

# SCHOOL OF PUBLIC HEALTH & PREVENTIVE MEDICINE

**The thrust of this review is “how to optimise the future environment for health and medical research in this country in a fiscally sustainable manner” in the context of ageing and mental illness now being the leading causes of morbidity and mortality.**

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

**TOR 1. The need: Medical research addresses every aspect of health in the community ranging from prevention (environmental health, community health, disease prevention) through to diagnosis and treatment. It is hence an essential investment to maintain a healthy country.**

Medical research is an important industry that provides employment and brings economic gain (Deloitte Access Economics, Extrapolated returns on investment in NHMRC medical research, Australian Society for Medical Research, 17 February 2012). Substantial investment in medical research is needed to ensure that Australia maintains a skilled internationally competitive workforce.

The international rankings of universities will increasingly determine which universities are eligible to train international students and which are likely to attract research contracts. The higher education market is current a major earner for Australia, but would be compromised if Australia’s research output declined. Medical research is an important component of national research activity.

**TOR 2-5. Expenditure/opportunities for capitalisation**

New models of expenditure need to be considered to encourage co-investment by industry and philanthropy, including more attractive tax concessions for investment in health related research. Consideration of how contractual rights relating to revenue sharing might be accrued in the course of funded research. eg. UK Wellcome Trust model

Likely future developments in health and medical research, both in Australia and internationally. Many of the looming priority area of health research will depend on ‘applied’ researchers, but the country is under resourced in terms of individuals with methodological skills in clinical study design, data-collection, data-management and data-analysis. There is a need for capacity building in fields such as epidemiology, biostatistics and data-banks (registries)

**TOR 6. Strategies to attract, develop and retain a skilled research workforce which is capable of meeting future challenges and opportunities.** A future wave of “brain drain” threatens: The present NHMRC system of people support cuts off a substantial number of early career researchers at a critical time in their careers - the slope of the pyramid increases at this time. We can only attract/develop and retain if we offer young early career researchers an achievable career path.

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

**TOR 7. Examine the institutional arrangements and governance of the health and medical research sector, including strategies to enhance community and consumer participation. This will include comparison of the NHMRC to relevant international jurisdictions.**

Medical research is considered largely the province of the NHMRC, regardless of how closely aligned to the strategic needs of the healthcare system. Health related data are trapped in ‘silos’ and inaccessible to researchers (Medicare, PBS and electoral roll data). This leads to a strong case for applied research to be within the jurisdiction of health authorities and the development of a flourishing applied research sector should be made a direct responsibility of Health ministers.

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

**TOR12. The degree of alignment between Australia's health and medical research activities and the determinants of good health, the nation's burden of disease profile and national health priorities, in particular "closing the gap" between indigenous and non indigenous Australians.**

Consultation with clinical bodies (such as Colleges and Societies) for the setting of health research funding priorities.

However generically the emerging priorities are:

### **1. Data accumulation:**

Challenge: ability to develop and analyse large healthcare databases

NEEDS: capacity building

### **2. The pace of innovation in healthcare is accelerating, leading to new drugs, new devices and new diagnostic approaches.**

Challenge: Ability to measure of the cost effectiveness of new treatments and technologies; prioritisation of access to care; comparative efficacy studies designed to establish the superiority (or lack thereof) of new innovations over established approaches; translational research to position innovations in clinical practice; ongoing monitoring of the safety of innovations and their cost-effectiveness

NEEDS: capacity building (health economists, clinical researchers); removal of barriers to conduct of research and access to data (with appropriate protection for privacy)

### **3. Prevention**

NEEDS: improved data resources to inform policy; capacity building as above

### **4. Quality of Healthcare:**

Challenge: to monitor impact of treatment strategies on health outcomes

NEEDS: clinical quality registries and various indices based on routinely collected administrative data. Epidemiology, biostatistics and clinical and health services research play a key role in the development of improved methods of measuring quality.

### **5. Risk Management:**

Challenge: New legislation and adverse legal findings are leading to increased safety monitoring and risk assessment of new drugs, devices and new clinical procedures.

NEEDS: the establishment of registries, cohort studies, data linkage and case-control studies.

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

Development of a formal funding stream for health translation that includes

1. **Continuation of schemes** such as Practitioner and Translating Research into Practice Fellowships
2. **Timely production and review of clinical practice guidelines.** (Practice guidelines are now produced at random by a range of organisations such as specialist Colleges and Societies)
3. **Enhancement of adoption of practice guidelines by clinicians.** Clinical registries which systematically collect information on treatments and their outcomes from hospitals across Australia provide an opportunity to monitor and encourage the uptake of guideline-approved treatments. The Australian Commission for Safety and Quality in Healthcare is developing a proposal for establishment of a program of key registries in Australia. If developed, this scheme will play a key role in promoting this form of translation.

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4. **The production and systematic updating of a health knowledge base for the community** would substantially assist translation of research outcomes (knowledge) and improve the delivery of health services