on Indigenous health, defined as meeting specific criteria and set out in the “Roadmap” *A Priority for Indigenous health research*.

We intend to continue to support innovative research. Innovation in research is highly regarded by NHMRC and is included as a criterion in assessment. As well, grants are provided as “one-line” to allow researchers flexibility in the pursuit of ideas.

### **For the next triennium, NHMRC intends to:**

- support research that responds to priorities identified in the NHMRC Strategic Plan, including the major health issues likely to arise over the next triennium
- maintain allocation of at least 5 percent of MREA to Aboriginal and Torres Strait Islander peoples research
- support innovative research ideas and researchers.

Funding vehicles for this triennium will continue to be Project Grants and Program Grants. In addition we will develop and expand our Targeted Calls for Research scheme.

## Project Grants

**Aim:** *To fund the best research, across the four pillars of basic and applied research.*

Health and medical research is constantly changing – new ideas and possibilities arise, methodology and technology improves and evolve, research approaches are increasing complex and multidisciplinary. Just to name a few examples, there are exciting prospects for improving human health arising from fundamental cell and molecular sciences, from systems biology and complex systems research, in the interface between biology and physical sciences, in major international collaborative research consortia. Informatics pervades all areas, the social and behavioural sciences become ever more important. The power of public health and health services research to illuminate the paths towards significant and sustainable improvements in public and individual health is large and growing and increasingly intersecting with human genetics. Researchers are increasingly working in collaboration – across institutions, States and international borders. The structures at Universities and other institutions change and evolve. Pressures in the health system profoundly affect research and research training. New models of integrating research, clinical care, and patient welfare and wellbeing emerge. Publication habits and customs change. Research funding schemes need to evolve and be flexible enough to be able to support the research that is needed now and into the future.

Project Grants remain the mainstay of NHMRC’s support for Australian health and medical research. The Project Grants scheme is investigator-initiated research, for any topic relevant to health, by an individual researcher or a team. Selection criteria include scientific merit, innovativeness, relevance, and the track record of the applicants relative to opportunity.

We will devote the largest single allocation of the Medical Research Endowment Account to supporting investigator initiated, discovery science through project grants to ensure that Australian health and medical researchers pursue the best and most relevant research. We will support research that adds value to the research undertaken by health and medical researchers throughout the world and ensure our research remains the highest quality using international benchmarks.

We will retain a modular grant approach, allowing researchers to direct resources as required achieving the project's goals.

***For the next triennium, NHMRC intends to:***

- maintain funding for Project Grants at around the current proportion of total MREA funding
- maintain our strategy to fund projects across all four research pillars and in any discipline
- continue to refine and develop our peer review processes, to ensure that all applications receive the best possible peer review.

## Program Grants

***Aim:*** *To support teams of researchers working in a program of research at the highest international level and to provide the team with flexibility in pursuing research goals.*

These grants support teams of researchers undertaking outstanding health and medical research. These are flexible one-line grants of five years' duration, awarded largely on the record of research achievement of the team members. Program Grants are typically held by established teams of outstanding Chief Investigators, working in major health areas with a strong history of support and high contemporary relevance.

NHMRC intends to maintain a balance between these large scale Program Grants and grants for outstanding single projects. As well as well established researchers pursuing specific research projects through this scheme, it is also important for new areas of research and newly emerging researchers who gain their support through the Project Grants scheme.

***For the next triennium, NHMRC intends to:***

- continue to support a robust Program Grants scheme
- maintain a balance between Project and Program grants
- continually review the peer review criteria for Program Grants to ensure they are appropriate for health services research, clinical research, public health and biomedical research approaches
- conduct a review of the achievements of the Program Grants scheme in 2011 (a decade after this scheme's introduction) to assess the relative value to Australia's health and its research output.

## Targeted calls for research

**Aim:** *To fund research where there are gaps in knowledge and where there is a pressing need for evidence and by providing research answers to urgent problems.*

NHMRC intends to introduce new approaches to target areas of special need for research through “Targeted Calls for Research” during the Project Grant funding round. These calls will primarily be based on issues identified in the NHMRC’s Strategic Plan and developed through NHMRC’s Principal Committees.

NHMRC intends to also call for urgently needed, specific research from time to time, using this funding mechanism. This will be based on advice from Research Committee and Council, as judged against NHMRC’s criteria for urgent research:

- immediate threat to public health
- potential to spread, population at risk
- unfamiliarity with the disease
- high morbidity or mortality
- broad economic impact of the threat.

### ***For the next triennium, NHMRC intends to :***

- introduce targeted calls for research to address the major health issues identified in the Strategic Plan. Research Committee will provide Council with advice on the relative priorities of competing suggestion from other Principal Committees, and the level of funding recommended from the MREA
- support research addressing the major public health interventions and initiatives in partnership with Commonwealth, State and Territory governments
- join new international collaborative research agreements, as recommended by Research Committee and Council
- continue to support urgent calls for research where there is a serious, rapidly evolving threat to public health.

## 4 Translate knowledge into practice

The greatest benefits that Australians gain from health and medical research are realised when knowledge gained from research is successfully translated into improved primary care, hospital care, aged care, and better preventative health strategies, and through new health diagnostics, technology and treatments.

We will work with health authorities to ensure our health care system is more firmly based on evidence from research. Health policy makers and decision makers benefit from evidence derived from Australian and international health and medical research, allowing improved management decisions and better healthcare delivery.

We will support the development of the evidence base that underpins our health care system, to ensure that effective and safe care can be provided, and inadequate and ineffective procedures and treatments can be eliminated. Australian health and medical research has led to outstanding advances in the way we now tackle disease and illness. We are better able to diagnose early, treat and cure diseases that only decades ago were considered untreatable.

Partnerships are at the core of the translation of research. NHMRC intends to support a number of schemes designed to achieve such synergies between researchers and those who need evidence derived from research. These include communities, health professionals, health planners and decision makers, and those responsible in government and the private sector for health policy development. NHMRC is able only to fund the research itself in such partnerships, consistent with the *NHMRC Act 1992*.

We will do what we can to ensure researchers and clinicians work closely together and a culture of evidence based practice is fostered. The health sector is innovative and constantly searching for better ways to help patients, from primary care services to women in pregnancy through to hospital and acute care of the aged, to improve our diagnosis and treatment methods and to contain costs. However our clinical practice and management systems are not always fully evidence based and sectors such as aged and primary care have less developed research capabilities. NHMRC intends to work across all areas of healthcare - primary and chronic, hospital and acute, and healthcare for the aged - to ensure research and clinicians work closely together and a culture of evidence based practice is fostered.

One major issue for the future is the impact of genomics on health care, it's potential in primary and secondary prevention, to grow rapidly as affordable gene profiles combining clinical and public health databases become available. This will require our health practitioners and our population to be well informed and involved in how such knowledge is used.

NHMRC intends to use three means of supporting the translation of research into improved health and commercialisation: Partnerships for Better Health, Centres of Research Excellence, and grants for research translation into commercial development (Development Grants).

## Research partnerships for better health initiative

**Aim:** *To support knowledge exchange and research translation in health practice and policy.*

As the centre-piece of NHMRC's knowledge exchange and research translation effort, NHMRC intends to support projects that partner researchers with those requiring evidence including health departments, the non-profit sector, and the private sector. This funding scheme is scheduled to run annually. NHMRC also expects to introduce Partnership Centres for Research Excellence, following consultation with the health and research communities.

### ***For the next triennium, NHMRC intends to:***

- respond to the reports of the National Health and Hospitals Reform Commission, the Preventative Health Taskforce and the Primary Health Care Strategy, and the government's responses to these
- continue to support new Partnership Projects for specific projects contingent upon a partnership being formed between researchers, policy makers, organisations or agencies such as State Health departments and non government organisations. There will be annual selection rounds. Following completion of the first round (in the second half of 2009), NHMRC intends to review whether any policy adjustments need to be made to this scheme
- introduce new Partnership Centres to bring together researchers, policy makers, organisations or agencies such as State health departments and non government organisations. The Centres will be significantly larger in scale than Partnership Projects and involve a matching of investment between NHMRC and partner organisations, who are expected to be drawn from a range of sectors. A discussion document will be released for consultation and feedback in mid 2009, with a view to finalising this scheme and introducing it in early 2010.

## Centres of Research Excellence

**Aim:** *To promote evidence-based best practice in health practice and policy and strengthen innovation in biotechnology.*

NHMRC intends to broaden its Centres of Excellence Scheme to provide leadership in the application of applied research findings in public health practice and policy, in evidence-based best practice in health services, to strengthen innovation in biotechnology. These will join our continuing Centres of Clinical Research Excellence (CCRE) scheme.

The Centres will be selected on the basis of research excellence and a record of research achievement including its translation into improved clinical, public health or health services practices. A small number of Centres will be selected on the basis of NHMRC's priorities as set out in this Strategic Plan, especially Indigenous health.

### ***For the next triennium, NHMRC intends to:***

- continue to support Centres of Clinical Research Excellence as a key element of NHMRC's clinical research commitment, together with the Practitioner Fellowship scheme, and the Clinical Early Career, Career Development and Research Fellowships schemes. The CCREs will be supported through an annual selection round
- support new Centres of Public Health Research Excellence and Centres of Health Services Research Excellence in 2009 which will replace the previous Capacity Building grants. These Centres will be supported through annual competitive funding rounds. They will be investigator initiated and will freely investigate issues in our health system
- consider new Centres of Research Excellence in Biomedical Industry Innovation to support biomedical science translation into better health care, new diagnostics, therapeutics, processes, software and devices.

## Collaborative research initiatives

**Aim:** *To promote opportunities to strengthen collaborative researcher activities, particularly around public health interventions and initiatives.*

Over the next three years NHMRC intends to seek out new collaborative research opportunities to work alongside other groups and agencies, such as:

- the Commonwealth Department of Health and Ageing
- State and Territory Health Departments
- Other Commonwealth and State authorities working towards improving health
- Consumer groups.

While these collaborations will be mainly facilitated through the Partnerships for Better Health scheme and the Project Grants scheme, we will also seek to work with other health and medical research bodies to support Australian collaborative research efforts.

### *For the next triennium, NHMRC intends to:*

- support research addressing the major public health interventions and initiatives in partnership with Commonwealth, State and Territory governments
- explore major new collaborative research agreements, as recommended by Research Committee and Council.

## Grants for research translation into commercial development (Development Grants)

**Aim:** *To assist Australian health and medical researchers gain proof of principle for potentially valuable Intellectual Property (IP) from discovery research.*

In the last decade, there has been strong growth in commercialisation activities by Australian health and medical researchers. NHMRC Development Grants scheme assists Australian health researchers gain proof of principle for potentially valuable IP from discovery research.

Government policy in the broader area of innovation has recently been announced (see *Powering Ideas. An innovation agenda for the 21<sup>st</sup> century*<sup>2</sup>).

NHMRC believes venture and investment capital is best pursued by the research organisations themselves for their own IP. However, NHMRC can help by developing a more accessible database of the research we support.

### *For the next triennium, NHMRC intends to:*

- remove the limits on the size and duration of Development Grants
- plan the development of "HMR-Central" an online portal for business and the national and international charities to identify researchers and research of high quality in the fields in which they share an interest.

<sup>2</sup> [http://www.innovation.gov.au/innovationreview/Documents/PoweringIdeas\\_fullreport.pdf](http://www.innovation.gov.au/innovationreview/Documents/PoweringIdeas_fullreport.pdf)

## 5 Build capacity to undertake research

NHMRC intends to continue with our successful strategy of building Australia's health research capacity. This has already served our nation well, by developing outstanding researchers who not only perform the highest quality research, but who also successfully translate research evidence into better clinical practice, who work in health policy areas, teach at Universities, develop and mentor the next generation of both health researchers and health professionals, and provide valuable IP through the commercialisation of their work. Their work also levers international funds into Australia, and allows Australia to participate at the highest levels in international health bodies such as the World Health Organization.

The selection and support of the best and most talented researchers is paramount to the success of Australia's health and medical research sector. Over this decade, NHMRC has reshaped its support, to expand research capacity beyond traditional areas such as biomedical research, and to increase our support of areas essential for research knowledge transfer to the health system, including clinical research, health services research and public health research.

To further develop our research capacity we will:

- continue to support our researchers through prestigious and highly competitive Fellowship and Scholarship schemes to support early career, mid career and senior researchers
- build researcher capacity in all disciplines needed to improve health, health services, public health, clinical and biomedical
- increase the flexibility of Fellowships schemes
- build expertise in knowledge translation
- give special priority to building Indigenous health research capacity.

In addition, we will continue our policy fostering new investigators through Project Grants.

### NHMRC Research Fellowships

***Aim: To enable outstanding researchers to pursue research full-time.***

This scheme has been instrumental in growing the quality and quantity of health research. NHMRC remains committed to this Research Fellowships scheme, which provides the opportunity for full time research for Australian researchers working at the highest international standards and at the forefront of new knowledge creation.

NHMRC Research Fellowships will be offered in all research approaches – biomedical, clinical, public health and health services research.

#### ***For the next triennium, NHMRC intends to:***

- remain committed to the Research Fellowships scheme, to support full time Australian researchers working at the highest international standards
- introduce adjustments to the scheme to ensure fairness and equity for all applicants and to increase flexibility.

## Career Development Awards

**Aim:** *To develop the careers of outstanding postdoctoral researchers across all approaches.*

Career Development Awards (CDAs) provide Australia with a cohort of outstanding researchers nearing the peak of their development. Researchers holding a CDA go on to many different careers – to be leading NHMRC Research Fellows, leading clinician researchers in our health system, and leading public health and health services researchers employed by a variety of bodies providing policy and analytic advice to our policy makers and decision makers. This scheme also supports innovative researchers who enter biotechnology and other industry employment, and provides our medical, health and biomedical science faculties in Universities with the next generation of research academics.

**For the next triennium, NHMRC intends to continue to offer researchers at their peak development periods CDAs:**

- continue to offer researchers at their peak development periods CDAs, available for all research approaches and continue to be available for two career stages - CDA 1 and 2
- increased flexibility will be introduced to assist researchers with family commitments.

## Early Career Fellowships (previously “Training Awards”)

**Aim:** *To provide support for outstanding researchers following completion of a research higher degree.*

These Fellowships will continue to support outstanding individual researchers as they take their first steps in research following completion of a research higher degree. We will therefore continue to support these fellowships which provide awardees with support to undertake research in overseas research groups, to broaden their experience, learn new methods and approaches, and built international networks.

We will also continue to support Early Career Fellowships that can be held here in Australia. As Australia’s health research widens and deepens, postdoctoral opportunities in this country grow. Variety and experience of different research teams, mentoring techniques and methodologies are an essential part of training in research and therefore NHMRC remains committed to the principle that postdoctoral Fellows receiving our awards should move to a new research group. These Fellowships will remain available for postdoctoral training in new research groups and environments.

**For the next triennium, NHMRC intends to:**

- continue to support the Fellowships for postdoctoral training in new research groups and environments in Australia and overseas
- improve the early career fellowships scheme to increase flexibility to help researchers who hold these awards with their family commitments.

## Practitioner Fellowships

**Aim:** *To strengthen the translation of evidence into clinical practice.*

NHMRC intends to continue to provide support for outstanding clinical and public health researchers who wish to maintain both a research and professional career in the health system.

### *For the next triennium, NHMRC intends to:*

- continue to provide part-time research Practitioner Fellowships for outstanding researchers who are also working to deliver clinical care.

## Scholarships

**Aim:** *To provide targeted scholarships for outstanding higher degree students.*

NHMRC intends to continue to offer scholarships for research training for:

- Students not normally awarded Australian Postgraduate Awards – e.g. health professionals without undergraduate/Honours research experience;
- Aboriginal and Torres Strait Islander people; and
- Areas of future need identified by NHMRC. This will include emerging areas, or areas in need of a stronger research based professional workforce (e.g. bioinformatics).

### *For the next triennium, NHMRC intends to:*

- continue to offer scholarships for research training focussed on support of students who do not qualify normally for Australian postgraduate awards, and in areas of identified need.

## Aboriginal and Torres Strait Islander research capacity

**Aim:** *To increase the numbers of Aboriginal and Torres Strait Islander peoples in health and medical research.*

NHMRC intends to work over this triennium to build the capacity of Aboriginal people and Torres Strait Islanders to undertake research across all research approaches. Through the *Roadmap 2* strategies, we will ensure that the research and other achievements of Indigenous researchers are properly recognised in the selection criteria for our Early Career, Career Development and NHMRC Research Fellowships, with a view to developing leaders and a strong cohort of Indigenous researchers in Australia.

### *For the next triennium, NHMRC intends to:*

- remain committed to strengthening Australia's Aboriginal and Torres Strait Islander health research capacity and increase Indigenous health and medical researchers in all aspects of health and medical research
- maintain allocation of at least 5 percent of MREA to Aboriginal and Torres Strait Islander health research
- implement the NHMRC Roadmap 2: A Strategic Framework for Improving Aboriginal and Torres Strait Islanders Health Through Research 2009-2015 that will guide NHMRC's research support initiatives over the triennium.

## Research Facilities Capacity Building (Enabling Grants)

**Aim:** *To provide support for key national health and medical research facilities.*

Facilities and equipment needed to undertake research and the indirect costs of research are provided by a diverse range of mechanisms in hospitals, universities and independent Medical Research Institutes. Consistent with the *NHMRC Act 1992*, NHMRC provides support through the Enabling Grants Scheme, for facilities essential for the research we fund and not funded through other means.

Major research facility infrastructure is provided through other schemes, including the newly announced National Research Infrastructure Committee, the Higher Education Innovation Fund and the Health and Hospitals Infrastructure Fund.

NHMRC supports a small number of facilities crucial to the national health and medical research effort and accessed by researchers anywhere in Australia. On the basis on rigorous selection processes, NHMRC intends to continue to support national health and medical research facilities through the Enabling Grants scheme.

### *For the next triennium, NHMRC intends to:*

- continue to support through the Enabling Grants Scheme, national facilities and equipment needed to undertake research, and for 'niche' facilities essential for the research we fund, where such facilities are not funded through other means.

## Collaborative initiatives to build researcher capacity

**Aim:** *To promote collaborative initiatives to improve our researcher capacity.*

Over the next three years NHMRC intends to seek out new collaborative research capacity building opportunities to work alongside other groups and agencies, such as charitable and private sector organisations, whose aims are compatible with the aims of NHMRC's Strategic Plan.

### *For the next triennium, NHMRC intends to:*

- explore major new collaborative research capacity building agreements, as recommended by Research Committee and Council.

## International Partnerships

**Aim:** *To contribute to global improvements to human health.*

NHMRC-supported participation in new international projects has ensured Australia can benefit immediately in emerging research fields, and contribute to global health projects (e.g. International Cancer Genome Consortium, Global Alliance for Chronic Disease). Our international partnerships provide an excellent mechanism to test Australian capabilities to ensure we can provide the highest quality input into global health initiatives.

***For the next triennium, NHMRC intends to:***

- continue to explore Australian researchers' involvement in global research collaborations such as the International Cancer Genome Consortium, Tripartite Agreement on Indigenous Health (Australia, New Zealand, Canada), the European Union 7<sup>th</sup> Framework and the Human Frontier Science Programme as part of our contribution to improving health world-wide.

## 6 Being a good international citizen

**Aim:** *To support activities across our region to improve health, and strengthen local research capacity.*

Improving health through research is an international activity, and Australia has responsibilities as an advanced scientific country, in a region of health inequalities in the world.

The 21<sup>st</sup> century is increasingly a time of international cooperation on global problems and issues. This is especially true in health, where recent initiatives have built on the existing mechanisms such as those of WHO and UNESCO.

### International engagement

NHMRC supports Australian researchers to participate internationally by:

- Allowing use of research funds outside Australia, provided the funds are administered through an Australian administering institution and in accord with the grant
- Working in partnership with international bodies to fund research (eg Wellcome Trust program, JDRF). A particular exchange is the three way agreement between NHMRC, New Zealand's Health Research Council and Canada's CIHR, to fund research and research exchange into Indigenous and native peoples health in the three countries
- Joining international research consortiums, to the extent possible with available funds. In 2008, NHMRC joined the International Cancer Genome Consortium and has recently joined a group of funding agencies who wish to address the huge non-communicable disease burdens in developing countries
- Bilateral agreements and exchange programs, (eg INSERM, China-Australia Exchange program).

Our region of the world is rapidly becoming a major player in global health and medical research. China, Singapore, South Korea, Japan and India have all been rapidly expanding their high-quality research efforts. As a result, within the next decade we will be part of the most exciting research arena. We must build our relationships and bonds locally to place us in good stead for this exciting future.

## International support

Our region also contains many countries and people who suffer the diseases of poverty and disadvantage. NHMRC can play a significant role through research into these health problems of our region and in helping build regional research capacities. In particular, we can help support the training of health professionals in research and consequently greatly improve research knowledge transfer and so achieve health gains throughout the region.

### *For the next triennium, NHMRC intends to:*

- work to develop alliances in research and researcher exchange with the major new scientific giants in Eastern Asia, including China, Japan, South Korea, India and Malaysia
- actively pursue collaborative research efforts with other bodies, inside and outside Australia, to undertake research on the major public health problems of the countries in our region. We will also seek to form collaborative partnerships with international philanthropic groups towards aims such as improving prevention and treatment of chronic and infectious diseases, and improving child and maternal health in developing nations in the South-East Asian and Western Pacific regions.

## 7 Peer review

**Aim:** *To identify and fund the highest quality, most competitive research ideas and researchers based on expert peer review.*

Highest quality peer review is critical to health and medical research and fundamental to decisions about which research and researchers to fund. The good reputation of peer review relies on both the fact and perception experts have objectively assessed the quality of research proposals without fear or favour. The processes involved need to be as transparent as possible, and recognised as fair.

NHMRC intends to continue to provide funding to research on the basis of peer review. Research proposals will be evaluated by others who have knowledge, skills and experience in the research proposed.

Peer review occurs within a framework established by NHMRC upon advice from the Research Committee, which sets out how this is to be achieved; the nature of external assessment, the nature and make up of panels, the nature of feedback.

To ensure independent feedback, NHMRC now uses observers of our peer review processes.

NHMRC also has a policy to encourage the involvement of health consumers in health research and will continue to develop this policy, and the numbers and extent of consumers involved over this triennium.

### ***For the next triennium, NHMRC intends to:***

- Ensure that peer review of all schemes is undertaken in ways appropriate to and informed by the types of research approaches involved, and the objectives of the research
- Work to ensure that our peer review processes are appropriate for multidisciplinary and interdisciplinary research
- Remain committed to subjecting our processes to thorough independent interrogation, including through the independent community observers on peer review panels, through reporting to Research Committee, and by publishing the outcomes of funding rounds and analysis of the results
- Maximise the use of internet-based technologies to improve lodgement of grant applications, and improve peer review processes facilitating the use of reviewers from around the world in our peer review processes. Improved electronic notification of NHMRC funding priorities and scheme deadlines will be implemented in 2009
- Establish a process to formally recognise those researchers who undertake peer review for the NHMRC.

## Appendix I NHMRC Funding Schemes to meet its aims in Health and Medical Research

**TABLE I CREATION OF KNOWLEDGE (see section 3)**

Aim	Funding Scheme	For the next triennium, NHMRC intends to:
<p>To fund the best research, across the four pillars of basic and applied research.</p>	<p><b>Project Grants</b>, the mainstay of NHMRC's support for Australian health and medical research, support investigator-initiated research projects for any topic relevant to health. Selection criteria include scientific merit, innovation, relevance, and the record of achievement of the applicants relative to opportunity.</p>	<ul style="list-style-type: none"> <li>• Maintain funding for <b>Project Grants</b> at around the current proportion of total MREA funding</li> <li>• Maintain our strategy to fund projects across all 4 pillars and any discipline</li> <li>• Continue to refine and develop our peer review processes, to ensure that all applications receive the best possible peer review.</li> </ul>
<p>To support teams of researchers working in a program of research at the highest international level and to provide the team with flexibility in pursuing research goals.</p>	<p><b>Program Grants</b> support teams of researchers, and are awarded largely on the collective record of research achievements in the previous five years previously. These are flexible, "one-line" grants of five years duration, and Chief Investigators have flexibility to use the resources provided to follow the most promising lines of research during that period.</p>	<ul style="list-style-type: none"> <li>• Continue to support a robust <b>Program Grants</b> scheme</li> <li>• Maintain funding in order to achieve a balance between <b>Project and Program grants</b></li> <li>• Continually review the peer review criteria for <b>Program Grants</b> to ensure they are appropriate for health services research, clinical research, public health and biomedical research approaches</li> <li>• Conduct a review of the achievements of the <b>Program Grants</b> scheme in 2011 (a decade after this scheme's introduction) to assess the relative value to Australia's health and its research output.</li> </ul>
<p>To fund research where there are gaps in knowledge and where there is a pressing need for evidence and by providing research answers to urgent problems.</p>	<p><b>Targeted Calls for Research</b> focussing on areas of special need for research. These needs will be identified through NHMRC's strategic planning and NHMRC's Principal Committees.</p>	<ul style="list-style-type: none"> <li>• Introduce <b>Targeted Calls for Rresearch</b> to address the major health issues identified in the Strategic Plan. Research Committee will provide Council with advice on the relative priorities of competing suggestion from other principal Committees, and the level of funding recommended from the MREA</li> <li>• Support research addressing the major public health interventions and initiatives in partnership with Commonwealth, State and Territory governments</li> <li>• Join new international collaborative research agreements, as recommended by Research Committee and Council</li> <li>• Continue to support urgent calls for Research where there is a serious, rapidly evolving threat to public health.</li> </ul>

TABLE 2 TRANSLATION OF KNOWLEDGE (see section 4)

Aim	Funding scheme	For the next triennium, NHMRC intends to:
To support knowledge exchange and research translation in health practice and policy.	<p><b>Research Partnerships for Better Health Initiative</b> has been introduced in 2008 and will continue.</p> <p><b>“Partnership Projects”</b> bringing together researchers with those requiring evidence from research to improve health practice and to develop health policy.</p> <p><b>“Partnership Centres”</b> will provide nodes and networks in which Australia’s capacity to improve health services through research will be enhanced. It is anticipated that this will commence in 2010.</p>	<ul style="list-style-type: none"> <li>• Respond to the reports of the National Health and Hospitals Reform Commission, the Preventative Health Taskforce and the Primary Health Care Strategy, and the government’s responses to these</li> <li>• Continue to support new <b>Partnership Projects</b> for specific projects contingent upon a partnership being formed between researchers, policy makers, organisations or agencies such as State Health departments and non government organisations. There will be annual selection rounds. Following completion of the first round (in the second half of 2009), NHMRC intends to review whether any policy adjustments need to be made to this scheme</li> <li>• Introduce new <b>Partnership Centres</b> to bring together researchers, policy makers, organisations or agencies such as State Health departments and non government organisations. The Centres will be significantly larger in scale than Partnership Projects and involve a matching of investment between NHMRC and partner organisations, who are expected to be drawn from a range of sectors. A discussion document will be released for consultation and feedback in mid 2009, with a view to finalising this scheme and introducing it in early 2010.</li> </ul>
To promote evidence-based best practice in health practice and policy and strengthen innovation in biotechnology.	The <b>Centres of Research Excellence scheme</b> will be broadened. NHMRC intends to add to its Centres of Clinical Research Excellence (CCRE) scheme, by transforming the Capacity Building Grants in Population Health Research into Centres of Research Excellence (CRE) providing leadership in public health and health services practice and policy.	<ul style="list-style-type: none"> <li>• Continue to support <b>Centres of Clinical Research Excellence</b> as a key element of NHMRC’s clinical research commitment, together with the Practitioner Fellowship scheme, and the Clinical Early Career, Career Development and Research Fellowships schemes. The CCREs will be supported through an annual selection round</li> <li>• Support new <b>Centres of Public Health Research Excellence and Centres of Health Services Research Excellence</b> in 2009 which will replace the previous Capacity Building grants. These Centres will be supported through annual competitive funding rounds. They will be investigator initiated and will freely investigate issues in our health system</li> <li>• Consider new <b>Centres of Research Excellence in Biomedical Industry Innovation</b> to support biomedical science translation into better health care, new diagnostics, therapeutics, processes, software and devices.</li> </ul>
To promote opportunities to strengthen collaborative researcher activities particularly around public health interventions and initiatives.		<ul style="list-style-type: none"> <li>• Support research addressing the major public health interventions and initiatives in partnership with Commonwealth, State and Territory governments</li> <li>• Explore major new collaborative research agreements, as recommended by Research Committee and Council.</li> </ul>
To assist Australian health and medical researchers gain proof of principle for potentially valuable IP from discovery research.	<b>Development Grants</b> support research to improve prospects for research translation into early commercial development, and will be enhanced by removing the previous limits on size and duration.	<ul style="list-style-type: none"> <li>• Remove the limits on the size and duration of <b>Development Grants</b></li> <li>• Plan the development of “HMR-Central” an online portal for business and the national and international charities to identify researchers and research of high quality in the fields in which they share an interest.</li> </ul>

**TABLE 3 BUILDING AUSTRALIA’S HEALTH AND MEDICAL RESEARCH CAPACITY (see section 5)**

Aim	Funding scheme	For the next triennium, NHMRC intends to:
To enable outstanding researchers to pursue research full-time.	<b>NHMRC Research Fellowships</b> support full time Australian researchers working across all approaches at the highest international standards. Highly competitive, NHMRC Fellowships are available in all four pillars, and are renewable.	<ul style="list-style-type: none"> <li>• Remain committed to the <b>Research Fellowships</b> scheme, to support full time Australian researchers working at the highest international standards</li> <li>• Introduce adjustments to the scheme to ensure fairness and equity for all applicants to increase flexibility.</li> </ul>
To develop the careers of outstanding postdoctoral researchers across all approaches.	<b>Career Development Awards</b> provide the most outstanding emerging health and medical researchers with full time support for 5 years, at the crucial period following early postdoctoral years.	<ul style="list-style-type: none"> <li>• Continue to offer researchers at their peak development periods <b>Career Development Awards</b>, available for all research approaches and continue to be available for two career stages - CDA 1 and 2</li> <li>• Increased flexibility will be introduced to assist researchers with family commitments.</li> </ul>
To provide support for outstanding researchers following completion of a research higher degree.	<b>Early Career Fellowships</b> provide opportunities for Australian researchers to undertake research that is both of major importance in its field and of benefit to Australian health. These Fellowships provide a vehicle for training in research either in Australia or overseas (where appropriate), to enable Fellows to work on research projects with nominated supervisors.	<ul style="list-style-type: none"> <li>• Continue to support the Fellowships for postdoctoral training in new research groups and environments in Australia and overseas</li> <li>• Improve the early career fellowships scheme to increase flexibility to help researchers who hold these awards with their family commitments.</li> </ul>
To strengthen the translation of evidence into clinical practice.	<b>Practitioner Fellowships</b> provide support for experienced and productive clinical and public health researchers who wish to maintain both a research and professional career in clinical care.	<ul style="list-style-type: none"> <li>• Continue to provide part-time research <b>Practitioner Fellowships</b> for outstanding researchers who are also working to deliver clinical care.</li> </ul>
To provide targeted scholarships for outstanding higher degree students.	<b>Scholarships</b> support outstanding Australian health and medical graduates early in their career so that they can be trained to conduct research that is internationally competitive and develop a capacity for original independent research. This is usually achieved by funding scholars to attain a PhD by full-time research.	<ul style="list-style-type: none"> <li>• Continue to offer <b>scholarships</b> for research training for health professionals without undergraduate/Honours research experience, Aboriginal and Torres Strait Islander people, and areas of future need identified by NHMRC. NHMRC <b>scholarships</b> are focussed on support of students who do not qualify normally for Australian postgraduate awards, due to non-standard undergraduate/ Honours degree programs.</li> </ul>

**TABLE 3 BUILDING AUSTRALIA'S HEALTH AND MEDICAL RESEARCH CAPACITY (see section 5)**

Aim	Funding scheme	For the next triennium, NHMRC intends to:
To increase the numbers of Aboriginal and Torres Strait Islander peoples in health and medical research.	<b>Aboriginal and Torres Strait Islander research capacity</b> is a primary commitment of NHMRC. We will introduce a range of measures to increase Indigenous health and medical researchers in all aspects of health and medical research and, through consultation, work to increase the mentoring of young Aboriginal and Torres Strait Islander researchers.	<ul style="list-style-type: none"> <li>• Remain committed to strengthening Australia's <b>Aboriginal and Torres Strait Islander health research capacity</b> and increase Indigenous health and medical researchers in all aspects of health and medical research</li> <li>• Maintain allocation of at least 5 percent of MREA to Aboriginal and Torres Strait Islander peoples research</li> <li>• Implement the <i>NHMRC Roadmap 2: A Strategic Framework for Improving Aboriginal and Torres Strait Islanders Health Through Research 2009-2015</i> that will guide NHMRC's research support initiatives over the triennium.</li> </ul>
To provide support for key national health and medical research facilities.	<b>Enabling Grants Scheme</b> assists Australian researchers to continue high quality, world-class research by providing support for specific facilities and/or activities to enhance the national health and medical research effort.	<ul style="list-style-type: none"> <li>• Continue to support through the <b>Enabling Grants Scheme</b>, national facilities and equipment needed to undertake research, and for 'niche' facilities essential for the research we fund, where such facilities are not funded through other means.</li> </ul>
To promote collaborative initiatives to improve our researcher capacity.	(Collaborative Research Capacity Building Initiatives)	<ul style="list-style-type: none"> <li>• Explore major new collaborative research capacity building agreements, as recommended by Research Committee and Council.</li> </ul>
To contribute to global improvements to human health.	International partnership opportunities.	<ul style="list-style-type: none"> <li>• Continue to explore Australian researchers' involvement in global research collaborations such as the International Cancer Genome Consortium, Tripartite Agreement on Indigenous Health (Australia, New Zealand, Canada), the European Union 7<sup>th</sup> Framework and the Human Frontier Science Programme as part of our contribution to improving health world-wide.</li> </ul>

**TABLE 4 BEING A GOOD INTERNATIONAL CITIZEN (see section 6)**

Aim	Funding scheme	For the next triennium, NHMRC intends to:
To support activities across our region to improve health, and strengthen local research capacity.		<ul style="list-style-type: none"> <li>• Work to develop alliances in research and researcher exchange with the major new scientific giants in Eastern Asia, including China, Japan, South Korea, India and Malaysia</li> <li>• Actively pursue collaborative research efforts with other bodies, inside and outside Australia, to undertake research on the major public health problems of the countries in our region. We will also seek to form collaborative partnerships with international philanthropic groups towards aims such as improving prevention and treatment of chronic and infectious diseases, and improving child and maternal health in developing nations in the South-East Asian and Western Pacific regions.</li> </ul>

**TABLE 5 PEER REVIEW (see section 7 )**

Aim	Funding scheme	For the next triennium, NHMRC intends to:
To identify and fund the highest quality, most competitive research ideas and researchers based on expert peer review.	Applicable to all funding schemes.	<ul style="list-style-type: none"> <li>• Ensure that peer review of all schemes is undertaken in ways appropriate to and informed by the types of research approaches involved, and the objectives of the research</li> <li>• Work to ensure that our peer review processes are appropriate for multidisciplinary and interdisciplinary research</li> <li>• Remain committed to subjecting our processes to thorough independent interrogation, including through the independent community observers on peer review panels, through reporting to Research Committee, and by publishing the outcomes of funding rounds and analysis of the results</li> <li>• Maximise the use of internet-based technologies to improve lodgement of grant applications, and improve peer review processes facilitating the use of reviewers from around the world in our peer review processes. Improved electronic notification of NHMRC funding priorities and scheme deadlines will be implemented in 2009</li> <li>• Establish a process to formally recognise those researchers who undertake peer review for the NHMRC.</li> </ul>