

2024-25 PRE-BUDGET SUBMISSION

December 2023

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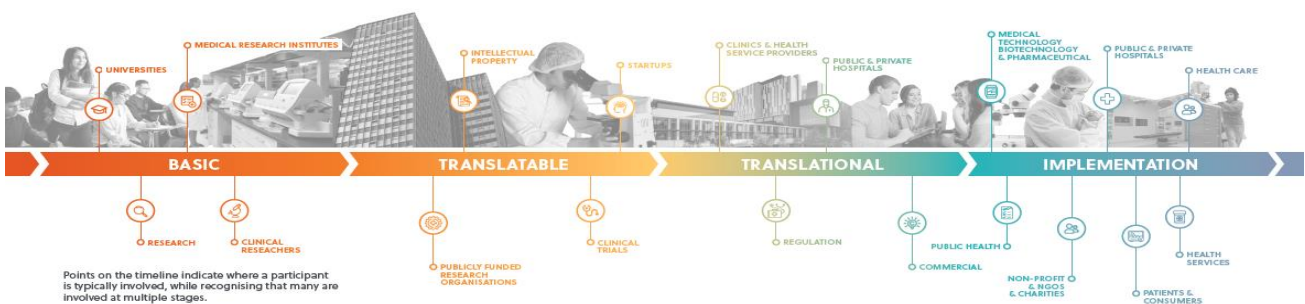
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Summary of recommendations

Invest in Health and Medical Research and other R&D	The Government should commit to increased spending on R&D to at least 0.75% of GDP annually over the forward estimates. This should be accompanied by a plan for increased R&D investment across the economy, including by industry.	Page 9
	The Government should increase funding for discovery science through the NHMRC and ARC, better fund the indirect costs of research, and offer more funding for research infrastructure. The increases should be guided by the final recommendations of the Universities Accord Panel. This recommendation reiterates Research Australia's position outlined in our Pre-Budget submissions since 2016.	Page 9
	The Government should increase the amount of funding made available from the MRFF (\$650m) to better align with the Future Fund Board of Guardian's determinations (\$973m).	Page 10
	Research Australia submits the Government should amend the MRFF Act to change the MRFF's investments and distributions, as proposed in the Investment Funds Legislation Amendment Bill 2021.	Page 10
Research Infrastructure	The Government should use its Advisory Group's recommendations to commit new funding to NCRIS beyond the funding already allocated in the Budget forward estimates of at least a further \$100 million per annum. The Advisory Group's recommendations will enable this additional investment to be made effectively, in a manner which supports valuable research infrastructure and the expected recommendations of the Universities Accord Expert Panel.	Page 11
Use Government Procurement	The Government should develop an Australian equivalent of the US Government's Biomedical Advanced Research and Development Authority (BARDA) with the objective of supporting the development and domestic manufacture of new medical products needed to protect the health of the Australian population. This recommendation reiterates Research Australia's position outlined in our Pre-Budget submissions since 2021.	Page 13
Centre for Disease Control supporting research and innovation	The Government should consider an expanded role for the Australian Centre for Disease Control in supporting the alignment of Australian research and innovation with unmet health needs. In the event of a health emergency, such as the recent COVID pandemic, the Australian CDC should have the capacity to direct	Page 14

	emergency funding provided by the Australian Government from outside normal funding streams.	
Workforce	<p>The Government must invest in a health medical research and innovation workforce plan that:</p> <ul style="list-style-type: none"> • defines the workforce the country needs and wants for research, innovation and commercialisation • supports a highly skilled and sustainable research workforce with circular mobility between academia and industry • ensures universities (and others) are equipped to train the next generation of researchers • retains Australian researchers and attracts the world’s best talent. <p>This recommendation reiterates Research Australia’s position outlined in our Pre-Budget submissions since 2022.</p>	Page 15
Measuring innovation	The Government should act on the Innovation Metrics Review; and restore funding to the Australian Bureau of Statistics to improve the capture and analysis of data relating to R&D in Australia as first steps to developing a proper framework for measuring the impact of Australian research and innovation.	Page 15
	The Government should monitor the demand for new programs (Australia’s Economic Accelerator, Start Up Year, the Industry Growth Program) and increase the level of funding where warranted.	Page 15
National Strategy for HMR	<p>A National Health and Medical Research Strategy must:</p> <ul style="list-style-type: none"> • facilitate coordinated, sustainable investment in research; • strengthen the connection between research and healthcare; and • support emerging innovative health industries. <p>This recommendation reiterates Research Australia’s position outlined in our Pre-Budget submissions since 2022.</p>	Page 16

The Health and Medical Research and Innovation pipeline



Introduction

Research Australia is pleased to have the opportunity to make this pre-Budget submission ahead of the May 2024 Budget.

Research Australia congratulates the Australian Government on the progress it has made in 2023. Establishment of the National Reconstruction Fund, the Industry Growth Fund and action on the interim recommendations of the University Accord reflect the breadth of the Government's policy reforms. For 2024, the Government's agenda includes the Australian Centre for Disease Control, reforms to better coordinate the Medical Research Future Fund and the Medical Research Endowment Account, a response to the final report on the University Accord and decisions on new funding for the National Collaborative Research Infrastructure Scheme. The Government will also receive the Productivity Commission's report on doubling philanthropy, and reports on improving Health Technology Assessment and the Privacy Act.

All these measures are consistent with the Government's focus on increasing productivity, evident in the historic Statement of Expectations provided by the Treasurer to the Productivity Commission in November 2023. This submission seeks to outline the critical role health and medical research can play in increasing national productivity, with a role in addressing all the major forces, trends and transitions identified in the Statement:

- Technological and digital transformation
- Climate change and the net zero transformation
- Population ageing
- Rising demand for care and support services
- Global shifts such as geopolitical risk and fragmentation¹

The benefits of technological and digital transformation are nowhere more evident than in digitally and AI enabled healthcare, and Australia has world class research and innovation capabilities on this area. Climate change is driving the need for adaptation of our health systems and environment to protect human life. An ageing population is accompanied by increasing rates of chronic disease which are driving rising demand for care and support services; research can help reduce the incidence and burden of chronic disease and make our health system more effective and efficient. Geopolitical risk and fragmentation are driving increasing security concerns, in particular how to ensure greater self-reliance through the production of medicines and medical technologies. Australia's health and medical research an innovation sector can boost Australia's self-reliance in this critical area.

Australia's health and medical research and innovation sector can fulfil its potential as a cornerstone of a more productive and prosperous post-carbon Australian economy, but we must have the industrial capacity, the manufacturing sector, and the skills to make this happen.

While the Government is increasingly filling the gaps in Australia's pipeline for R&D, the level of investment in R&D by both Governments and the private sector is still well below the levels required to achieve the Government's ambitions for a prosperous and productive nation. The Government must back

¹ Australian Government, The Treasury, 2023, Statement of Expectations-Productivity Commission, November 2023

up its policy reforms with significantly increased investment in R&D throughout the pipeline, from discovery science to commercialisation.

The case for investing in health and medical research and innovation

With Australian healthcare expenditure in 2021-22 estimated to be \$241.3 billion, even relatively small efficiency improvements can have significant economic benefits, including to productivity.² For example, adverse events in hospital are events that lead to harm to patients. Approximately 5% of patients experience an adverse event, and these ‘can lead to increased length of stay and poorer patient outcomes, along with increased costs of treatment.’³

Research into better healthcare can lead to new interventions and models of care to reduce the incidence of adverse events, reducing the demand on hospital beds. More broadly, research can lead to shorter hospital stays and more complete recoveries and avoided hospitalisations through early detection and prevention.

With healthcare and the aged care sectors such large components of our economy, there is significant scope for health and medical research to significantly improve national productivity.

Case Study: Stelect

Stelect is a Melbourne based innovative medical device company creating technology that aims to take the guesswork out of many procedures by allowing clinicians access to areas in the human body that imaging has not been able to access before. For example, cardiac stents are placed in an artery using a catheter. Stents come in various sizes (both length and diameter) to suit patients of different artery sizes and different blockage lengths. There is currently guesswork in which size stent to use, and this can lead to several stents of different sizes being used to ensure the entire coronary blockage is covered and it is sitting correctly against the artery wall. Each catheter is a single use item, and is discarded after the procedure. Currently under development, Stelect is a small, high resolution ultrasound sensor that can reduce this waste by ensuring the stent is correctly fitted the first time. This reduces medical waste, saves money spent on multiple catheters and stents, and reduces the time for the procedure, which has savings for the health system and benefits for the patient.

Health and medical research an innovation can deliver improved productivity in three ways:

1. Improve the productivity of Australia’s health system
2. Improve the health of our population, extending healthy working lives and enabling people to age well for longer, with reduced demand on health and aged care services

² Australian Institute of Health and Welfare (2023) Health Expenditure Australia 2021-22. Canberra: AIHW

³ Australian Institute of Health and Welfare (2018) Australia’s health 2018. Australia’s health series no. 16. AUS 221. Canberra: AIHW. Chapter 7.9

3. Generate export income in the knowledge intensive and high wage medical products industry

The key to this is increased investment in R&D, by the Government and the private sector.

Current funding for research and innovation

The process from initial research discovery to a new drug, therapy or technology is a long one, often characterised as a pipeline; commencing upstream with research that leads to a new discovery and flowing downstream through various stages of testing, refinement and development to the realisation of a new product which can be manufactured and sold to a customer. (Alternatively, it might be a solution with a non-commercial product, such as a new model of care. The pipeline analogy remains.)

At the upstream end of the pipeline lies the Australian Government's investment in basic research, primarily through the National Health and Medical Research Council's (NHMRC) Medical Research Endowment Account and the Discovery Program of the Australian Research Council (ARC).

Downstream from this basic research there is a range of different programs and initiatives intended to support research and development at different stages. At the Commonwealth level the main programs include aspects of the ARC's Linkage program, some of the more translationally oriented NHMRC funding programs, the Medical Research Future Fund, the CRC Program and the Biomedical Translation Fund. More recently, the Trailblazer Universities Program and the Australia's Economic Accelerator Program have been added to the mix, and the Industry Growth Program has now been launched.

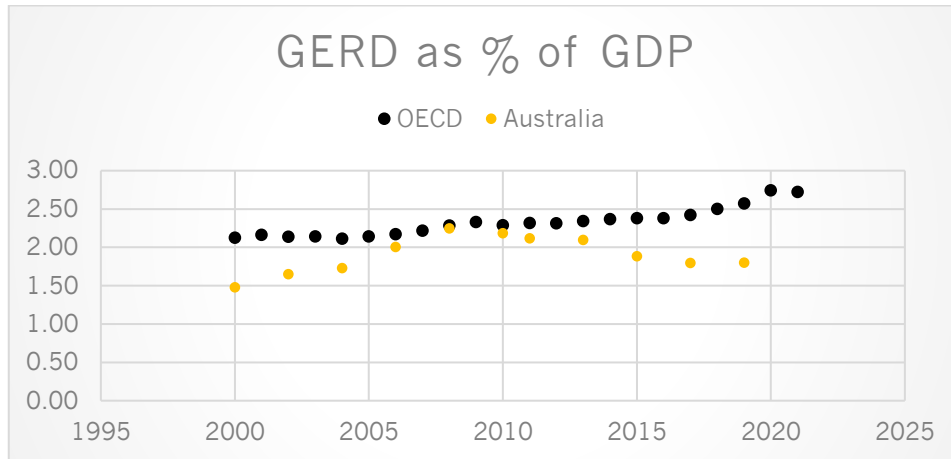
There are also programs in other portfolios with specific objectives- e.g. medical countermeasures (Defence) and health and medical research as foreign aid (Foreign Affairs). State and Territory governments are also funders of health and medical research and innovation.

While often characterised as a pipeline, the reality is a system that does not 'flow' smoothly from research discovery to new product, and more work is needed to 'systematise' what is currently a collection of individual programs. Funding and incentives are available for some stages, but the connections between these different stages are tenuous, or don't exist.

However, this is not the biggest barrier to the Government's ambition of boosting productivity; the real problem is scale. There is insufficient investment in R&D in Australia.

Underinvestment in R&D

Australia's Gross Expenditure on R&D (GERD) was 1.68% in 2021-22. By comparison, the average GERD across all OECD nations in 2021 was 2.718%. As the following graph shows, Australia has been falling further behind the OECD average since 2009.⁴



Investment in R&D by both the Government and private sector have contributed to this decline.

The Australian Government's expenditure on R&D has declined from 0.67% of GDP in 2011-12 to a forecast 0.49% in 2022-23.⁵

										Forecast		Average since 1978-79
2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
0.67	0.64	0.62	0.60	0.58	0.54	0.55	0.50	0.52	0.57	0.51	0.49	0.60

The OECD average for Government expenditure on R&D in 2021 was 0.65% of GDP.⁶

⁴ Source: OECD (2023), Gross domestic spending on R&D (indicator). doi: 10.1787/d8b068b4-en (Accessed on 28 November 2023)

⁵ Australian Government, Science, Research and Innovation (SRI) Budget Tables, 2022-23, Australian Government investment in R&D by sector and sub-sector, and other analyses Table 6, Australian Government investment in R&D as a percentage of Gross Domestic Product.

⁶ Australian Government, Science, Research and Innovation (SRI) Budget Tables, 2022-23, SRI Interactive Dashboard, page 9 of 11.

Business Expenditure on R&D (BERD) is another part of the problem. In 2018, the average BERD of OECD countries was 1.68%.⁷ This is consistently higher than in Australia. BERD in Australia in 2020-21 was 0.9% of GDP, and has been declining; it was 1.19% of GDP in 2013-14, and 1.23% in 2011-12.⁸

This decline in spending on R&D is not consistent with the Albanese Government's recognition of the need to increase local manufacturing and jobs and boost productivity, which requires a renewed and sustained focus on R&D by all sectors of the economy.

Addressing underinvestment in R&D

Research Australia submits the Government should outline a substantially increased investment in national innovation and commit to increasing its spending on research and development to at least 0.75% of GDP annually over the forward estimates.

We acknowledge that increasing Government expenditure on R&D is only part of the solution, but it is the component the Government can control directly. By investing Government R&D in areas that stimulate and incentivise private sector R&D, the Government can influence the rate of private sector R&D expenditure, and many existing programs are designed to do just this. While higher than the OECD average, it is still well below the Government investment in R&D of comparable countries such as We believe this call is the minimum increase that is consistent with the Government's ambition of increasing Australia's overall R&D spend to 3% of GDP.

A significant increase in Government expenditure on R&D needs to be made in a considered and strategic fashion. **The good news is the Government has already initiated a number of reviews and evaluations that can support this renewed investment and ensure it is effective.**

In the remainder of this submission, Research Australia provides proposals for how this additional investment should be utilised in health and medical research and innovation, and more broadly across Australia's world leading research and innovation.

Universities Accord

The Government responded to the Interim Report of the Universities Accord Expert Panel by addressing some urgent recommendations made in relation to teaching.

The Interim Report also made a number of recommendations relating to research. These include increasing funding to universities for research; moving over time to funding the full costs of research; a more stable and long term funding model for NCRIS; and measures to ensure governments and industry better utilise university research capability.

⁷ OECD, Main Science and Technology Indicators Volume 2020/21, Table 24, Business Enterprise Expenditure on R&D as a percentage of GDP

⁸ 8104.0 - Research and Experimental Development, Businesses, Australia, 2013-14

Research Australia strongly supported the Panel's interim recommendations and we look forward to the final report of the Universities Accord. We expect the final recommendations will provide the Government with considered and detailed recommendations on exactly how the Government can increase its investment in university led research.

Research Australia submits the Government should increase funding for discovery science through the NHMRC and ARC, better fund the indirect costs of research, and offer more funding for research infrastructure. The increases should be guided by the final recommendations of the Universities Accord Panel.

Better MREA and MRFF Coordination

The Albanese Government has initiated a review into how to better coordinate the research funding of the NHMRC's Medical Research Endowment Account and the Medical Research Future Fund.

This review, including revisiting the proposed legislative amendments to the MRFF's investment mandate to improve the returns available as research funding, provides the opportunity to improve the overall operations of the MRFF and MREA.

Research Australia submits the Government should amend the MRFF Act to change the MRFF's investments and distributions, as proposed in the Investment Funds Legislation Amendment Bill 2021.

Even without the proposed amendments to the MRFF's investment mandate, the MRFF's Future Fund Board of Guardians is already approving substantially more annual funding for research than is being disbursed by the Department.⁹

Research Australia submits the Government should increase the amount of funding made available from the MRFF to better align with the Future Fund Board of Guardian's determinations. Because MRFF grant expenditure is funded by earnings on the MRFF's capital, this does not require additional expenditure from consolidated revenue.

If there is a concern about the administrative capacity of the agencies to administer additional grants, the burden could be minimised by simply increasing the amount of funding offered under the existing funding opportunities. Research Australia would also support further funding for the functions Department of Health and Ageing's Office for Health and Medical Research and the NHMRC to allow for more capacity to administer a greater volume of grants. This is subject to the outcomes of the MRFF/MREA coordination review. With the number of high-quality applications for MRFF funding currently far exceeding the number of successful applications, there is plenty of scope to fund more high quality research through the existing MRFF initiatives.

The MRFF could also invest in more large scale and longer term research programs. The propensity for funding to be directed to short term projects can discourage researchers from seeking to make big new

⁹ The Future Fund Board of Guardians approved the release of \$870 million in grants in 2023/24 and \$973 million for 2024/25 (Determinations under section 34(1) of the MRFF Act, made on 25 October 2022 and 31 October 2023 respectively). The Department has plans to expend \$650 million in grants per annum in 2023/24 and over the forward estimates.

discoveries and drive longer term outcomes because the time and resources required to effectively implement and embed new knowledge is not funded. It also contributes to inefficiency in the sector (researchers spending their time writing grants instead of doing research) and contributes to the lack of career security in the sector.

Research Infrastructure

The National Collaborative Infrastructure Scheme (NCRIS) is administered by the Department of Education, funding cutting edge national research infrastructure.

NCRIS funding follows a cycle, with a review which leads to recommendations (the roadmap) and then an investment plan in which the Government commits to funding over the next five year period.

The last review was undertaken in 2021 and the Roadmap was released in early 2022. One of the recommendations of the Roadmap was the creation of an Advisory Group to assist the Government in responding to the roadmap's recommendations. The Advisory Group has been meeting in 2023, and a workplan has been released, outlining the process the Group and the Department are undertaking to evaluate the Roadmap's recommendations for new funding. This includes the following items relevant to health and medical research infrastructure:

- Research Infrastructure workforce
- National Digital Research Infrastructure
- Synthetic Biology
- Collections (includes Bio banks)

According to the workplan, recommendations will be made to the Government in early 2024, with the Government response due by June 2024 (the NCRIS Investment Plan), approximately 3 years after the Roadmap was developed.

In the October 2023 Budget, the Government outlined \$650 million in funding over four years to provide ongoing funding for existing NCRIS infrastructure. It appears the additional \$100 million in NCRIS funding for new infrastructure allocated in the 2023/24 Budget will now not be allocated until the 2024/25 financial year.

Research Australia submits the Government should use its Advisory Group's recommendations to commit new funding to NCRIS beyond the funding already allocated in the Budget forward estimates of at least a further \$100 million per annum. The Advisory Group's recommendations will enable this additional investment to be made effectively, in a manner which supports valuable research infrastructure and the expected recommendations of the Universities Accord Expert Panel.

A role for government procurement in promoting innovation

Research Australia welcomes the Government's recognition of the importance of its role as a purchaser of products and services and the capacity for better government procurement policy to support Australian businesses. What is perhaps not so well recognised is the scope for this policy to support innovation and the development of new products and services, further aligning with the Australian Government's goal to develop Australia's advanced manufacturing. By focusing on products the Australian Government wants

to purchase this approach differs from the National Reconstruction Fund which is focused on products that will find a market in the broader economy.

The Australia Government can better support Australian health innovation through its procurement processes.

The US Government's Biomedical Advanced Research and Development Authority (BARDA) provides a better model for how this could work in Australia for health and medical research. The closest analogue in Australia is in defence, with the Advanced Strategic Capabilities Accelerator.¹⁰

BARDA

The US Government's Biomedical Advanced Research and Development Authority (BARDA) was established to help secure the USA from chemical, biological, radiological, and nuclear (CBRN) threats, as well as from pandemic influenza (PI) and emerging infectious diseases (EID). BARDA supports the transition of medical countermeasures such as vaccines, drugs, and diagnostics from research through advanced development towards consideration for approval by the FDA and inclusion into the Strategic National Stockpile.¹¹

The focus is on products the US Government needs to protect its population, and BARDA provides financial and other support from later stage research through to manufacture of the product and the US Government acts as a cornerstone purchaser.

Medical products provide an opportunity for the Australian Government to use its role as customer to support Australian R&D and manufacturing, while also protecting Australia's population and ensuring supply of essential medical products, including in emergencies. The Government could support the development of products in areas where it thinks the product will be useful and it will be a potential purchaser- this includes pharmaceuticals, therapeutics and medical devices.¹²

The Australian Government already provides some of this support on an adhoc basis. An example is the 2020 agreement reached with CSL in which the Government supported the development of a new onshore biopharmaceutical manufacturing facility by engaging in an influenza pandemic preparedness contract and committing to purchase antivenoms and q-fever vaccine over ten years.

'Global biotechnology leader CSL Limited (ASX:CSL; USOTC:CSLLY) today announced that Seqirus, a wholly owned subsidiary of CSL, plans to invest more than AUD\$800 million in the construction of a new biotech manufacturing facility in Melbourne to supply influenza vaccines to Australia and the rest of the world.

This investment decision follows the agreement with the Australian Government for the supply over 10 years of influenza pandemic protection for the Australian population, anti-venoms for Australian snakes, spiders and marine creatures and Q-Fever vaccine.' 16 November 2020¹³

¹⁰ <https://www.asca.gov.au/>

¹¹ <https://www.phe.gov/about/barดา/Pages/default.aspx>

¹² <https://www.vaxxas.com/>

¹³ <https://wcsecure.weblink.com.au/pdf/CSL/02309014.pdf>

Innovation for better services in rural, regional and remote Australia

Point of Care diagnostics (POCDs) enable conditions to be diagnosed in the GP clinic without the need to send samples to an external laboratory. While centralised pathology laboratories work well in our capital cities, this model can mean patients in remote communities wait days to get vital results, and the cost of transporting samples is much greater.¹⁴

In addition to delaying the commencement of treatment, pathology lab testing requires follow up appointments to act on the results when received. All this can lead to additional workload for practitioners, poorer treatment and greater inconvenience for patients, and extra costs to the Australian Government.

Supporting the development and production of accurate and cost-effective POCDs could provide benefits to the Australian Government, the population and our medical products industry. POCDs could be a good target area for an Australian BARDA style program.

This is just one example of how such a program could be used to further the Government's objective of more equitable access to healthcare for disadvantaged communities. It could also support policy objectives in other areas, such as mitigating CO₂ emissions.

Identification of areas for innovation could come from multiple sources, including frontline health care providers, administrators and government departments, and the Australian Centre for Disease Control. Evaluation of areas to target with a call for innovation, with an initial assessment of feasibility and a Health Technology Assessment of the potential value could be undertaken within the Government or outsourced to suitably qualified health economists and experts outside the Government.

The program could draw on existing programs to support the required R&D. For example, the Australia's Research Accelerator Program could provide funding for proposals originating in universities, existing incubators and accelerators (e.g. Cureator)¹⁵ could support the development, and support for manufacturing could be provided through the National Reconstruction Fund. Eligibility rules for these programs could be amended to give priority to innovations that have been identified by the Government as targeting an identified need.

Research Australia submits the Government should develop an Australian equivalent of the US Government's Biomedical Advanced Research and Development Authority (BARDA) with the objective of supporting the development and domestic manufacture of new medical products needed to protect the health of the Australian population.

Partnering with the State and Territory Governments to identify areas where innovation is needed and where they could be the government purchaser of a suitable solution would further increase the reach of the program and its potential benefits. Securing the Commonwealth or a state or territory government as

¹⁴ <https://www1.racgp.org.au/newsgp/clinical/are-we-about-to-see-a-new-dawn-for-point-of-care-t>

¹⁵ Cureator is operated by Brandon Capital, funded by the MRFF <https://brandonbiocatalyst.com/cureator/>

a cornerstone purchaser of a product can support the development and manufacture of a product which is then able to secure further markets overseas.

A role for the Australian Centre for Disease Control in supporting innovation

The Australian Government is currently consulting on the development of an Australian Centre for Disease Control, with enabling legislation to be introduced in 2024. It is anticipated one of the Centre's first priorities will be to take responsibility for Australia's National Medical Stockpile.

While warehousing products in the National Medical Stockpile is one solution to supply chain risks, expanded domestic manufacturing is another approach which can further secure Australia's supplies, particularly in the face of an extended medical emergency, or when novel products are required. With its extensive data gathering and analysis capabilities and its responsibility for assessing and mediating the risks of future health emergencies, the CDC will be ideally placed to undertake the function of coordinating the application of research to the prevention and control of disease, both communicable and non-communicable. It would approach this task from the perspective of the population and the health system, looking for research in Australia and overseas that can be used to improve the response to various diseases, including diabetes, and providing funding and expertise to support implementation as new interventions.

An Australian CDC could play a role in identifying promising interventions (e.g. from clinical trials) with the potential to help address a disease and support the activities needed to help implement and test the intervention in a pilot program and its subsequent scaling up into routine care. Refer to the previous section on **A role for government procurement in promoting innovation** for detail on how this could work.

In other cases, the Australian CDC might identify and support research findings to progress to a clinical trial or support development of a new medical product. The CDC could also fund systematic reviews of local and international evidence in particular aspects of the control and prevention of disease, to evaluate evidence and identify new strategies/interventions which could be valuable in the Australian context. Where appropriate it could fund the further evaluation and adoption of the adopt through further trials demonstration projects and other activities to support adoption.

In the event of a health emergency, such as the recent COVID pandemic, the Australian CDC should have the capacity to direct and commission research to support Australia's response.

Research Australia submits the Government should consider an expanded role for the Australian Centre for Disease Control in supporting the alignment of Australian research and innovation with unmet health needs.

In the event of a health emergency, such as the recent COVID pandemic, the Australian CDC should have the capacity to direct emergency funding provided by the Australian Government from outside normal funding streams.

The right workforce

Just as important to our future success as research funding is the workforce. Research continues to evolve and as it does, so do the skills required of our research workforce. Understanding not just the skills and roles required today but those we will need in five and ten years' time (and beyond) is going to be critical to our future success in undertaking research, commercialising the outcomes and building the manufacturing industries that will enable us to capitalise on our discoveries. Health and medical research and innovation occurs in a range of settings (universities, medical research institutes, healthcare settings, industry) and requires a variety of different techniques and approaches. Like many areas of our economy, there are skills shortages in particular areas and oversupply in others.

Research Australia submits that the Government must invest in a health medical research and innovation workforce plan that:

- **defines the workforce the country needs and wants for research, innovation and commercialisation**
- **supports a highly skilled and sustainable research workforce with circular mobility between academia and industry**
- **ensures universities (and others) are equipped to train the next generation of researchers**
- **retains Australian researchers and attracts the world's best talent.**

Monitoring and Evaluation

Australia has a well-deserved reputation for research in many areas, including human health and medicine, and is increasingly building an effective framework for utilising this research, and capturing the economic benefits.

What we do not currently have is an effective methodology for monitoring and evaluating measures to support innovation, to enable us to understand what works and what doesn't.

Innovation, Industry and Science Australia expressed the problem recently in the following terms

'A precondition for developing successful policy that supports innovation is that we measure innovation well and report on it regularly as part of an ongoing national conversation. If the Australian Government does not focus on the right metrics for Australia, there is a significant risk that these metrics, that we rely on to inform policy, will result in suboptimal outcomes.'¹⁶

The Universities Accord Final Report will likely address this to some extent in terms of assessing the impact of university research, but we need to monitor and evaluate all Government initiatives to support activity on the whole research and innovation pipeline.

¹⁶ Industry Innovation and Science Australia, 2023, Barriers to collaboration and commercialisation, page 42.

Research Australia urges the Government to act on the Innovation Metrics Review;¹⁷ and restore funding to the Australian Bureau of Statistics to improve the capture and analysis of data relating to R&D in Australia as first steps to developing a proper framework for measuring the impact of Australian research and innovation.

Research Australia also proposes the Government monitor the demand for new programs (Australia's Economic Accelerator, Start Up Year, the Industry Growth Program) and increase the level of funding where warranted.

National Strategy for Health and Medical Research

Australia's investment in health and medical research must be targeted at areas of greatest health need and greatest economic opportunity. The complexity of Australia's funding landscape means some parts of research lack the funding they need, while other parts of research receive multiple funding streams.

With a strategic, national approach, Australia can realise the benefits of its significant investment in health and medical research. Discoveries can be more quickly implemented into better care and new innovations can be more quickly brought to market.

This requires a cross-portfolio and state and federal perspective, it is bigger than the NHMRC or any one funding body. This also requires joint investment from federal and state and territory governments, to foster seamless integration of research and healthcare.

Research Australia has led the call, alongside others, for a National Health and Medical Research Strategy and we welcome the Government's commitment to its development. The National Health and Medical Research Strategy represents an opportunity to develop clear national priorities in consultation with the research sector, communities, and industry.

The National Health and Medical Research Strategy must:

- **facilitate coordinated, sustainable investment in research;**
- **strengthen the connection between research and healthcare; and**
- **support emerging innovative health industries.**

¹⁷ <https://www.industry.gov.au/publications/innovation-metrics-review>

Conclusion

The 2024 Budget provides the opportunity for the Australian Government to consolidate the steps it has already taken to improve the health and wellbeing of the Australian population and to reposition Australia as a modern and innovative nation with a knowledge-based economy. Much of this is about utilising the various reviews and initiatives that are currently in development to significantly scale up the Government's investment in research and innovation.

Improving the health of the Australian population is central to improving national productivity. Australian health and medical research leads to new medicines, technologies and treatments that cure us when we are ill or injured. It plays a significant role in disease prevention through the development of vaccines, as well as technologies for early disease diagnosis. More immediately, health and medical research in Australia continues to tackle how to best deliver healthcare, providing critical evidence that addresses clinically important unanswered questions.

All Australians benefit from strong investment in health and medical research and innovation. The opportunity provided through the health, medical research and innovation sector is immense for both the health and wealth of our nation. From a national security perspective, a strategic investment in enhanced medical production and preparation for the next pandemic can help ensure Australians have access to vital medical products at future times of crisis.

Longer term, positioning Australia as a nation with a strong advanced manufacturing base and a diversified economy requires a renewed commitment to significant investment in innovation to reverse the declines in recent years that are evident when investment in R&D is considered as a proportion of GDP.

In addition to raising national prosperity and diversifying our economy, smarter investment in health and medical research and innovation can improve the effectiveness and productivity of our health system, constraining the rise in health costs that accompany an ageing population. It can also provide a sustainable pathway to addressing modern lifestyle factors such as obesity. Smarter investment also drives skilled employment in vibrant new pharmaceutical, medical device and biotechnology industries.

Research Australia is pleased to have had the opportunity to make this submission on behalf of our broad membership, which is drawn from across the health and medical research pipeline. We are also willing to provide further information and/or contribute further to support all efforts in ensuring health and medical research can play a leading role in supporting productivity gains, both health and financial in securing Australia's healthy future.

ABOUT RESEARCH AUSTRALIA

Our vision: Research Australia envisions a world where Australia unlocks the full potential of its world-leading health and medical research sector to deliver the best possible healthcare and global leadership in health innovation.

Our mission: To use our unique convening power to position health and medical research as a significant driver of a healthy population and contributor to a healthy economy.

Our role:

Engage	Connect	Influence
Australia in a conversation about the health benefits and economic value of its investment in health and medical research.	researchers, funders and consumers to increase investment in health and medical research from all sources.	government policies that support effective health and medical research and its routine translation into evidence-based practices and better health outcomes.

Established with the assistance of the Federal Government in 2002, Research Australia is the national alliance representing the entire health and medical research (HMR) pipeline, from the laboratory to the patient and the marketplace. Research Australia works to position Australian HMR as a significant driver of a healthy population and a healthy economy.

Nadia Levin

CEO & Managing Director

02 9295 8547

nadia.levin@researchaustralia.org

www.researchaustralia.org

384 Victoria Street Darlinghurst NSW 2010

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