

Australian Medical Research and Innovation Five Year Strategy

Title: Sax Institute submission to the Medical Research Innovation Five Year Strategy

Submitted by: Sax Institute

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The Sax Institute welcomes the opportunity to make a submission to the Medical Research Future Fund (MRFF) consultation for the development of the Australian Medical Research and Innovation Strategy.

As an organisation that assists policy agencies and service providers to use research evidence and expertise, the Sax Institute endorses the stated intention of the MRFF to support the sustainability of the health system and drive medical innovation through health and medical research. We understand that it is intended to provide a sustainable source of funding for medical research over the medium to longer term that will complement existing medical research and innovation funding through bodies such as the NHMRC and Biomedical Translation Fund. This will provide a welcome additional injection of funds into Australia's already competitive health and medical research sector, enabling Australia both to maintain its leading position internationally, and to accelerate the translation of our excellent research into improved health outcomes and a wider range of social and economic benefits for all Australians.

Achieving the best outcomes will require research investment across the full spectrum of health and medical research ranging from basic science to applied health services research. Whilst basic biomedical research is essential to the discovery of new treatments in the mid to longer-term, we focus our attention on the more applied end of this spectrum with a focus on boosting the efficiency and effectiveness of the health system and on disease prevention at the population level. Both are essential if the MRFF is to achieve its stated aims of addressing the major burden of disease on the Australian community, and deliver practical benefits from medical research and medical innovation to as many Australians as possible.

We comment on three of the aims for the funding outlined in the call for submissions as follows:

To improve delivery of health care and to boost the efficiency and effectiveness of the health system

At the end of 2015, Australia's Chief Scientist outlined priorities for research including:

Better models of health care and services that improve outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide greater value for a given expenditure.⁽¹⁾

Australia has some of the world's highest quality and best value hospitals and primary care services. However, health expenditure accounted for 9.7% of GDP in 2013/14. Delivering more effective and cost-efficient health policies, programs and service delivery models will require continuing health services innovation research and testing, and more systematic, high-quality evaluation of existing services and service models.

The Sax Institute recommends that the MRFF prioritise research that can shape the future of health services in Australia, and have a significant impact on the efficiency and effectiveness of the health system. This could include research that:

- **Makes best use of and continues to improve Australia’s excellent health data to understand opportunities to improve the efficiency and effectiveness of health service delivery:** Australia leads the world in the linkage and analysis of population health data; this provides an opportunity to really understand key drivers in the health system and to improve care and efficiencies. Government is increasingly interested in using these data for research to inform its work; indeed the Senate Select Committee on Health recently published its finding on big data noting that:

A recent estimate by Lateral Economics suggests that Australian government held health-specific data alone could contribute up to \$5.9 billion per annum across the economy. Data linking is the bringing together of two or more de-identified datasets to create a new, richer dataset. Using data linkage techniques, researchers, clinicians and government administrators can deepen their understandings of the ways people use the healthcare system while maintaining patient privacy. This has the potential to inform government policy making and decisions about improving health service delivery.(2)

The MRFF could prioritise research using these data; this would fast track the delivery: of better information to inform the government’s policy decisions; better understanding of what works, how well, for what cost, and in what circumstances; a more efficient health system, the most cost-effective treatments, strategies and interventions.

- **Evaluates policies and programs or tests strategies for large scale implementation of programs, policies or services that are known to work.** Internationally and across Australia there is recognition of research that tests policies, programs and service delivery models. The NSW Government Evaluation Framework, for example, says evaluation is a key tool to support evidence based policy and decision making in government, to help government learn and adapt to changing environments and as a tool for communicating and sharing valuable information (3). Australia already has the building blocks in place (including, internationally recognised leaders in this kind of research, linked and cohort data) and active engagement by government. Investment by the MRFF would catalyse internationally leading research that can set the foundations for future health system development, and add value to policy and service decisions in Australia.
- **Engages health care providers and policy makers to work in partnership with researchers.** There has been international interest in coproduction or partnership research as a mechanism for accelerating T3 and T4 translation; by working together in the design, implementation and interpretation of the research, the likelihood that research will be used are increased. The UK CLAHRC model provides one example of how this might be done and support for the development of the next generation of clinician researchers would also be very valuable. Recent evaluations have begun to show that co-production resulted in successful knowledge translation (4). If the MRFF is to improve the efficiency and effectiveness of the health system, funding models that support co-production should be used.

To contribute to economic growth

Our economic growth will be critically dependent upon ‘healthy ageing’, ensuring that older Australians are able to live independently and engage productively in society and the economy. The Intergenerational Report (5) identifies the need to retain older people in the workforce noting that the number of people aged between 15 and 64 for every person aged 65 and over having fallen from 7.3 people in 1974-75 to an estimated 4.5 people today. By 2054-55, this is projected to nearly halve again to 2.7 people. To sustain its economic growth, Australia needs to identify ways to encourage older Australians to keep participating in the workforce and community for longer, and be more active and engaged during retirement years.

The Sax Institute recommends that the MRFF prioritise research to understand how to remain healthy and active in older age. This will mean funding research that:

- **Recognises the complex interaction of many factors in determining chronic disease:** Many of the determinants of chronic disease lie outside of the health system in our communities, our food systems, our environments and work places. Australia has some established leaders in this kind of research and some unique problems, especially in remote areas, in our Indigenous population and as a migrant country. Research that takes a systems approach to identifying and developing strategies to address chronic disease and to improve health has real potential to contribute to economic growth by ensuring a healthy older workforce.
- **Draws on Australia's excellent large cohort studies.** Australia has many well established and large cohorts. Established cohorts are the best mechanism for understanding the trajectories of ageing and the factors that result in healthy ageing and continued productivity. Investment by the MRFF in research that uses these cohorts would provide the best value approach to understanding how to ensure a healthy older workforce and therefore drive economic growth.

References

1. Commonwealth of Australia. Science and Research Priorities: Health capability statement. Canberra: 2015 November. Report No.: 15-53004f.
2. Commonwealth of Australia. Senate Select Committee on Health: Big health data: Australia's big potential. Canberra 2016.
3. NSW Government. NSW Government Evaluation Framework. Sydney: 2013 August. Report No.: DCC1305.
4. Heaton J, Day J, Britten N. Collaborative research and the co-production of knowledge for practice: an illustrative case study. *Implementation Science*. 2016;11(1):1.
5. Commonwealth of Australia. 2015 Intergenerational Report: Australia in 2055. Canberra 2015.