

Submission from ACT Health Directorate Research Office to the Independent Review of Health and Medical Research in Australia - McKeon review

A call for submissions to the Independent Review of Health and Medical Research in Australia was made by Simon McKeon on 7th February 2012. The McKeon review asks for written submissions to the following questions:

- 1. What are the health and medical research strategic directions and priorities and how might we meet them?**
- 2. How might health and medical research be best managed and funded in Australia?**
- 3. What are the health and medical research strategic directions and priorities and how might we meet them?**
- 4. How can we optimise translation of health and medical research into better health and wellbeing?**

1. Health and Medical Research (HMR) is important to mitigate our nation's future projected and unexpected health and economic challenges. ACT government is committed to HMR and the research conducted by its' staff, while varied, aligns with that of the Federal Government. A submission from the Australian Society for Medical Research has indicated that

- Health and ageing expenditure: currently >1/4 of total Federal Government spend increasing to almost half of total spend by 2049-50¹.
- Health and aged care expenditure escalating from 9.3% of gross domestic product (GDP) in 2003 to 12.4% of GDP in 2033².
- Health system expenditure to grow from \$113 billion in 2012 to \$3.3 trillion by 2062³.
- Between 1993-2005, every dollar invested in HMR returns on average \$2.17 in health benefits⁴.
- Ongoing wellbeing savings attributed to the prevention and treatment for peptic ulcers and bipolar disorder, as well as reducing deaths from Sudden Infant Death Syndrome (SIDS) to one fifth of former levels⁵.

In the ACT medical research is funded by a combination of private practice funds, commonwealth and local government grants as well as more recently monies raised through public support.

Since 2003 Private Practice fund support of research has increased from \$288K to a projected value of \$1.2M in 2012¹³. Funded research includes but is not limited to neonatal care, renal disease, cancer, cardiology, diabetes and immunological diseases.

Other funding, excluding that received from successful grant applications administered through university affiliations, has fluctuated between \$1.2M and \$3.7M over the past 9 years with approximately \$3.6M projected for 2011-12¹⁴. Again these monies are used to support a wide variety of medical research and clinical trials.

2. There is a need to identify health and economic returns on all sources of investment through data management. This approach should lead to more effective translation of research outcomes.

- Health research and development (R&D) is performed by higher education facilities (44%), business (26%), PNP (16%) and Government facilities (14%)⁴.

- In 2004-05, Australia spent \$2.8 billion (0.38% of GDP) on health R&D, ranking our nation in the middle of comparable OECD countries⁸.
- In 2011-2012, NHMRC investment represented 0.8% of Australian health expenditure (\$113 billion)³.
- Investment in the NHMRC between 2000-2010 is projected to save \$966 million in direct/indirect costs to the health system⁹.

Stimulating industry to further invest in HMR should be a major goal for Government to achieve sustained and appropriate funding of the HMR sector.

- A major source of Australian HMR funding (≈26%) comes from the commercial sector⁴.
- Since 1970, the commercialised benefits of NHMRC R&D are \$6.1 billion⁴.
- The projected commercial returns from NHMRC R&D between 2000-2010 are \$1.45 billion for cardiovascular disease and cancer⁹.

As suggested by the ASMR recommendations above, in the ACT there is a real need to increase investment in HMR by the private sector and Federal Government.

3. Australia's economic burden associated with health and ageing is projected to increase to unsustainable levels of almost half of the total Federal Government expenditure by 2050¹.

• Dementia is a significant health problem in Australia, with associated health expenditure projected to outstrip that of any other health condition by the 2060s. Delaying the onset of dementia by 5 years through Australian HMR will result in estimated savings of \$67.5 billion by 2040⁴. Only a small proportion of ACT research funding was allocated to dementia research compared to that given over to Diabetes research projects which has totalled \$445K during the reporting period.

• Diabetes is Australia's largest growing chronic disease and its incidence is projected to increase by 436% in the period 2003-2033². Prevention or delay of vision loss associated with diabetes alone will save \$7.6 billion by 2025⁴.

Increased injection of Federal Government funds into the novel "blue sky" thinking in basic HMR, which vitally underpins preventative and translational research.

Investment in NHMRC over the period 2000-2010 is not only projected to save \$966 million in direct and indirect costs to the health system but also has projected gains of \$6 billion linked to increased well-being⁹.

• Projected increased investment in NHMRC over the coming decade, to reach \$6.1 billion in 2022 has extrapolated health expenditure savings of \$25.9 billion over the next 50 years³.

Retain the best and brightest individuals from secondary schools and undergraduate courses into a HMR research career path that fosters long term support for both biomedical and clinical researchers in team building environments.

• More than 6000 individuals in Australian HMR, aged >40 years in 2009, are expected to leave the workforce during 2009-2019¹⁰.

• In 2008, a survey of the Australian HMR workforce 379 individuals revealed that most researchers (73%) had considered leaving active research, as a result of shortage of funding (91%), lack of career development opportunities (78%) and poor financial rewards (72%)¹¹.

4. Improve clinician researcher career paths, promote alliances between institutions, integrate academic/research/clinical centres and introduce more effective science research education to clinicians, and clinical education to scientists. Integration strategies have proven health and economic outcomes:

Integrating prevention and acute health care services through Australian HMR, led to an 87% reduction in hospital readmissions for cardiac-related events, with substantial savings to the health care system.

Linking Australian HMR together, through database management (eResearch), would be an ambitious but world-first exercise in monitoring and continually improving our nation's HMR output. This approach should lead to more effective translation of research outcomes, as well as enhance the potential for new discoveries.

Advancements in information technology have enabled data management of NHMRC expenditure to be mined for its projected health and economic benefits⁹, as well as extrapolating returns on future increased investment³.

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