
Queensland Children's Medical Research Institute

Executive Summary

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?

- Health and medical research (H&MR) conducted in Australia has extended and improved the quality of life, reduced the burden of many diseases in our community and provided the means to deliver better health care more efficiently.
- There are significant economic benefits to a thriving H&MR sector, not least of which being that a focus on public and preventative health provides the best chance of limiting future budget expansion.
- There are certain diseases that are relatively unique to Australia, are disproportionately over-represented in the total population or affect specific groups within Australia, which demand "local solutions to local problems". In addition, Australia's unique geography and climate mean that international "solutions" may not be applicable to our population.
- We need to be capable of responding promptly to global and regional public health emergencies and we have a role as a good global citizen to contribute to combating major communicable and non-communicable diseases that are of international importance.

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

- A number of inequitable policies and eligibility criteria exist within the H&MR funding environment. We support the removal of any policy that discriminates against researchers because of their employing organisation and we would like to see researchers working in clinical environments encouraged.
- Governments should fund the full cost of research, including funding the indirect costs at the level of at least \$0.60 for every \$1 of funding. Indirect funding should be attached to the grant.
- The value of People Support grants needs to be increased to at least the equivalent of University salary rates and include oncosts, and there should be a career pathway through the People Support Schemes.
- The Peer Review system needs to be overhauled.
- There needs to be a simplification and unification of processes and systems by the NHMRC and ARC.

What are the health and medical research strategic directions and priorities and how might we meet them?

- We would advocate a balance between targeted calls for research (demand side) by government to address major diseases and researcher initiated funding schemes (supply side). The funding available for demand side should be proportionate to the burden of disease.
- Government needs to do more to foster and incentivise philanthropy. Tax incentives and leveraging schemes (like ARC linkage which provides leverage for Industry funding) could be used to achieve this.

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

- Provide dedicated funding streams to encourage translation.
- Include the translation of research as a driver for block grant/secondary gain funding. By this we mean not just the obtaining of patents, but translation into improved health outcomes.
- Recognise and measure researchers working in commercial research through different metrics than publications and competitive grants.
- Rewards should be provided to encourage research into efficient, less invasive and effective treatments.

Queensland Children's Medical Research Institute's
submission to the
Strategic Review of Health and Medical Research

About QCMRI

The Queensland Children's Medical Research Institute (QCMRI) is a child and adolescent health focussed research Institute consisting of approximately 180 researchers, research higher degree students and support staff. The QCMRI receives significant support from its partner organisations, namely the Children's Hospital Foundation Queensland (formerly Royal Children's Hospital Foundation) and Queensland Health's Children's Health Service, and has a close association with the University of Queensland.

The Institute has research strengths in the areas of respiratory medicine, infectious diseases, burns and trauma, cerebral palsy and rehabilitation, oncology, diabetes and online health with researchers working in the fields of basic biomedical science, clinical and population health research.

We welcome the opportunity to contribute to the Strategic Review of Health and Medical research in Australia which we feel is a valuable and timely process. We have responded to the four questions posed by the Review Panel.

Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector? (Terms of Reference 1 and 6)

- Australian health and medical research expenditure between 1992-93 and 2004-5 is estimated by Access Economics to have returned a net benefit of roughly \$29.5 billion. For each dollar invested in health and medical research it is estimated there is on average \$2.17 returned in health benefits.
- Health and medical research conducted in Australia has extended and improved the quality of life, reduced the burden of many diseases in our community and provided means to deliver better health care more efficiently.
- Given the ever increasing health budget an active health and medical research sector with a focus on public and preventative health provides the best chance of limiting future budget expansion.
- The health and medical research sector makes a significant contribution to the Australian economy through: improving the overall health of the population, including helping to ensure a healthy workforce; reducing the burden on the health system by developing novel prevention strategies, treatments and delivery of healthcare; generating revenue by developing new therapeutic agents and technologies; and by employing tens of thousands of people.
- The health and medical research sector diversifies the Australian economy and reduces the dependency on primary production for wealth creation and GDP growth.
- There are certain diseases that are relatively unique to Australia (eg. melioidosis, Hendra virus or bat lyssavirus diseases) or are disproportionately over-represented in the total population (eg. skin cancers) or affect some groups within Australia (eg. Indigenous health), which demand "local solutions to local problems". In addition, Australia's unique geography and climate mean that international "solutions" may not be applicable to our population.
- Australia needs a vibrant health and medical research community capable of responding promptly to global and regional public health emergencies, such as pandemic influenza or the emergence of new

- infectious agents such as SARS, Nipah and Hendra viruses or multi-drug resistant established pathogens, eg TB and MRSA.
- In its role as a good global citizen, Australian health and medical research is expected to contribute to combating major communicable and non-communicable diseases that are of international importance.
 - An internationally competitive health and medical research sector will help attract the best and brightest scientists and clinicians to Australia, while helping to retain local talent.
 - Better outcomes are achieved in healthcare settings conducting research because of closer attention to protocols, delivery of better care in a clinical trial setting, and access to the latest technologies and therapeutics by healthcare providers who are among the most talented in their profession.

How might health and medical research be best managed and funded in Australia? (Terms of Reference 2,3 7)

- The existing funding schemes are in need of major revision. The principal changes suggested include:-
 - Removal of eligibility criteria that discriminates against where the applicants are employed
 - Specifically acknowledge, encourage and reward multi- and interdisciplinary research aimed at tackling major health problems.
 - Federal funding agencies must fund the full cost of research they are supporting, including indirect costs generally estimated to be \$0.60 per \$1 of grant funding.
 - This indirect cost funding should be attached to the grant and flow to the administering organisation, with details of the indirect cost funding to be included in the grant award letter for transparency.
 - The salary rates for People Support grants need to be made current and reflect, at a minimum, the equivalent salary including oncosts (~30%) of University employed researchers. The current NHMRC people support grants fall well short of these rates.
- We support funding being made available across the broad-spectrum of health and medical research, including basic biomedical and “blue-sky” research, as well as clinical, population and health services research.
- A new system should provide for funding researcher’s salaries and project costs on a 5 year renewal basis. Thus providing greater employment certainty and allowing researchers to dedicate more time on research rather than administrative matters. This will also have the added benefit of providing a clearer and more attractive career path to prospective researchers.
- The People Support schemes need to provide a career pathway, enabling researchers to be reappointed (subject to satisfactory performance) and apply for promotion to the next category of Fellowship. There are currently very limited opportunities to progress from Early Career to Mid Career, with success rates for Career Development Fellowships very, very low.
- The ARC and NHMRC need to work together, streamlining processes, policies and sharing grant management systems (RGMS and RMS).
- The relationship between universities, independent research institutes and hospitals needs to be more accurately defined to provide a workable framework for the parties involved. Clinicians opting to follow a research career pathway need to be encouraged (rather than discouraged) to conduct research with suitable provisions made in their clinical service contracts.

- The current peer-review process is inherently flawed resulting in a lottery of funded and unfunded research. The most successful collaborators and senior researchers often have their applications reviewed by non-expert reviewers because of perceived conflicts of interest. The current conflict of interest guidelines are too restrictive and need to be revised.

What are the health and medical research strategic directions and priorities and how might we meet them? (Terms of Reference 5, 12 and 13)

- There is an opportunity for Governments to provide greater incentives for philanthropy. At present there is a perception that philanthropic funds are viewed by Government as a way of reducing their obligation. The Government must do more to encourage a culture of philanthropy towards the health and medical research, which could be achieved through additional tax incentives or through funding schemes which provide leveraging for philanthropic money, similar to the way ARC Linkage seeks to encourage Industry. Specific tax incentives could include 200% tax deduction for dollars spent directly on research.
- A balance between targeted calls for research (demand side) and researcher initiated funding schemes (supply side) is supported. Whilst recognising the importance of establishing research priorities and incentives, the vital role of researcher initiated studies and innovation cannot be over-emphasized. For demand side research, the amount of funding available should take into consideration the burden of disease to the Australian health system. Many of the major non-communicable diseases have origins in childhood and we would thus support investment in child and adolescent health schemes designed to prevent or reduce the impact of obesity, cardiovascular Disease, chronic respiratory disorders, including asthma, mental Health, and type 2 diabetes. (Direct cost of obesity was \$8.3 Billion in 2008, direct cost of cardiovascular disease \$5.9 Billion in 2008, direct cost of chronic respiratory disorders (including asthma) was \$2.5 Billion in 2000/01, loss of productivity from Mental Health \$5.9 Billion in 2009, direct cost of type 2 diabetes \$636 million in 2000).

How can we optimise translation of health and medical research into better health and wellbeing? (Terms of Reference 4, 8, 9, 10 and 11)

- Dedicated funding streams need to be provided to encourage research translation, in the broadest sense. The traditional measures of research productivity, which are rewarded through infrastructure/block grant funding (publications, research income, research student supervision) do not sufficiently reward translation, where metrics are more focussed upon obtaining patents than improved health outcomes. Some thought needs to go into measuring the health and community benefits of translational research, while bearing in mind the relative burden of measurement and reporting imposed upon individual researchers.
- Relationships with researchers and policy/decision makers are essential as is local coordination between research, teaching and service delivery.
- Currently penalties exist for researchers who work in commercial research, as researcher outputs are measured by publications and grant success. Equivalent recognition for patents, discoveries,

translation, improvements in patient care, treatments that result in savings to the health budget etc is required in grant assessment and infrastructure funding distribution.

- Rewards should be provided to encourage research into efficient, less invasive and effective treatments.

References

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