

Submission to the Department of Health

# **MRFF Australian Medical Research and Innovation Strategy and Priorities consultation**

11 October 2021



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# MRFF AUSTRALIAN MEDICAL RESEARCH AND INNOVATION STRATEGY AND PRIORITIES CONSULTATION

The Australian Academy of Technology and Engineering (ATSE)<sup>1</sup> welcomes the opportunity to provide feedback to the Australian Medical Research Advisory Board (AMRAB) for the consultation into the current Australian Medical Research and Innovation Strategy and its related Priorities.

The COVID-19 pandemic has had wide-ranging direct and indirect implications for society and for the health and medical sector. ATSE recommends that AMRAB seize this opportunity for developing a new Strategy and Priorities to invest in significant innovation in areas where it can deliver the best value for improving the health of Australians. ATSE recommends that the Medical Research Future Fund (MRFF)'s outcome and impact evaluations are transparent and fit-for-purpose, with a continuing focus on monitoring and evaluation as a priority for the whole Fund.

In particular, ATSE recommends:

- The addition of **Climate Change Impacts** as a Strategic Horizons priority

The impacts of climate change on health and health systems are becoming increasingly prevalent and are growing in urgency, making the health impacts of climate change a strong candidate to become a dedicated priority. This will support improved understanding and monitoring of the health impacts of climate change, and proactive approaches to improving the health system's capacity to adapt to and mitigate its impacts on Australia's population health and health system.

- The addition of **Future Health Services** as a Health Services and Systems priority

Digital transformation represents the biggest change to our society and economy since WWII. Digital transformation is being driven by consumer demand: ATSE recommends that the MRFF take a proactive approach to this transformation, to avoid retrofitting health services and systems to meet the demand. To enable Australia to take full advantage of the potential benefits of the transition, an overarching digital strategy is required for Australia (such as that outlined in ATSE's [recent publication](#)). Disruption caused by COVID-19 could be an opportunity to catalyse transformation of Australia's health system design, and information and communication technology use.

- The addition of **Resilience** as a Health Services and Systems priority

COVID-19 has exposed and exaggerated weaknesses in health services and systems, from staffing and skills to supply chains. ATSE recommends investigating how resilience can be improved across the service spectrum, from how health care delivery personnel can be supported and protected to ensure resilient and sustainable service provision, to how health systems, tools and infrastructure can be designed to be agile in response to changing inputs and demands.

- The addition of **Women's Health** as a Strategic Horizons priority

Women have been chronically under-studied throughout history and around the world, creating a strong potential market globally with pharmaceutical and medical technology targeted to their particular health needs. Australia has the opportunity to lead on this globally and reap the economic and public health benefits.

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<sup>1</sup> The Australian Academy of Technology and Engineering is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

- A shift in focus to **Drug Design, Innovation and Repurposing** as a Trials and Translation priority

New drug design, and Australian capability to generate and test novel active drug ingredients, is just as important as drug repurposing. This will continue to build Australian domestic capacity and sovereign capability, improving resilience in supply chains and health outcomes.

- An emphasis on **Aboriginal and Torres Strait Islander Health** as a priority

The handling and outcomes of the COVID-19 pandemic for Aboriginal and Torres Strait Islander peoples showed both the strengths of Aboriginal Community Controlled Health Services and the limitations of general health services. This, along with recent promising results on the narrowing of the gap in burden of disease between Indigenous and non-Indigenous people,<sup>2</sup> suggests that continued focus will realise equitable results. ATSE reinforces that continued investment, driven through Aboriginal and Torres Strait Islander governance, is required that focuses on Indigenous leadership, agency and community empowerment, the promotion of health equity, elimination of discrimination and the strengthening of Indigenous research capacity.

- An emphasis on **Global Health and Health Security** as a priority

The lessons from the past two years, including the catastrophic bushfires and the ongoing pandemic, should be evaluated and used to prepare Australia to meet the challenges of the next natural disaster, or pandemic and syndemic (a term which includes the biological and social interactions of health crises).

- An emphasis on and broadening of the **Public Health Interventions** as a priority

ATSE recommends a stronger focus on preventive health, which should also include active and passive immunisation, which applies not just to infections like COVID-19 but to other infections and cancer.

- An emphasis on and broadening the **Translational Research Infrastructure** priority

Domestic manufacturing capability continues to present a major challenge for innovation, translation and commercialisation of local biomedical and medical technology. Integrating the MRFF more closely with the Modern Manufacturing Initiative would support growth in sovereign capability and boost commercialisation potential. ATSE also recommends further consideration of how the MRFF can leverage Australia's existing strengths, such as diagnostics and therapeutics (theranostics), to build domestic capability and global markets.

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<sup>2</sup> <https://www.aihw.gov.au/reports/burden-of-disease/australian-bod-study-2018-key-findings-indigenous/contents/about>

## Summary of ATSE Recommendations

Priorities		Status
<b>Strategic and international horizons</b>		
One Health – Antimicrobial resistance		Retain
Global Health and Health Security		Emphasise
Aboriginal and Torres Strait Islander Health		Emphasise
Aged and Aged Care		Retain
Climate Change Impacts		Addition
Women's Health		Addition
<b>Data and Infrastructure</b>		
Digital Health Intelligence		Retain
<b>Health Services and Systems</b>		
Comparative Effectiveness Research		Retain
Primary Care Research		Retain
Future Health Services		Addition
Resilience		Addition
<b>Capacity and Collaboration</b>		
Clinical Researcher Capacity		Retain
Consumer-Driven Research		Retain
<b>Trials and Translation</b>		
Drug Design, Innovation and Repurposing		Broaden
Public Health Interventions		Emphasise
<b>Commercialisation</b>		
Translational Research Infrastructure		Emphasise

ATSE commends our report on technology readiness, [A New Prescription](#), which analyses and provides pathways for a digitally-supported shift in focus towards prevention and wellness, particularly supported by rapid expansion of electronic health records; improved access through telemedicine and remote technology; retraining and upskilling the healthcare workforce; and targeted translation and commercialisation of research to deliver better patient outcomes.

ATSE welcomes the opportunity to provide further input, clarification, or advice on this matter, drawing on our extensive network of leaders from industry, academia, the public sector and research institutes.

For further information, please contact the ATSE Policy Team ([AcademyPolicyTeam@atse.org.au](mailto:AcademyPolicyTeam@atse.org.au)).