Submission to McKeon Review of Health and Medical Research

Menzies School of Health Research March 2012

Summary (max 300 words)

Menzies recommends that Australia's health and medical research strategic priorities include Indigenous Health, Northern Australia and Global Health.

Health research management and funding changes to achieve these goals could include:

Indigenous health
- Selection criteria for fellowships and grants more friendly to Indigenous research and researchers
- Capacity development of Indigenous researchers including at community level.
- Costing support for the particular challenges of Indigenous health research.

Northern Australia
- There would be much to be gained in creation of a Centre of Excellence in Northern Australia Health,

Funding the full costs of research
- Finding ways to support smaller regional institutions with a limited funding base

People Support
- More flexibility for researchers who do not follow the standard career path.

Women researchers
- More flexibility and targeted programs for women researchers with career interruptions due to children.

Global health
- Making health research a plank of foreign policy
- Maintaining global health as an NHMRC priority and continuing funding accordingly.
- Leveraging additional funding from AusAID and international collaborations.

Research Translation
- Better define and measure research translation in selection criteria.
- Better support the particular challenges of research translation in regional, remote and community settings.

What should Australia's health and medical research strategic directions and priorities be and how might we achieve them?

Menzies makes three recommendations for strategic directions for Australian health and medical research:

Indigenous health is a national priority and must remain a key strategic priority area for medical and health research, built around some or all of the COAG *Closing the Gap* targets. Indigenous health should be broadly defined to take into account relationships between (largely western) Governments and health service providers and Indigenous communities, successful models of how Government departments can cooperate with researchers and communities, and culturally appropriate (and hence more likely to be successful) methods of translating knowledge.

This should be followed through in a number of ways: a stand-alone Government-funded Centre of some type; stand-alone NHMRC funding programs for Indigenous health, and also mainstreamed throughout the bulk of our medical and health research, as it has been up until now.

The aims of stand-alone structures or programs in Indigenous health could include to:

- Support implementation of research-informed changes in health and health care systems. Governments and health care providers are trying a number of different programs to improve their engagement with Indigenous communities but often these are not based on evidence of what does and does not work.
- Undertake synthesis and dissemination of research relevant to improving health and health care system performance. In Menzies' experience the credibility and partnerships arising from original research with Indigenous communities and organisations is essential to be able to credibly disseminate the results in a way that will be listened to.
- Build capacity within the research community to do applied research, and within the healthcare system to use research as part of change management. This could take a number of forms:
    - Building the capacity of the (largely western) research community to undertake meaningful partnerships with Indigenous communities and organisations – essential for both successful research and its translation
    - Building the capacity of Indigenous researchers, many of whom need more and different support than the current NHMRC People Support Schemes can provide
    - Building the capacity of Indigenous communities to be equal partners in research and to set community research priorities and build training and employment opportunities in the communities in health research. This includes Indigenous community and Indigenous health organisations. Aboriginal Community Controlled Health Organisations are key partners in Indigenous health research, and have their own particular capacity and issues and views about medical and health research. Menzies is not in a position to speak for these organsiations and strongly recommends that the McKeon review consult them separately.

Indigenous health research requires deep and genuine collaborations with Indigenous organisations and communities. National and international evidence supports the need for the sustainable engagement of intended beneficiaries, in order to improve chances of success. Menzies has demonstrated that this can be done while still retaining the highest quality in research standards and rigorous research methodologies. Menzies has shown that even randomised control trials can be conducted in remote community settings with strong engagement from and participation of local people.

This ensures that applied and translational research programs are responsive to community needs, and that they achieve the levels of cultural competence which we know are necessary to ensure sustainability. Partnerships with Indigenous organisations, particularly community organisations, require particular ways of working which challenge accepted western notions of efficient timeframes, and have additional budgetary implications. These consequences will need to be taken into account.

Northern Australian health combines elements of tropical health and health in the desert - research which so far has lacked coordination and institutional support; elements of Indigenous health as per the previous point (given the relatively larger Indigenous population in northern Australia) and relationships with our near South East Asia and Pacific neighbours.

Many of today's global health challenges disproportionately affect tropical and desert regions, and as the planet warms the conditions that support tropical diseases in Australia (such as malaria, dengue and other viruses) will spread. Improving our applied research and translational capacity, and collaborations with and capacity building of ourselves and our regional neighbours in strategies to combat these health threats will be of direct economic, health and security benefit to Australia.

Global health. The benefits to Australia from international research can be easily demonstrated. The health benefits can be profound. There are many examples of this; but just three examples arising from Menzies' work are:

- The joint Menzies-NIHRD Research Facility was involved in the South East Asian Severe Malaria Treatment study, a study that demonstrated a 35% reduction of mortality of severe malaria associated with artesunate compared to quinine. The results not only changed policy and practice in Indonesia as a whole, but also global policy with WHO changing their treatment recommendations of severe malaria from quinine to artesunate.
- Randomised clinical trials of malaria that have changed Indonesian and Australian treatment policies for community management of falciparum and vivax malaria
- Creation of Rheumatic Heart Disease control and prevention programs in Fiji, Samoa, Tonga, Tuvalu, Vanuatu and Nauru. The work done through these projects also benefits Aboriginal communities in the Top End.

Australia can also benefit from supporting the next generation of international health leaders. For example Dr Nelson Martin from Timor Leste completed his PhD through Menzies in 2007, which focused on tuberculosis control in Timor Leste. He was the first ever East Timorese medical practitioner to gain PhD qualifications, and in 2007 he became Minister of Health in Timor Leste. The continued partnerships arising from this relationship benefit both countries.

More generally it has been well documented that:

- Regional security can be directly affected by factors such as pandemics, or indirectly compromised by social instability caused by high rates of mortality and morbidity, which can be addressed by international research collaborations;
- Regional economic growth can be similarly compromised by health-related factors;
- The impact of global warming on the region is known to take health dimensions;
- Enhancing health research partnerships between Australia and other countries in our region will yield health information of benefit to Australia and partner countries, and help to build research and broader academic capacity both for Australia and partner countries. An example of this is the current Research Twinning Relationship Menzies has with the Ministry of Health in East Timor. Applying evidence from years of experience in indigenous health research administration and ethics governance, Menzies works with the ministry to build staff capacity and process to better manage health research.

Medical research therefore can play an important role in assisting Australia to expand its relationship with the countries of our region and to play its role in helping to meet Australia's commitments to the region.

How might health and medical research be best managed and funded in Australia?

This section addresses some of the 'how' associated with the above Indigenous Health and Global Health priorities.

Indigenous health

Menzies strongly supports the NHMRC principles behind health research involving Indigenous Australians (ie both Indigenous and non-Indigenous researchers). Menzies also supports continuing the priority given to building the capacity of Aboriginal and Torres Strait Islander researchers, and to the framework to be provided by the various Roadmaps. Menzies also strongly supports continuing a minimum allocation to Aboriginal and Torres Strait Islander health research.

However Menzies has been of the view that there is sometimes a gap between these NHMRC-endorsed principles and their implementation.

Some specific changes that could be considered include:

1. The selection criteria and levels of appointment for fellowships, and assessment criteria for research grant funding should be more closely aligned to the NHMRC priorities and principles for Indigenous health research. For example the emphasis in selection criteria on international standing of researchers and publication in high impact international journals is inappropriate for research that by definition is focused on a national Australian issue and is of primary relevance for Australian policy makers and practitioners. *Research conduct* should indeed be at an international standard, but *international standing* is another matter. An emphasis in the selection criteria should be shifted to reflect success with research in the Australian Indigenous context, research that has made a real difference to policy and practice and to outcomes for Australian Indigenous people, and research that is successful in building capacity in the Indigenous health sector. As it is, selection criteria and lower levels of appointment discourage and are a disincentive for specialisation in Indigenous health research. A pertinent example is Menzies' Professor Ross Baillie, who had been unsuccessful in his NHMRC Fellowship application because of his lack of an international track record – who then won a prestigious Australian Research Council Future Fellowship.

2. There should be more appropriate representation of people with expertise in Indigenous health research on fellowship, scholarship and grant assessment panels. There needs to be a greater diversity of such people on the panels, given that the current Conflict of Interest rules mean that the people most in a position to judge the merits of candidates in Indigenous health are all too often outside the room during the discussion, because researchers in Indigenous health so often collaborate with each other.

3. More consideration should be given to development of Indigenous researchers. There is a large gap in capacity to enable students to reach the point where they are qualified researchers. In particular, we have noticed that there is usually little difficulty in Indigenous students who are PhD-ready getting a scholarship, so creating more PhD scholarships is not the solution. Instead the real roadblock is to get people to the point where they are capable of, and ready for, taking on a PhD in the first place. Moreover, successful research in Indigenous health requires Indigenous researchers at all levels, not just in the usual NHMRC career path that begins with a PhD. We need people in Aboriginal communities and in service organisations, as well as in academia, who have knowledge and understanding of research. We also need to encourage Indigenous researchers to achieve qualifications at Honours and Masters level. The scholarships for research training for students who do not normally qualify for Australian postgraduate awards, including Aboriginal and Torres Strait Islander people, go some way towards addressing the problem. Other possibilities for consideration are:

- Support for research-related capacity building at the community level. Menzies, for example, has embedded accredited VET level training for community workers hired to assist with research projects.
- Recognising that many Indigenous researchers (although this is also relevant to many non Indigenous researchers) are often mid career, and have high levels of family commitments, resulting in a major financial impediment to their participation. Increased pay scales and other forms of flexibility are required.
- Indigenous researchers are often lacking in specific writing skills and need more support to write papers and improve the quality of grant submissions. Options such as a dedicated program to accelerate Indigenous researchers, or one year seed funds for indigenous researchers to develop a grant application could be considered.

4. NHMRC should recognise that Indigenous research is a specialised, and costly, area. Menzies now has considerable experience and understands that to do it well, an institution needs to foster a welcoming environment, have mentoring programs, other organisational structures such as Indigenous Advisory/Reference groups, and networks, strong links to communities for project development, negotiation and consultation and feedback, and clear processes for Indigenous community feedback, input and participation. Building institutional and individual capacity is neither easy nor cheap. Timetables become extended and costs are high, particularly in remote settings. This is not always understood by the NHMRC, and can result in carefully thought-out budgets being cut by grant assessors who don't necessarily understand the implications

Northern Australian Health

Efforts to date to bring about collaborative approaches to research across Australia's north have been fragmented and largely ineffective, although there are good examples of individual projects that work very well across jurisdictional borders (for example in rheumatic heart disease, scabies, and primary health care services research). With significant commitment and funding from jurisdictions and from the Commonwealth Government, there is an opportunity to create a Centre of Excellence in Australia's north.

Funding the full costs of research

It is acknowledged by the NHMRC that their grants do not cover the full costs of research, with the expectation that medical research institutes fund the indirect (and some of the direct) costs of research from other sources.

This is a challenge for most institutes involved in medical research, but a particularly difficult one for smaller, regional institutes such as the Menzies School of Health Research. Our unique circumstances include our location within the NT - a very small (pop. approx. 230,000) and not particularly wealthy jurisdiction with therefore a very limited funding base. The NT Government, while providing an annual grant, does not provide the same level of support that the more engaged states of NSW, Vic and Qld for example.

Some specific changes that could be considered are:

- Move towards funding the full costs of research.
- Provide Commonwealth Government support and advocacy to jurisdictions such as the NT, on the benefits of jurisdictions investing more in health research.
- There are NHMRC grant schemes which require the leverage of government funding which the NHMRC then co-contributes to. Additional programs could be created which instead actively encourage co-investment (e.g. by providing matching funds) from the private sector (trusts, foundations, and individual and corporate philanthropy).

People Support Schemes

It is increasingly difficult for research institutions to fund ongoing salaried positions, and most Project Grants cannot fund the full cost of the projects' senior researchers. So there is an increasing dependence on People Support Schemes to underpin a vibrant Australian health research sector.

Menzies supports increases to the flexibility of Fellowships schemes, for example to assist researchers with family commitments; and also supports scholarships for research training for students who do not normally qualify for Australian postgraduate awards, including Aboriginal and Torres Strait Islander people.

However as a general rule the current schemes do not support researchers who do not fit the standard career path. Two important examples are researchers in Indigenous health and Indigenous researchers who for example may not have a PhD (addressed in the above section), and postdocs who won't necessarily aim to be research leaders and hence are not likely to ever hold Career Development Awards. These postdocs are tied to unreliable and insecure project funding, which is a genuine disincentive to remain in the sector. Yet without postdocs no research projects would be possible, and they are as essential to the maintenance of a stable research sector as the acknowledged leaders. We support the creation of a separate category of award for post doctoral researchers who are not necessarily on the career path of becoming independent research leaders.

Women researchers

An important category of researchers who do not necessarily fit the standard career path, are women. Women make up the majority of the research workforce (75% of Menzies' staff are women) but not necessarily the majority of senior researchers and professors nationally.

Women with career interruptions due to childbirth need particular additional and flexible forms of support. A formal policy on women researchers is required, which should be based on a review of

why women leave the sector and what the barriers are, and on best practice for supporting women researchers internationally.

There has been work done elsewhere on specific changes that could be considered, which will not be duplicated here, but in summary:

- Grant score and track record adjustments for every grant or fellowship submitted by a researcher who has had a career interruption due to childbirth in the last five years.
- Flexibility eg in project grant duration and deadlines, fulltime/part time requirements, and the way fellowship support is used for researchers with career interruptions due to childbirth.
- Provide new programs specifically for women with career interruptions due to children (some of these ideas could also be considered for other targeted categories of researchers who do not necessarily fit the standard career path as discussed above), such as:
    - 're-entry' or 'retention' fellowships
    - Mentorship and support for senior women researchers
    - Travel funds that provide funding for children and a children's carer to travel with the grant recipient.

Global health

In the past Australian funding for international medical research has fallen between the cracks of two different organisations. The funding priorities of the NHMRC (the primary source of funds for medical health research in Australia) have tended to be Australian; and AusAID (the primary Australian source of funds for international development work) has been reluctant to fund research.

Although the situation has improved in the last few years, our understanding of the health problems of our region and strategies to address these is poor. With the exception of PNG's Institute of Medical Research, there is very little health research in the Asia Pacific region supported by Australian donors. Most of the research undertaken in Indonesia is supported by the USA or European countries**.**

Some specific changes that could be considered include:

- Public health and medical research need to be a central remit of Australia's foreign policy goals and activities in the countries of our region and elsewhere. This will require medical research to be core component of the mainstream policy, planning and funding arrangements of the Department of Foreign Affairs and Trade and other relevant Government departments.
- AusAID must continue their systems to fund regional research. Opportunities for grant funding through current NHMRC channels may prove to be an efficient mechanism of dispersing a proportion of these resources.
- Global health should be maintained as a long term strategic priority in the NHMRC funding strategy.
- It is critical that NHMRC Project Grant be made available for funding salary and infrastructure support of developing country research partners
- The NHMRC must make a clear statement that NHMRC welcomes and supports international research collaborations in our region, and research priorities should include those of developing countries in the region. This will help to reduce the current resistance of grant review panels to funding offshore work in developing countries,
- The provision of Australian core funding should be made available for research centres in the Asia-Pacific including partnerships between Australian academic institutions and Asia-Pacific partner organisations. Such an approach has been used successfully by The UK's MRC (which funds MRC research centres in Africa), The Wellcome Trust (which provides core support to their Major Overseas Research Centers in Thailand and Vietnam) and the US NIH ICIDRs (International Centers for Infectious Diseases Research).
- Establish co-funded collaborative grants schemes for international research with international funding bodies such as The Gates Foundation, AusAID, The Wellcome Trust and USAID.
- Establish institutional funding partnerships to enable more capacity building and governance activities of health research institutions in the Asia Pacific. This will ensure that these institutions are sustainable and independent.

How can we optimise translation of health and medical research into better health and wellbeing?

The selection criteria for some NHMRC programs as currently framed recognise more or less only the standard measures of research productivity, (competitive grant funding, awards/recognition of leaders, other indices of research excellence) which may have little to do with collaboration between research and service delivery, or with rewarding translational research. The selection criteria on 'research translation' tend to be ill defined, and as are how they will be measured and assessed. The danger is that otherwise the more familiar and easily-measured criteria will predominate.

NHMRC should resist the temptation to focus its research translation efforts (eg through Advanced Health Research Centres etc) through only the major hospitals and institutions in major cities – in other words rewarding the status quo, based on traditional metrics. There are particular challenges for Indigenous Health and for Northern Australia, both of which have special issues and complexities – ie a small, geographically dispersed and largely Indigenous population - that need to be addressed locally. Some funding programs require tailoring specifically to these needs. The importance of moving medical and other health professional training into community settings needs to be recognised. It would be particularly useful to focus research translation efforts on regional centres and/or widely dispersed areas of operation, which have particular difficulties in operating and possibly do not have long histories of working together. This would mean recognising that an AHRC, for example, is not necessarily a physical centre, but could be region-based and not campus based. Collaborating partners would extend beyond traditional hospital institutions to smaller, widely dispersed service delivery organisations that have the greatest need for building their clinical practice based on rigorous evidence.

It is well documented that successful research translation requires the active participation of research users. In remote and Indigenous settings this means collaborating with communities in dispersed, remote and sometimes difficult settings with time frames that do not easily fit with normal funding cycles. Funding such projects requires more and more flexible funding than in traditional hospital or urban settings.