Australian Medical Research and Innovation Strategy and the Related Medical Research and Innovation Priorities
University of Melbourne response

Australian Medical Research Advisory Board

October 2021
Response to consultation questions

Strategy
The MRFF Act specifies that AMRAB must determine a Strategy for ensuring that a coherent and consistent approach is adopted in providing financial assistance for medical research and medical innovation. With that in mind:

1. Could the current Strategy be altered to better meet the purpose set out in the MRFF Act? If so, how so?

The current strategy should be altered to provide greater coordination between the MRFF and NHMRC and therefore a consistent approach to supporting fundamental medical research and translational priorities. To fulfil the MRFF vision of “a health system fully informed by quality health and medical research” the NHMRC and MRFF would benefit from a more co-ordinated medical research strategy that covers the spectrum of the research pipeline from discovery to implementation research and also promotes innovation and commercialisation. Whilst the current strategy does acknowledge the importance of the research pipeline across the entire continuum, the mechanisms to achieve this would benefit from greater consideration. For example:

- In 2020 MRFF funded NHMRC investigator grants for clinician researchers but not basic scientists, public health or health services researchers;
- In 2021 MRFF clinician researcher grants excluded those without a current clinical appointment resulting in full-time medical, allied health and nursing researchers, health economists and implementation scientists being excluded.

A greater focus on interdisciplinary research, with an understanding of the breadth of researchers needed (including, but not exclusive to, basic science, clinical science, biostatistics, data science, health economics, data systems and management) would enable the MRFF to meet its stated purpose of improving health outcomes.

2. What are the most critical current and future issues and factors impacting on the health system, including primary prevention, and on the health and medical research sector that the next Strategy needs to address?

While Australia’s health care system was already under pressure, the pandemic has exposed challenges that need to be addressed by research. Key issues for the next Strategy include:

- Addressing system inefficiencies relating to the linkage of health records and the recruitment of participants to trials.
- An increased focus on primary prevention, which has been under-funded relative to the potential health gains.
- Supporting strong collaborations between Universities, institutes and all health care settings to ensure the most important research questions are being addressed (including underpinning discovery research), translated into practice and commercialised. Embedding researchers in the health system is one key collaboration mechanism.
- Greater coordination of health research funding to ensure research is being funded across the sector and is funding both research projects and supporting research careers.
• Application processes and timelines that impact the efficient use of researcher and clinician time.

3. **Suggest options for how the next Strategy could address these critical issues and factors?**

Options for the addressing these issues through the next Strategy include:
• developing a more co-ordinated strategy between NHMRC and MRFF.
• increased investment in research capability and capacity.
• ensuring that funding supports the entire research pipeline, including pre-clinical, phase I-IV trials, and implementation research.
• ensuring funding for researchers across the career spectrum.
• improved data on funding outcomes related to gender and diversity.
• establishing transparent processes to identify research priorities with stakeholders including consumers, researchers and industry.
• increased focus on primary prevention.
• ensuring that funding supports the entire research pipeline, including pre-clinical, phase I-IV trials, and implementation research.
• prioritising digital solutions that are scalable.
• establishing large scale grants that are appropriately funded to address major, system-level priorities.
• establishing clearer pathways for researchers to be embedded within the healthcare system, with academic leadership from Universities/Research Institutes.
• ensuring funding for researchers across the career spectrum.
• optimising efficiencies with funding rounds, e.g. one MRFF/NHMRC investigator grant scheme.
• reducing duplication of grant applications, for example by introducing a single grant round for fellowships and a single grant round for multidisciplinary team-based projects.

4. **Given the new and significant impact of COVID-19 on health services and health research, how should the new Strategy address COVID-19 related topics and impacts?**

The pandemic has demonstrated the importance of medical research to our community and highlighted the benefits of collaboration across disciplines and settings to tackle COVID-19. Grant funding from the MRFF rapidly enabled COVID-19 research, highlighting the importance of flexible funding available to respond to future health challenges/priorities. The increased demand on the health services in response to COVID-19 has reduced the capacity of clinicians to conduct research. However, there has also been an increased need for clinicians to
understand the rapidly developing evidence base related to COVID-19. The strategy should support clinician researchers to adapt to health services needs with protected time, mentoring and infrastructure.

In addition, the strategy needs to support the pipeline of health researchers by supporting researchers who have had significant interruptions on their research, which will have long term impact on their career trajectory and outputs (particularly people with caregiving responsibilities) and also research projects that have had to be suspended. Over the next five years, specific funding should be allocated to complete pandemic-affected trials funded by the MRFF, along with fellowships to help researchers gain momentum if they had significant career disruptions from the pandemic.

Priorities
The MRFF Act specifies that AMRAB must determine Priorities for providing financial assistance for medical research and medical innovation. The Priorities must be consistent with the Strategy that is in force. In determining the Priorities, the AMRAB must take into account the following:

- the burden of disease on the Australian community;
- how to deliver practical benefits from medical research and medical innovation to as many Australians as possible;
- how to ensure that financial assistance provided under this Act provides the greatest value for all Australians;
- how to ensure that financial assistance provided under this Act complements and enhances other financial assistance provided for medical research and medical innovation;
- any other relevant matter.

With that in mind:

1. Could the current Priorities be improved to better address the requirements under the MRFF Act? If so, how so? This could include consideration of what elements of the Priorities work well to guide MRFF investments and what could be improved for research translation and impact?

While supporting current priorities, we contend that the alignment between priorities and funding could be enhanced. Funding should be distributed to match priorities and the relative burden of disease, and to support the building of a broader spectrum of researcher capacity. MRFF should acknowledge that research is led not only by clinicians but also by biostatisticians, health economists, data scientists, and implementation scientists amongst many disciplines. There are substantial benefits in a sustained and co-ordinated future capability investment strategy including both MRFF and NHMRC for this to occur with focus on early and mid-career researchers.

The digital health intelligence priority has the potential to improve health system efficiencies, and increased funding is needed in this area to improve health systems research. Fellowships
should target a range of researchers including clinicians but also experts in artificial intelligence and data science.

We support greater engagement of consumers in research, recognising the mismatch in priorities of consumers and researchers in some cases. Mechanisms that enhance consumer engagement and partnership in research are needed. MRFF should provide guidelines for inclusion and funding of consumers to ensure a sustainable system of engagement from co-design of interventions to translation of outcomes.

2. **What are the most critical current and future issues for the health system and the health and medical research sector that the next Priorities need to address through research translation/implementation?**

Preventative interventions:
The role of preventative interventions should be given great priority. In the current strategy prevention is included with public health interventions but warrants a greater funding allocation given the potential to improve community health and reduce healthcare costs.

Multidisciplinary research:
Multidisciplinary teams are needed to address current and future health priorities most effectively. MRFF should identify specific needs for increased clinical researcher and translator researcher capacities and prioritise their funding and embedding within the health system.

Diversity and inclusion:
Supporting diversity and inclusion across the health and medical research sector is essential to strengthening our research capacity. We support the prioritisation of Aboriginal and Torres Strait Islander Health and would encourage fellowships for First Nation researchers. At present in the NHMRC system there is gender inequity in research funding, with females having lower success rates than males. It is important that the MRFF set gender equity related targets, and that it publishes relevant data.

Translational research:
The next Priorities should emphasise the need for additional support for translational research infrastructure to build capability in clinical trials and other applied research.

3. **Suggest options for how the next Priorities could address these critical issues?**

Options for addressing these issues through the next Priorities include:

- ensuring funding is distributed according to the identified research priorities and the burden of disease to deliver benefits to as many Australians as possible.
- investing in digital platforms to enhance efficiency in clinical trials and health services research
- prioritising investment in building research capacity across the health care system.
- encouraging collaboration between health services, universities and medical research institutes by providing substantial funding for multidisciplinary teams.
- supporting diversity and inclusion with funding for researchers who have had career disruptions due to COVID and working in clinical/industry settings.
• providing specific funding for research led by Aboriginal and Torres Strait Islanders and/or increases research capacity of First Nations people.

4. Given the new and significant impact of COVID-19 on health services and health research, how should the new priorities address COVID-19 related topics?

COVID-19 will remain a major health priority and MRFF should anticipate the future needs for research that will likely focus on optimising vaccination strategies, management of acute and chronic disease, and anticipating public health responses to vaccine-resistant variants. The impact of COVID-19 on current research priorities should be examined to determine whether these priorities were effectively addressed in the current period or whether they were delayed due to the pandemic. The use of digital health technologies has become increasing apparent during the pandemic when face to face interactions have been decreased. Efficiencies in health service delivery, such as Telehealth, warrant further investment in digital technology research.

Any additional comments? If no, please type 'N/A'

Time to plan for applications is often limited due to short turnaround times between opening of grant schemes and submission. While we recognise the need for the research system to respond to emerging health crises, the administrative burden associated with the application process is currently not aligned with timeframes. Longer lead times will facilitate funding of more carefully planned research with optimal collaborative partnerships.

At present, investigators can only be on one submission per round. This limits collaboration, particularly when there are limited experts in an area. We propose that investigators can submit two applications per round to foster large multidisciplinary research teams, whilst still supporting opportunities for early and mid-career researchers.

Funding Agreement: In the past standard IP clauses that have been included in Funding Agreements for MRFF funded activity have had the potential to have a negative effect on generating impact through research commercialisation via collaboration between the research sector and industry. This principle is fundamentally at odds with the desired outcome of the fund. Further alignment of MRFF IP clauses with ARC and NHMRC funding agreements which complement the desired outcomes of MRFF is suggested.