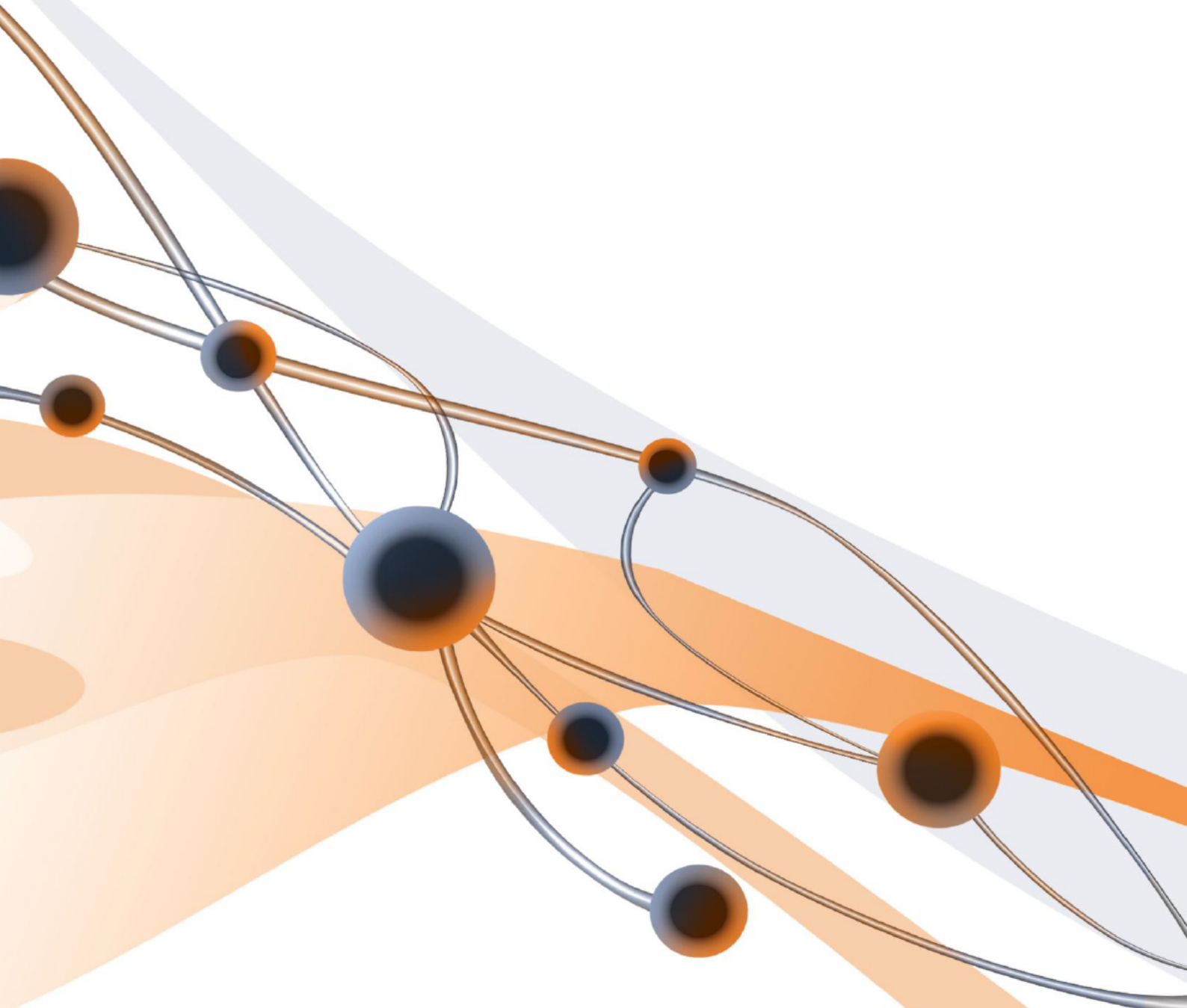


Harnessing data and digital technology

Interim Report Submission

September 2025



**RESEARCH
AUSTRALIA**

*Championing
Australian health
& medical research
& innovation*

Background

Research Australia, as the national alliance and peak body for health and medical research and innovation, welcomes the opportunity to respond to the Productivity Commission's (PC) *Creating a more dynamic and resilient economy* interim report, by way of a written submission.

Research Australia is deeply committed to the government's focus on productivity. We recognise health and medical research, development and innovation not merely as a contributor to productivity, but a fundamental cornerstone of Australia's productivity agenda, driving economic diversification, resilience, growth and budget sustainability. The health and medical research and innovation sector contributes to both a healthy nation, and a healthy economy.

It is well established, investing in health and medical research is budget positive and economically generative – every dollar invested in Australian health and medical research yields close to \$4 to the Australian economy¹, however, it is likely to be much more. Let's take arthritis and musculoskeletal conditions as an example - affecting 7 million Australians, accounting for 13% of disease burden; forcing over 50,000 Australia's out of the workforce (the second leading cause of early retirement) and costing the health system \$16 billion annually². In a Research Australia cost benefit analysis, the return of investment of a \$100 million, 10-year research mission dedicated to arthritis and musculoskeletal conditions, would see a return of every \$1 invested generating \$4.61 back to the Australian economy³. It would also contribute to productivity through a 2.2x reduction in burden to the health system; potential \$361million net return to the Australian economy; and support over 60 research jobs per annum⁴.

In a typical year, poor health reduces global GDP by 15 percent⁵. Better health could add \$12 trillion to global GDP in 2040, an 8 percent boost that translates into 0.4 percent faster growth every year⁶. The health and medical research, development and innovation sector is a vital component in improving the health and wellbeing of Australians and maximising the economic gains associated with doing so. Beyond immediate health benefits, the sector drives job creation, supports high-value industries, and improves workforce participation by reducing the burden of disease. Australia's economic future hinges on ensuring the health and medical research, development and innovation sector is prioritised and supported to flourish.

National prioritisation of health and medical research, development and innovation within the productivity agenda will position Australia as a leader in health outcomes, global innovation, enhance economic diversification, and respond to demographic and healthcare system pressures with evidence-driven solutions. In order to achieve cost neutral, we have to continue to invest, even modestly, in order to drive economic diversification, resilience, growth and budget.

¹ KPMG. (2018). 'Economic Impact of Medical Research in Australia'. KPMG.

² Research Australia. (2025). 'Call for an Arthritis and Musculoskeletal Medical Research Future Fund (MRFF) Mission: Recovery'. See https://researchaustralia.org/wp-content/uploads/2025/09/RA-x-AA_MRFF-Communique.pdf

³ Ibid.

⁴ Ibid.

⁵ McKinsey Global Institute. (2020). 'Prioritizing health: A prescription for prosperity'. McKinsey & Company.

⁶ Ibid.

Health and Medical Research Quick Facts

- For every \$1 invested in medical research, at least \$4 is returned to the Australian economy^{7 8}
- Chronic conditions account for around \$82 billion (or 48%) of all disease spending⁹
- Around a quarter (24%) of all Australian Research and Development (R&D) is spent on HMR¹⁰
- 2.9% of the \$252.5 billion spent on health is on HMR¹¹

The productivity potential of the health and medical research, development and innovation sector to all of the government's 5 pillar productivity agenda is extensive:

A more dynamic and resilient economy: Health and medical research, development and innovation improves population health; lowers healthcare costs; and supports economic growth by advancing disease prevention, diagnosis, and treatment through local industries and global investment.

Investing in the net zero transformation: Contributing to climate goals by reducing the healthcare system's carbon footprint, developing sustainable technologies, and informing policy on climate-related health risks, aligning climate, health and productivity agendas.

Building a skilled and adaptable workforce: A healthier population underpins a productive and innovative workforce across every sector. Specifically, expanding the health and medical research, development and innovation sector offers career pathways in emerging fields like MedTech and digital health, fostering a highly skilled domestic workforce, contributing to our knowledge economy.

Harnessing data and digital technology: Australia's ability to boost productivity is closely linked to its adoption of digital and data innovation, where the benefits of technological and digital transformation are nowhere more evident than in digitally and AI enabled healthcare system which realises the potential of health data as a critical national asset.

Delivering quality care more efficiently: The health and medical research, development and innovation sector drives improvements in healthcare delivery by embedding innovation into clinical practice, informing evidence-based policy, and supporting real-world and consumer-led research. These activities reduce health disparities, improve outcomes, and contain costs to the health system, contributing to a more efficient, sustainable and value-based healthcare system aligned with national productivity goals.

⁷ KPMG. (2018). 'Economic Impact of Medical Research in Australia'. KPMG.

⁸ Research Australia. (2025). 'Call for an Arthritis and Musculoskeletal Medical Research Future Fund (MRFF) Mission: Recovery'. See https://researchaustralia.org/wp-content/uploads/2025/09/RA-x-AA_MRFF-Communique.pdf

⁹ Australian Institute of Health and Welfare (AIHW). 'Health system spending on disease and injury in Australia 2022–23'. Accessed 4 September 2025

¹⁰ Research Australia Analysis of ABS. (2025). 'Research and Experimental Development, Businesses, Australia Dataset'. See <https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-businesses-australia/2023-24>. Accessed 1 September 2025.

¹¹ AIHW. (2024). 'Health expenditure Australia 2022–23'. See <https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2022-23/contents/overview/total-health-spending>. Accessed 4 September 2025.

About Research Australia

Setup by government following a landmark review in 2000, Research Australia is the national peak body for the health and medical research and innovation sector. Our membership is drawn from the whole pipeline of health and medical research and innovation, from universities and medical research institutes to charities and patient groups, and health care providers and companies commercialising new health technologies. Our priorities include a whole of systems approach to health and medical research and innovation, smarter investment, workforce and advancing prevention. Underpinning these priorities are equitable health outcomes; collaboration; AI and digital health, data and data linkage.

Research Australia offers the following insights and recommendations, drawing upon our expertise and previous work as the collective voice of the HMR&I ecosystem, to inform the finalisation of the Productivity Commission's report. This submission also draws on a recent Research Australia Health Economics Symposium, which convened more than 100 policymakers, health economists, clinicians, researchers, consumer peak organisations and industry leaders. Held at a critical moment of national policy reform, the Symposium reached clear consensus that if we harness our research strength, apply health economics to policy making and invest in health services research, we can strengthen our health systems and build a healthier population and a more productive, competitive Australia.

Research Australia remains committed to progressing the recommendations and broader insights from our membership across the ecosystem.

Summary of Recommendations:

Enabling AI and Digital Leadership	• <i>Implement a domain-specific approach to AI regulation, adapting existing regulatory frameworks rather than implementing broad, new AI-specific mandates.</i> • <i>Prioritise measuring the effects of AI and digital technology on the healthcare system and wider economy by health economists and health service researchers to direct investment and inform future policy direction.</i> • <i>Adopt a two-tier governance approach where general principles are applied across the whole of government to guide regulation, with detailed implementation provided by the regulator closest to the industry.</i> • <i>Prioritise public trust and social licence in the adoption of AI technologies.</i> • <i>Build awareness and establish governance frameworks that enable trust, equity and innovation to ensure AI enhances, rather than undermines, equitable access and outcomes in healthcare.</i> • <i>Invest in building a skills system which supports digital and AI capabilities across the workforce.</i>
Expanding Data Access and Data Linkage	• <i>Expedite a bipartisan national health data framework to guide long-term investment and coordination in Australia's health and medical data infrastructure to enable world-</i>

	<i>leading data-driven research, improvement, and innovation.</i> • <i>Embed system-wide solutions that are person-centred, community-driven, inclusive, and ensure the prevention of bias.</i> • <i>Embed equitable approaches to data governance, access, and use to ensure that the benefits of data-driven healthcare and research and innovation are shared broadly across Australia.</i> • <i>Address inadequate support for data sharing and collaboration and inconsistent privacy and governance frameworks as key inhibitors to health R&D.</i> • <i>Restore funding to the ABS to improve R&D data capture and analysis, as a first step towards a robust framework for measuring impact.</i>
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Introduction

The Interim Report's focus on enabling AI's productivity potential and creating new and safe pathways for data access aligns with Research Australia's priorities for strengthening national productivity. We believe that the benefits of technological and digital transformation are nowhere more evident than in a digitally and AI-enabled healthcare system. For example, the PC's own analysis estimated that making better use of data in electronic medical record systems could save up to \$5.4 billion per year by reducing the length of time patients spend in hospital, and up to \$355 million through fewer duplicated tests¹². It is therefore vital that we harness Australia world-class research and innovation capabilities in this area to safeguard future productivity gains.

Research Australia acknowledges and directs the Productivity Commission to a recent report by Digital Health Cooperative Research Centre (Digital Health CRC), titled 'Health data is a national asset: observations into unlocking the value of Australia's health and medical data for research, improvement and innovation'¹³. The report provides a comprehensive summary of the current state of play and pathways forward in this space. Research Australia look forward to further collaboration with Digital Health CRC and other stakeholders, [building on our previous work](#)¹⁴, to ensure Australia can be a global leader in data-driven health care delivery, medical research and innovation.

Enabling AI and Digital Leadership

Previous estimates suggest generative AI could add up to \$115 billion in productivity gains to the Australian economy by 2030, equating to a 5% uplift in gross domestic product¹⁵. It is therefore

¹² Productivity Commission. (2024). 'Leveraging digital technology in healthcare'. Australian Government. Pg 2.

¹³ Digital Health CRC. (2025). 'Health Data is a National Asset: Observations into unlocking the value of Australia's Health and Medical Data for Research, Improvement and Innovation'. Digital Health Cooperative Research Centre.

¹⁴ See [Communique](#)

¹⁵ Department of Industry, Science and Resources. (2024). 'Submission to the Select Committee on Adopting Artificial Intelligence (AI)', No 160. Pg 69.

vitality important Australia adopts AI in a safe, responsible, and ethical way while harnessing and maximising its potential productivity gains.

Research Australia supports the PC's emphasis on sensible regulation to build community trust and business confidence in AI technology, and the call for regulatory responses to be proportionate, risk-based, outcomes-based, and technology-neutral where possible¹⁶. We concur with the need for comprehensive gap analyses of existing regulatory frameworks to understand AI-related risks before introducing new, economy-wide AI-specific regulations. Measuring the effects of AI and digital technology on the healthcare system and wider economy by health economists and health service researchers should also be prioritised to inform future investment and policy direction.

Research Australia strongly advocates for a domain-specific approach to AI regulation, adapting existing regulatory frameworks rather than implementing broad, new AI-specific mandates. We propose a two-tier governance approach where general principles are applied across the whole of government to guide regulation, with detailed implementation provided by the regulator closest to the industry. For the health sector, the Therapeutic Goods Administration (TGA) is best positioned for this role, given its existing risk-based regulatory framework for medical devices that incorporate AI and recent review of legislation and regulation.

We also underscore the importance of public trust and social licence in the adoption of AI technologies in healthcare and research, advocating for community engagement through mechanisms like citizens' juries and participatory frameworks to build legitimacy, transparency, and consent. It is critical to incorporate the diverse voices of consumers, patients, clinicians, and other stakeholders into AI-related policies and practices. Furthermore, from a health perspective, upskilling the workforce is a pressing concern, requiring both technical training and support to navigate the ethical, legal, and cultural implications of AI. As noted by Jobs and Skills Australia, the skills system will play a central role in Australia's response to the Gen AI transition¹⁷.

As AI technologies become increasingly embedded in healthcare and research, it is vital to prioritise diversity and equity in their design and implementation. We must remain vigilant about the potential for bias in data, algorithms, and decision-making, as these can inadvertently amplify existing health inequities. Building awareness and establishing governance frameworks that enable trust, equity and innovation are essential steps to ensure AI enhances, rather than undermines, equitable access and outcomes in healthcare. Research Australia is committed to cross-sector collaboration to embed AI technologies ethically and inclusively in healthcare. As an example, Research Australia recently held a workshop on Ethical AI in Health & Research, hosted in collaboration with the AI Co-Lab¹⁸, to elevate a dialogue on fostering cross-sector collaboration to ensure AI enhances healthcare inclusively, responsibly, and ethically.

¹⁶ Productivity Commission. (2025). 'Harnessing data and digital technology Interim report'. Australian Government. Pg 2.

¹⁷ Jobs and Skills Australia. (2025). 'Our Gen AI Transition'. Australian Government. Pg 77.

¹⁸ See [Communique](#)

Recommendations:

- *Implement a domain-specific approach to AI regulation, adapting existing regulatory frameworks rather than implementing broad, new AI-specific mandates.*
- *Prioritise measuring the effects of AI and digital technology on the healthcare system and wider economy by health economists and health service researchers to direct investment and inform future policy direction.*
- *Adopt a two-tier governance approach where general principles are applied across the whole of government to guide regulation, with detailed implementation provided by the regulator closest to the industry.*
- *Prioritise public trust and social licence in the adoption of AI technologies.*
- *Build awareness and establish governance frameworks that enable trust, equity and innovation to ensure AI enhances, rather than undermines, equitable access and outcomes in healthcare.*
- *Invest in building a skills system which supports digital and AI capabilities across the workforce.*

Expanding Data Access and Data Linkage

Research Australia identifies a critical need for a unified national coordinated data capability to strengthen data-driven healthcare, accelerate research and innovation, and improve health outcomes. This includes making remote access to electronic medical records and patient data simpler, in line with the Government's new digital health strategy. A recent Research Australia and Digital Health CRC Workshop, that brought together key stakeholders from across the health and medical data, research and innovation ecosystem, highlighted how developing a unified nationally coordinated data capability should be seen as a critical national asset and its creation expedited as part of Government's productivity agenda. We note the lack of national leadership or long-term strategy to optimise Australia's health and medical data, limited discoverability due to fragmentation, and barriers to timely data access. There is a need for coordinated, system-wide solutions that are person-centred, community-driven, inclusive, and ensure the prevention of bias. Public trust, ethical frameworks, social licence, and managing complexity are foundational to these efforts.

While supporting the PC's call for lower-cost and more flexible regulatory pathways for data access, Research Australia stresses that these must be developed alongside efforts to improve existing health data initiatives like the My Health Record (MHR) system. We welcome the Modernising My Health Record (Sharing by Default) Act 2025 as a step towards compelling providers to upload test results by default and the allocation of funds to increase allied-health software compatibility with MHR and electronic prescribing.

While expanding data access and strengthening data linkage are critical to advancing both healthcare and research and innovation, equity must be at the centre of this effort. It is essential to ensure that diverse populations are represented in linked datasets, including groups historically under-represented in research. Equitable approaches to data governance, access, and use will help avoid reinforcing existing disparities and ensure that the benefits of data-driven healthcare and research and innovation are shared broadly across Australia.

Furthermore the National Agreement to Closing the Gap, in particular Priority Reform 4 and the broader Indigenous data sovereignty movement should underpin this work.

We also highlight that inadequate support for data sharing and collaboration, coupled with inconsistent privacy and governance frameworks, inhibits effective R&D in health. In addition, current ABS data on R&D activity is insufficient in detail and frequency, making it difficult to assess the performance of specific sectors like human pharmaceuticals manufacturing, a strategic target for Australian Government investment. Australia should act on the Innovation Metrics Review and restore funding to the ABS to improve R&D data capture and analysis, as a first step towards a robust framework for measuring impact.

Recommendations:

- *Expedite a bipartisan national health data framework to guide long-term investment and coordination in Australia's health and medical data infrastructure to enable world-leading data-driven research, improvement, and innovation.*
- *Embed system-wide solutions that are person-centred, community-driven, inclusive, and ensure the prevention of bias.*
- *Embed equitable approaches to data governance, access, and use to ensure that the benefits of data-driven healthcare and research and innovation are shared broadly across Australia.*
- *Ensure adherence and elevation of Priority Reform 4 of the National Agreement of Closing the Gap, and the Indigenous Data Sovereignty movement.*
- *Address inadequate support for data sharing and collaboration and inconsistent privacy and governance frameworks as key inhibitors to health R&D.*
- *Restore funding to the ABS to improve R&D data capture and analysis, as a first step towards a robust framework for measuring impact.*

Conclusion

The HMR&I sector is a nationally significant driver of productivity, economic diversification, and resilience. Our ability to harness data and digital technology is intrinsically linked to Australia's future prosperity. Research Australia believes that by adopting outcomes-focused regulatory approaches outlined above, particularly in relation to AI governance and data access, Australia can effectively mitigate risks while unlocking the immense potential of data and digital innovation in health and medical research. This will ensure a robust, productive, and healthy future for all Australians.

Research Australia stands ready to provide further information and engage collaboratively to advance these critical national priorities.

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