



AAHMS submission to the Australian Government Treasury's Employment White Paper consultation

November 2022

Key Messages

- A lack of long-term, secure funding has created widespread job insecurities for Australia's research and innovation workforce, including – concerningly – in the health sector.
- There are diversity and inclusion issues within the healthcare and health research sectors, which hinder efforts to develop a high performing workforce, such as gender inequities for grant applications and funding.
- Insufficient planning and infrastructure means Australia lacks the workforce to fully realise its data-enabled research potential.
- Investing in research and innovation creates high value, knowledge-based jobs that support economic growth and productivity. A highly skilled workforce encourages international inward investment and development of products and services that are at the frontier of innovation.
- A research workforce that reflects the full diversity of the population in which it works is best equipped to understand and address the health challenges faced by all the individuals and communities within it.
- Embedding research and innovation as cores function of the health system will improve productivity, retention and job satisfaction within the health workforce.

Introduction

The Australian Academy of Health and Medical Sciences welcomes the opportunity to respond to the Treasury's Employment White Paper. We are Australia's Learned Academy for health and medical sciences – the impartial, authoritative, cross-sector voice for the sector. We advance health and medical research in Australia and its translation into benefits for all, by fostering leadership within our sector, providing expert advice to decision makers, and engaging patients and the public.

We are an independent, interdisciplinary body of Fellows – elected by their peers for their outstanding achievements and exceptional contributions to health and medical science in Australia. Collectively, they are a representative and independent voice, through which we engage with the community, industry and governments.

Combined, the healthcare and social assistance sector, and the education and training sector, employ 23.2% of Australia's workforce, including those involved in health and medical research and innovation.¹ As Australia resets after a pandemic that brought a considerable burden for those working in health and medical sciences, careful consideration is needed to support this workforce.²



1. Full employment and increasing labour productivity growth and incomes, including the approach to achieving these objectives.

Investing in research and innovation creates employment opportunities and improves overall productivity.³ **Jobs in research are often highly skilled and highly valuable. Investing in this workforce therefore brings considerable returns.** Between 1990 to 2004, every dollar invested in health and medical research brought a return of \$3.90.³ The benefits of investment go beyond economic gains. A 2018 report from KPMG found that medical research supports 32,000 jobs, with an additional 78,000 in the downstream Medical Technologies and Pharmaceuticals (MTP) sectors.³ These are high value jobs that contribute to GDP, with 2018 figures showing that medical researchers contribute \$134,000 per full-time equivalent (FTE) and those in the MTP sectors contribute \$107,000 per FTE.³

Australia currently experiences a funding and operational divide between its health system and research and innovation, impacting employment and productivity. This affects the nation's ability to maximise our investment in research and best translate findings into policy and practice.

In our October 2022 report, '*Research and Innovation as Core Functions in Transforming the Health System: A Vision for the Future of Health in Australia*', the Academy explained how Australia can get more out of the health system and improve outcomes for the Australian community by embedding research and innovation as core functions of the health system.⁴

International evidence shows us that research-rich health environments are better for patients and staff. Embedding research and innovation at the heart of health systems can enhance the quality and safety of care, as well as improve staff retention and satisfaction.⁴ However, we are not currently providing the necessary opportunities for the workforce to reap these rewards. In particular, our report highlighted that:⁴

- There currently is no clear career pathway in the health system for clinician researchers – individuals who combine clinical and academic roles. This leads to substantial uncertainty about future employment, disincentivising the career pathway. This issue has been highlighted by many reports but never addressed, because no single organisation, body, or government is clearly responsible for developing and implementing a pathway. **Clinician researchers need a formal, harmonised training and career pathway that allows them to undertake work as both a researcher and a health professional.**
- Research-active health professionals, who are involved in research but not formally as clinician researchers, need to be more supported and celebrated, **including through dedicated research time and recognition in job descriptions.**

We heard from health professionals and researchers alike that they face substantial challenges. Under current arrangements, clinician researchers essentially need to secure two positions – one clinical and one research – and both employing entities (i.e. a health service provider and a research institution) need to have mechanisms in place to enable joint appointment. How this occurs varies across the country, but most clinician researchers need to make their own arrangements, usually liaising with two different employers. This brings complex challenges and highlights barriers to developing the health and research workforce; for example, being subject to two different enterprise agreements and salary scales



associated with their two employers. With few incentives or supports in place, they often face an uncertain future. This pathway is challenging, whether you are a doctor, nurse, midwife or allied health professional.

During evidence collection for our report, we heard of health professionals and researchers struggling to make dual positions a sustainable option. Some of those interested in research have left their clinical work altogether because of a lack of positions that allow both. Others have moved to purely clinical positions and there are a range of possible causes for this, for example difficulties attracting research funding.⁴ For instance, due to a lack of integration between the health system and academia, nurses, midwives and allied health professionals who want to pursue both a clinical and research career are often unable to pursue both. These challenges are reflected in international data, for example only a small proportion of nurses or midwives who have a PhD or similar qualification work in research positions within their clinical practice.⁵ Some healthcare settings in Australia also experience high rates of staff turnover, consistently impacting productivity.⁶ **Given Australia's current health labour shortages, we should be looking for ways of increasing staff satisfaction and retention.** Evidence shows that enabling those interested in research and innovation to pursue those interests would greatly assist.⁶

2.3 The transformation associated with digitalisation and emerging technologies.

Our 2022 report, '*Australia's Data-Enabled Research Future: Health and Medical Sciences*', described how Australia's workforce lacks the data skills to realise the full potential of a research landscape supported by data.⁷ It outlined the requirements for a data-enabled research future in Australia in the health and medical sciences. The report described a range of concerns and shortcomings that currently impact on Australia's ability to adequately create, store and share data now and into the future. A major concern was the state of Australia's data workforce. At present, we see instances in Australia where data skills need to be sourced from overseas to meet our data demands.⁷ Border closures resulting from the COVID-19 pandemic further exacerbated these workforce shortages.

Some of the key findings and subsequent recommendations from this report include:

- Growing and nurturing data skills will be crucial to advancing the future of research and innovation in Australia – and therefore to yielding the associated benefits of investing in these endeavours.
- Australia needs to invest in strategic workforce planning and training to improve data skills, including those for data collection, analysis, interpretation, communication and development of data informed policy.
- Options that may need to be explored include prioritising appropriate visa provisions for individuals who bring these skills and creating attractive career pathways research.



3. Job security, fair pay and conditions, including the role of workplace relations.

Early and mid-career researchers (EMCRs) generally face a high level of job insecurity in Australia.⁸ Many EMCRs are only able to access a string of short-term contracts, often just one year, after they complete their PhD (or equivalent), for instance because universities commonly enforce that contracts over 12 months must be advertised externally. This increasing casualisation of the research workforce is leading to ongoing job insecurity that causes even some of the best researchers to leave research altogether.

This situation has been compounded by a real decrease in research funding available from sources such as the National Health and Medical Research Council (NHMRC), leading to historically low grant success rates.⁴ Grant amounts have not increased in line with the costs of research, which have risen for several reasons, including inflation and the need – in some cases – for more sophisticated equipment or broader expertise across a team. Consequently, many grants do not reflect the true costs of research, with additional funds needing to be sought from other sources,

The pandemic has only served to exacerbate job insecurities for researchers.² It brought about a reduction in international higher education students, philanthropy and overall university income. Subsequently, universities and research institutions cut casual teaching staff and increased the teaching load of permanent staff to make ends meet, reducing their research capacity.²

Research and innovation see similar issues in diversity and inclusion to other sectors. For instance, there are significant and systemic gender disparities in health and medical sciences, where the most senior levels (associate professor and professor) are consistently held by a higher proportion of men than women.^{4,9} The NHMRC recently reported on this trend, noting that its Investigator Grants scheme sees men applying at higher rates for the most senior levels of these grants, and consequently being awarded more grants and more funding.¹⁰ These gender disparities reveal a systemic issue and the NHMRC concluded that this demands a more proactive intervention.¹¹

4. Pay equity, including the gender pay gap, equal opportunities for women and the benefits of a more inclusive workforce.

The Academy has previously highlighted inequalities in opportunities for a number of groups, including Aboriginal and Torres Strait Islanders, women and culturally and linguistically diverse (CALD) individuals.⁴ We strongly support the need for a more inclusive research and innovation workforce because a workforce that adequately reflects the diversity of the population in which it works is better equipped to understand the health challenges it faces.⁴

The Chief Scientist's Rapid Research Information Forum, to which the Academy was a key contributor, published a paper highlighting the pandemic's impact on women in science, technology, engineering and maths (STEM).¹² Women are underrepresented in STEM and generally experience more insecurity in their work. The pandemic led to reduced opportunities for paid work, however, women saw a significantly larger decrease in paid work opportunities compared to men. The pandemic exacerbated gender disparities faced by



women in the health and medical sciences sector and this issue needs to be urgently addressed, as highlighted above under TOR 3.

Aboriginal and Torres Strait Islander peoples make up a very small portion of researcher workforce.⁴ This impacts on efforts to develop a thorough understanding of their unique experiences and on their capacity to influence the health and healthcare of First Nations Peoples. The NHMRC reported that Aboriginal and Torres Strait Islander researchers face the same barriers as the wider workforce, but also face significant additional challenges which prevent them from thriving.¹³ Some examples of barriers they may face include workplace racism, very limited career opportunities, limited support, and low numbers of Aboriginal and Torres Strait Islander senior colleagues to provide mentorship.

A recent report from the Australian Council of Learned Academies (ACOLA), '*Enhancing Disability Responsiveness of Professionals*', to which the Academy contributed, calls for better, more thorough and ongoing education surrounding disability for both the institutions educating future professionals and for workplaces.¹⁴ The report stressed that any work to improve disability responsiveness within the workforce should be progressed alongside people living with disability. By better equipping our workforce to improve its disability responsiveness, we can move towards a more inclusive workforce.

6. The role of collaborative partnerships between governments, industry, unions, civil society groups and communities, including place-based approaches.

The Academy sees collaboration as a crucial pathway for increasing the efficiency, effectiveness and responsiveness of our health system and its workforce.⁴

Our October 2022 report, '*Research and Innovation as Core Functions in Transforming the Health System: A Vision for the Future of Health in Australia*', highlighted that Australia is not currently maximising health innovation and commercialisation opportunities. Addressing patient needs and improving healthcare through cutting-edge research is best achieved by integrated research teams that incorporate multidisciplinary insights and expertise. More work is needed to develop a health-academia-industry interface that facilitates the work of integrated teams – including providing more opportunities for the workforce to develop relevant skills and enabling more mobility for individuals to move between sectors.

Knowledge brokers are key to building successful integrated teams – they are individuals or organisations that bring ideas and people together, building collaborations and partnerships.¹⁵ Australia needs to do more to nurture individuals who can work across sectors in this way.⁴

Individuals working in the research workforce should also be given opportunities to develop so-called 'softer' skills, including business and entrepreneurship, leadership, patient and public involvement, communication and teamworking. These kinds of approaches will help Australia make more of its intellectual property (IP) and commercialisation opportunities, generating opportunities for economic growth and productivity.



Australian Academy
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This briefing has been informed by contributions from Fellows and Associate Members of the Australian Academy of Health and Medical Sciences as well as other experts. We are grateful for their valuable contributions.

For questions about this submission, or to arrange a consultation with Fellows of the Academy, please contact Lanika Mylvaganam (policy@aahms.org) at Australian Academy of Health and Medical Sciences.



References

1. National Skills Commission. *Australian Labour Market Overview-September 2022.*; 2022. Accessed October 31, 2022. <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release>.
2. Rapid Research Information Forum. *Impact of the Pandemic on Australia's Research Workforce*.; 2020. Accessed October 31, 2022. <https://aahms.org/wp-content/uploads/2022/03/rrif-covid19-research-workforce.pdf>
3. KPMG. *Economic Impact of Medical Research: A Report Prepared for the Association of Australian Medical Research Institutes.*; 2018.
4. Australian Academy of Health and Medical Sciences. *Research and Innovation as Core Functions in Transforming the Health System: A Vision for the Future of Health in Australia.*; 2022. Accessed October 25, 2022. www.aahms.org/vision
5. Queensland Health. *Nursing and Midwifery Research Framework.*; 2020. <https://qheps.health.qld.gov.au/nmoq/profesional-capability>.
6. Wakeman J, Humphreys J, Russell D, et al. Remote health workforce turnover and retention: What are the policy and practice priorities? *Hum Resour Health.* 2019;17(1):1-8. doi:10.1186/S12960-019-0432-Y/FIGURES/2
7. Australian Academy of Health and Medical Sciences. *Australia's Data-Enabled Research Future: Health and Medical Sciences.*; 2022. Accessed October 25, 2022. www.aahms.org
8. Christian K, Johnstone C, Larkins JA, Wright W, Doran MR. A survey of early-career researchers in Australia. *Elife.* 2021;10:1-19. doi:10.7554/ELIFE.60613
9. Science in Australia Gender Equity. Gender equity in higher education. Accessed May 5, 2022. <https://sciencegenderequity.org.au/about/gender-equity-in-higher-education/#tab-15056>
10. Kelso A. Gender disparities in NHMRC's Investigator Grant Scheme: CEO Communique - February 2022. Published 2022. https://www.nhmrc.gov.au/about-us/news-centre/gender-disparities-nhmrcs-investigator-grant-scheme?utm_medium=email&utm_campaign=CEO%20communique%20-%20Gender%20disparities%20in%20NHMRCs%20Investigator%20Grant%20Scheme&utm_content=CEO%20communique%20-%20Gender%20disparities%20in%20NHMR
11. National Health and Medical Research Council. Working towards gender equity in Investigator Grants. Published October 12, 2022. Accessed October 31, 2022. <https://www.nhmrc.gov.au/about-us/news-centre/working-towards-gender-equity-investigator-grants>
12. Rapid Research Information Forum. *The Impact of COVID-19 on Women in the STEM Workforce.*; 2020. Accessed October 26, 2022. <https://aahms.org/wp-content/uploads/2022/03/rrif-covid19-women-stem-workforce.pdf>
13. National Health and Medical Research Council. *Investigating Clinician Researcher Career Pathways Project: Report on Qualitative Research about Career Pathways for*

Aboriginal and Torres Strait Islander Clinician Researchers.; 2021. Accessed November 21, 2022. <https://www.nhmrc.gov.au/about-us/publications/report-qualitative-research-about-career-pathways-aboriginal-and-torres-strait-islander-clinician-researchers>

14. ACOLA. *Ensuring Occupations Are Responsive to People with Disability.*; 2022. Accessed October 31, 2022. <https://acola.org/wp-content/uploads/2022/10/ACOLA-Disability-Responsiveness-Full-Report-2022.pdf>
15. CSIRO. Knowledge brokering. Integration research. Published March 18, 2021. Accessed July 15, 2022. <https://research.csiro.au/integration/knowledge-brokering/>