



Australian Academy
of Health and
Medical Sciences

Statement from the Australian Academy of Health and Medical Sciences ahead of the 2022 Federal Election

Cultivating a world-leading health and medical research sector and a world-class health system to protect the health of Australians against future pandemics, climate change and beyond.

Since the pandemic began, health and medical research has been in the global spotlight. In Australia, the path through the pandemic has been heavily reliant on our world-class health and medical research sector, which has provided timely, reliable and effective solutions.

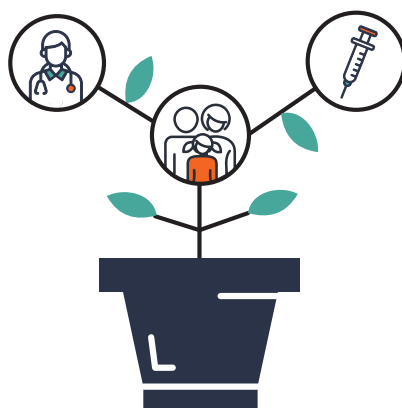
These solutions did not just appear overnight. Past government investment has paid dividends. COVID-19 provides an example of how smart, strategic investment in health and medical research and innovation can provide the foundations to navigate Australia through significant health challenges.

While the efforts of our health and medical research community have been crucial, the pandemic has also exposed a number of key gaps across that sector that have prevented—and will continue to prevent—Australia from leading the world in research and innovation.

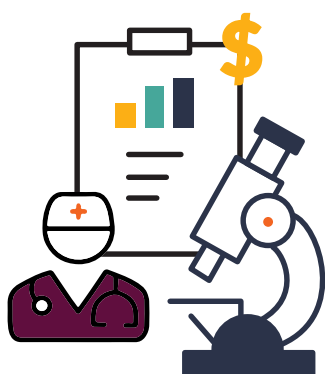
Unprecedented health challenges like climate change, chronic disease, an ageing population, and future pandemics threaten to bring poorer health outcomes, worsening health inequality and greater economic burden. Strategic investment to future-proof health and medical research and innovation and nurture a vibrant health and medical research community will be key to addressing these challenges.



As we move beyond the pandemic, the next Australian government has a unique opportunity to maximise the impact of health and medical research, and mitigate major health challenges by:



Embedding research and innovation in the health system



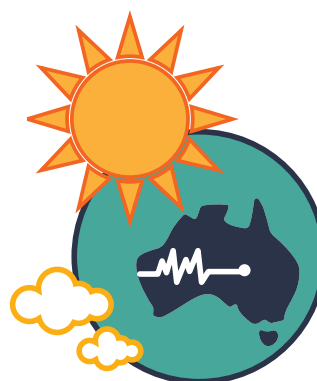
Investing strategically in health and medical research



Building cross-sector linkages and growing commercialisation capacity



Tackling health inequalities experienced by Aboriginal and Torres Strait Islander peoples

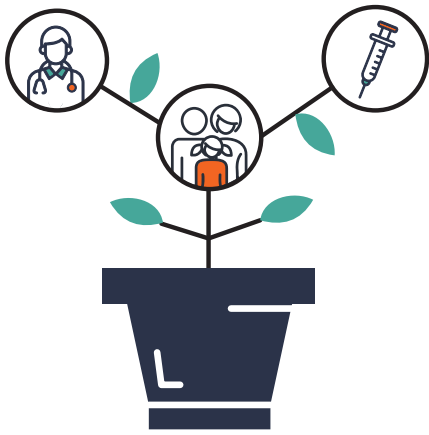


Protecting the health of Australians from climate change



Embed research and innovation in the health system

Advancing Australia's capacity to improve patient outcomes, reduce healthcare costs and drive economic growth by better embedding research and innovation in the health system.



Priority action

Deliver a national health and medical strategy to better embed research and innovation in the health system, and maximise the value of existing investments by:

- a) Developing and executing a plan to build a stronger clinician-scientist workforce through a more clearly defined and coordinated training pathway across Australia.
- b) Implementing greater strategic harmonisation of health and medical research funding, starting with the National Health and Medical Research Council (NHMRC) and the Medical Research Future Fund (MRFF) as the major funders.

Australia's health system delivers world-class care, but health system expenditure is rising inexorably¹. Health and medical research helps Australians—and the global population—live longer. Harnessing our strengths to better embed research in the health system can enable greater opportunities to improve patient outcomes, maximise efficiency and promote healthcare sustainability.

Australia has made progress towards facilitating the translation of research into the health system. Building on this foundation through the actions suggested above could:

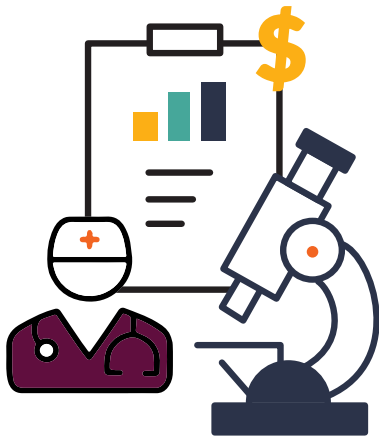
- Ensure the next generation of research leaders within the health system have the time and mobility to flourish in both clinical and research training
- Underpin a strong pipeline across discovery, translation and clinical research
- Set the platform for greater coordination and more transparent communication with the health and medical research sector to enable a system in which the sum is greater than the parts
- Enhance the quality of research to provide greater returns for the investment in health research, which flow into healthcare and health outcomes for better quality of life and longevity for Australians
- Ensure community expectations for health and medical research are being met.

The Academy is leading a project to further addresses this issue and will have more to say in our forthcoming report, '[Harnessing research for better health: A vision for integrating research into healthcare](#)'.

¹ AIHW. Health expenditure. <https://www.aihw.gov.au/reports/australias-health/health-expenditure>

Invest strategically in health and medical research

COVID-19 has highlighted the critical role of health and medical research in protecting the health of all Australians. From prevention, public health, discovery and translation, research and innovation require investment commensurate with the potential benefit to health, society and the economy.



Priority action

Increase funding to NHMRC beyond indexation over the next five years to offset the real terms decrease that NHMRC has seen to its funding since 2015/16 and to ensure that we are able to maintain our competitiveness globally.

This commitment should form part of a long-term research and innovation strategy that sets out how Australia will return gross expenditure on R&D (GERD) to a positive trajectory as a percentage of GDP, at a level competitive with other developed nations. We suggest a target of 3%.

Australia needs long-term, stable research and innovation funding commitments if we are to maximise the efficiency and impact of these endeavours. The NHMRC is the main funder of discovery health and medical research in Australia. Discovery and translational research are interdependent – progress in one depends on the other, and feedback between them is essential to an efficient and impactful system. For example, the development of the COVID-19 vaccine would not have been possible without decades of basic biomedical research in fields such as virology, immunology and biochemistry.

Funding for NHMRC has fallen since 2015/16. This is impacting researchers and the research they conduct, for instance grant success rates have fallen over this period, and over recent years, continue to hover around only 13%².

NHMRC is also the primary funder for early- and mid-career researchers (EMCRs) and has a crucial role to play in addressing gender disparities for women—both groups have been negatively impacted by the pandemic. To boost competitiveness globally and safeguard the future of health and medical research, Australia must invest adequately today.

A well-funded NHMRC could:

- Produce world-leading health and medical research that can translate to benefits for human health
- Address many of the existing disparities experienced by EMCRCs and women, leading to greater opportunities to grow the sector
- Safeguard and enhance research quality and integrity.



Alongside a well-funded NHMRC, Australia must amplify the productivity of the overarching research and innovation sector. At present, we are not keeping up with other developed nations.

Total average GERD among OECD countries in 2019/20 was 2.5% and this figure is rising, while Australia's commitment has stagnated and came in at 1.8% in the two most recent reporting periods (2017/18 and 2019/20)^{3,4}. Adequate funding is hugely important for attracting external investment and retaining talented researchers.

We know that research and innovation drive economic growth, create jobs and bring considerable societal and health benefits through the translation of research findings. Without this investment, Australia cannot be competitive on the global stage.

² NHMRC. Outcomes of funding rounds. <https://www.nhmrc.gov.au/funding/data-research/outcomes>

³ OECD Data. Gross domestic spending on R&D. 2020. <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>

⁴ ABS. Research and Experimental Development, Business, Australia 2021. [https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-businesses-australia/latest-release#:~:text=Gross%20expenditure%20on%20R%26D%20\(GERD\),-Gross%20expenditure%20on&text=In%202019%2D20%2C%20GERD%20for,over%20a%20two%20year%20period.](https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-businesses-australia/latest-release#:~:text=Gross%20expenditure%20on%20R%26D%20(GERD),-Gross%20expenditure%20on&text=In%202019%2D20%2C%20GERD%20for,over%20a%20two%20year%20period.)

Build cross-sector linkages and grow commercialisation capacity

Industry is a positive contributor to human health, economic growth, employment, innovation and international collaboration. At present, there is market failure at a national level, limiting Australia's ability to act independently and compete globally on matters of health and innovation.



Priority action

Foster an environment in which cross-sector linkages and industry can grow and flourish by:

- a) Facilitating a skilled and mobile workforce, growing a new generation of entrepreneurs and knowledge-brokers, and developing government policies that nurture industry and commercialisation.
- b) Identifying and addressing specific gaps, such as developing our sovereign capacity for pharmaceutical manufacturing.

COVID-19 has reinforced the importance of industry to health and medical research and innovation, and has exposed fundamental gaps preventing necessary progress for the sector. Many of our medicines and health-related products are imported, which leaves us vulnerable to supply chain disruptions. Sovereign capability for pharmaceutical manufacturing is a prime example of a significant gap that has impacted our ability to meet our own health needs.

Attracting, retaining and training talent, creating new companies, and establishing sovereign capability in drug discovery and medicinal chemistry would grow translation of our biomedical research into Australian domiciled intellectual property. This could provide a greater return, both medically and financially, for all Australians.

Small and medium enterprises (SMEs) are a big part of industry in Australia and act as a significant employer. Recent announcements to support commercialisation in universities are welcome, but a government agenda that supports SMEs can foster an Australian industry sector that is competitive on an international scale⁵. Some other key areas that will be necessary to holistically develop Australia's industry and build cross-sector linkages include:

- Evolving a culture that understands and values entrepreneurship, resilience to feedback, risk-taking and the critical importance of new drug development to our health care system
- Improving coordination of initiatives, funding and infrastructure
- Building interdisciplinary, cross-sector teams with the necessary skills to translate research, including knowledge brokers across health and medical research and innovation
- Identify and address gaps in capability and career support.

⁵ Australian Government. University Research Commercialisation Package. 2022. <https://www.dese.gov.au/university-research-commercialisation-package/resources/university-research-commercialisation-action-plan>



Tackle health inequalities experienced by Aboriginal and Torres Strait Islander peoples

Aboriginal and Torres Strait Islander peoples have the right to self-determination and Aboriginal and Torres Strait Islander-led solutions are key to closing the gap in health and wellbeing.



Priority action

Invest in community driven, co-designed, Aboriginal and Torres Strait Islander-led research, and ensure Aboriginal and Torres Strait Islander decision-making and self-determination capacity is embedded in the development of all policies relating to the health and wellbeing of these communities.

Historically, First Nations peoples have been excluded from the decision-making process on matters affecting their health. Today, Aboriginal and Torres Strait Islander peoples experience a greater burden of disease than non-Indigenous Australians⁶. Many of the health inequalities that stem from social, cultural, environmental and historic determinants can be mitigated with targeted and strategic investment.

Aboriginal and Torres Strait Islander peoples are best placed to develop and execute solutions to improve the health and wellbeing of their communities. Government investment to address health inequalities should prioritise self-determined and Aboriginal and Torres Strait Islander-led research, policies and programs that are equitable, transparent and responsive to the needs of these communities.

Timely and sustainable mitigation of Aboriginal and Torres Strait Islander health inequalities will also require a robust Aboriginal and Torres Strait Islander health and medical workforce, including research. This workforce should be nurtured and equipped to manage the cross-cutting issues associated with the current health gap. To achieve this, the Government should advance the 'National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021-2031'⁷.

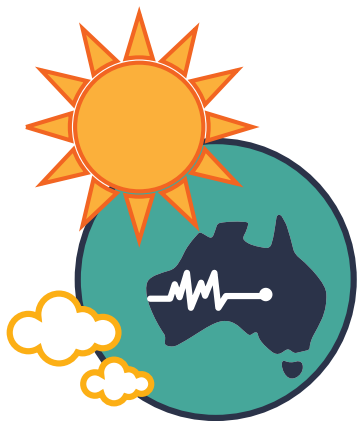
⁶ Lowitja Institute. Close the Gap. Transforming power: voices for generational change. <https://humanrights.gov.au/our-work/aboriginal-and-torres-strait-islander-social-justice/publications/close-gap-2022>

⁷ Australian Government. National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021-2031. <https://www.health.gov.au/resources/publications/national-aboriginal-and-torres-strait-islander-health-workforce-strategic-framework-and-implementation-plan-2021-2031>



Protect the health of Australians from the impacts of climate change

The health of the Australian community should be protected from the effects of climate change. If left unaddressed, climate change will cause significant damage to health, society and the economy more broadly.



Priority action

Recognise climate change as an urgent health challenge and ensure the health impacts of climate change are included in the development of climate-related policy and planning by:

- a) Supporting cross-sector, interdisciplinary solutions towards achieving net-zero emissions that have co-benefits for human health.
- b) Advancing strategic action by the Australian health sector to deliver a fully environmentally sustainable healthcare system by 2050, or earlier.

Climate change represents one of the greatest threats to human health and wellbeing in the 21st century. As global temperatures increase, Australia is likely to see a longer, more frequent, and more intense fire season. Models also forecast higher levels of extreme heat, continued sea level rise, heavier rainfall and floods, and more sand and dust storms—all of which have major diverse health implications that will increasingly affect our communities. Examples of these health-related challenges include:

- Heat stress and heat stroke caused by increasing temperatures
- Respiratory conditions and burns from a more frequent and intense bushfire season
- Shifting patterns of insect-borne infections resulting from heavier rainfall, temperature increases and river floods
- Mental health challenges linked to changing and uncertain environments.

We are already seeing many of these impacts today.

The health and medical research sector and the health sector more broadly can play an important role in investigating and addressing these health impacts and ongoing government support is crucial. In addition, the Australian Government must ensure that climate-related policies towards net-zero safeguard the health, employment and economic stability for all Australians.

The Academy published a [statement on climate change and health](#) in April 2022.



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