

SUBMISSION



INQUIRY INTO SUPPORT FOR HEALTH AND MEDICAL RESEARCH FUNDING PRIORITIES

Response to Terms of Reference

July 2024



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About AAMRI WA

The Association of Australian Medical Research Institutes (AAMRI) is the peak body representing medical research institutes (MRIs) across Australia. Our 58 member organisations have more than 20,000 staff and research students, are internationally recognised and undertake half of all government funded health and medical research in Australia.

AAMRI WA is the Western Australian chapter of AAMRI, representing the state's 6 independent medical research institutes. These research centres of excellence are tackling the biggest health challenges of our time, from childhood cancer to heart disease, neurological and respiratory conditions, blindness and hearing loss. Our members are focused on making discoveries and breakthroughs to deliver better health outcomes, and to improve the lives and livelihoods of people in Australia, and worldwide.



Executive Summary

AAMRI WA welcomes the opportunity to provide input to the Education and Health Standing Committee's [Inquiry into support for health and medical research funding and priorities](#).

In particular, AAMRI WA supports the focus on addressing Western Australia's critically low share of national competitive funding for health and medical research.

The Commonwealth provides more than \$1.5 billion a year in health and medical research grants nationally, through the National Health and Medical Research Council (NHMRC) and the Medical Research Future Fund (MRFF).

Western Australia's share of NHMRC funding has fallen from more than 11% in 2015 to just 4% in 2023.

The state's share of MRFF funding is similarly low, at 5.1% in 2023.

For both NHMRC and MRFF, Western Australia's funding share is the lowest of all mainland states - well below expectations for a state that has 10% of the national population¹ and contributes 17.5% to Australia's Gross Domestic Product (GDP)².

This submission therefore focuses primarily on Part (1) of the Inquiry's Terms of Reference, while Parts (2) and (3) are addressed in brief: The terms of reference include:

1. Western Australia's small share of national competitive funding
2. How the state's health and medical research priorities are determined
3. The impact on specific types of research and areas of need.

Summary of Recommendations

1(a)	The WA Government, in partnership with the health and medical research sector, develops a Competitive Grants Strategy in alignment with the WA Health and Medical Research Strategy and the Future Health Research and Innovation (FHRI) Fund Strategy. This strategy would be used to inform and coordinate any policies, initiatives and funding programs aimed at improving WA's competitive grants performance.
1(b)	This Strategy, and a 5-year Funding Strategy to deliver on its components, is shared with research institutions to ensure the efforts of individual organisations are aligned and complementary.
1(c)	A framework is established to review and measure the effectiveness of the Strategy at appropriate intervals.
2(a)	Western Australia's health and medical research priorities are updated and clarified – considering WA's strengths and competitive advantages - through the development of the new FHRI Fund Strategy, in consultation with the sector.
2(b)	The new FHRI Fund Strategy is aligned with the WA Health and Medical Research Strategy.

Overview

Western Australia has a proud record of delivering world-leading, life-changing health and medical research.

Pioneering home-grown discoveries by the likes of Fiona Stanley, Fiona Wood, Barry Marshall and Robin Warren have led to treatments and interventions that have saved or improved lives around the globe.

However, Western Australia's capacity to deliver the next generation of impactful health and medical research is being held back by its critically low share of national competitive funding.

The two major sources of this funding - the National Health and Medical Research Council (NHMRC) and the Medical Research Future Fund (MRFF) - together provide more than \$1.5 billion a year in research grants nationally.

Western Australia's share of NHMRC funding has fallen from more than 11% in 2015 to just 4% in 2023.

The state's share of MRFF funding is similarly low, at 5.1% in 2023.

In both cases, WA's funding share is the lowest of all mainland states - well below expectations for a state that has 10% of the national population³ and contributes 17.5% to Australia's Gross Domestic Product (GDP)⁴.

Various initiatives to address this decline have been implemented in recent years by WA medical research institutes, universities and the State Government. What has been lacking so far is a coordinated and comprehensive plan for action to increase health and medical research funding for the state.

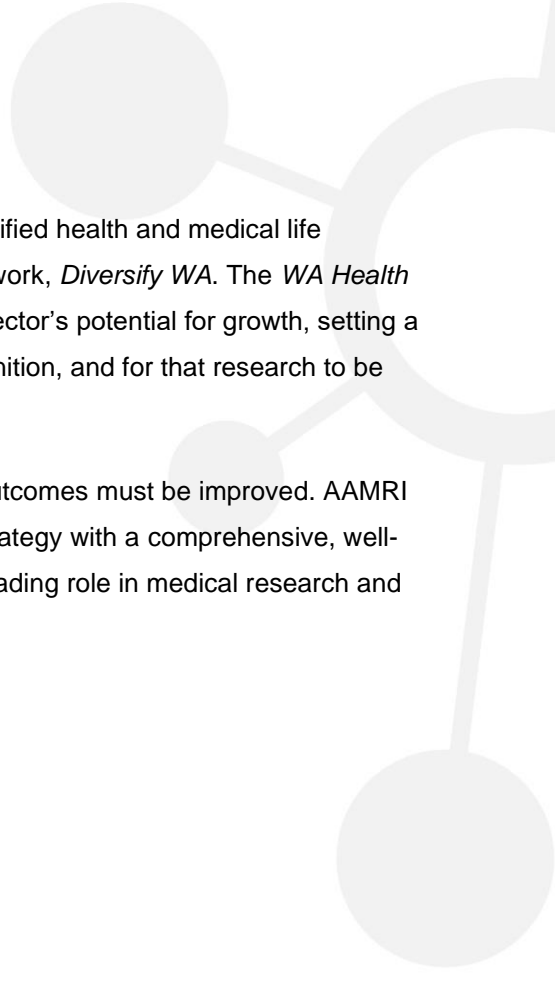
AAMRI WA believes there is an opportunity to develop a strategic approach to improving the state's competitive grant outcomes, in order to meet the strategic objectives of the WA Health and Medical Research Strategy 2023-2033⁵ and the priority goals of the and the FHRI Fund⁶.

Improving competitive grant performance would boost WA's ability to retain and attract the best researchers, and better-position local researchers to leverage philanthropic and industry funding.

This would, in turn, support advancements in research translation and commercialisation - resulting in better health and economic outcomes for the community.

We already know that investing in WA health and medical research delivers strong returns. [Deloitte Access Economics](#)⁷ modelling commissioned by AAMRI WA shows that for every dollar invested in WA medical research, \$2.61 is returned to the national economy. Those benefits extend beyond Australia, with the global return estimated at \$7.58 for every dollar invested.

The analysis also shows that the local health and medical research sector contributed 2,600 jobs and \$322.9 million to the state economy in 2021 alone, with 91% of that value retained in WA. This contribution is only expected to grow – the analysis estimates that because of the state's medical research sector, the WA economy will be \$2.1 billion larger each year, on average, until 2045.



This contribution is well-recognised by the WA Government, which has identified health and medical life sciences as one of eight priority sectors in its economic development framework, *Diversify WA*. The *WA Health and Medical Research Strategy*, released in 2023, also acknowledges the sector's potential for growth, setting a ten-year vision for WA's medical research to increase its international recognition, and for that research to be translated to further improve health outcomes for all.

For this vision to be achieved, WA's share of national competitive funding outcomes must be improved. AAMRI WA recommends that augmenting the WA Health and Medical Research Strategy with a comprehensive, well-resourced Competitive Grants Strategy would help elevate WA to a world-leading role in medical research and translation, resulting in better health, social and economic outcomes for all.

Response to Terms of Reference

1. Western Australia's small share of national competitive funding

Over the past four years (2020-2023), WA's share of NHMRC and MRFF funding has been the lowest of all mainland states.

WA's share of NHMRC funding peaked at 11.42% in 2015. Since then, it fell to as low as 3.49% in 2022, recovering marginally to 4% in 2023 (Figure 1).

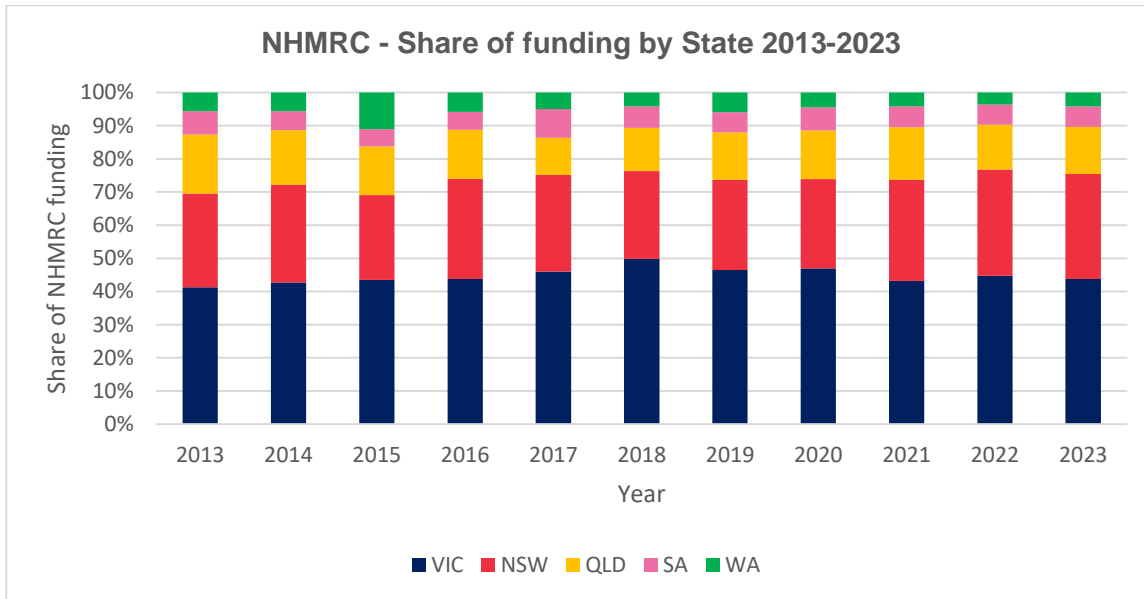


Figure 1: NHMRC funding by state, 2013-2023. (TAS, NT & ACT each received a share of <3% throughout this period). Source: [NHMRC](#)

WA's share of MRFF funding – where not all grant rounds are offered on a competitive basis⁸ - is similarly low, at 5.1% in 2023⁹ - having peaked at 15.7% in 2019¹⁰ (Figure 2).

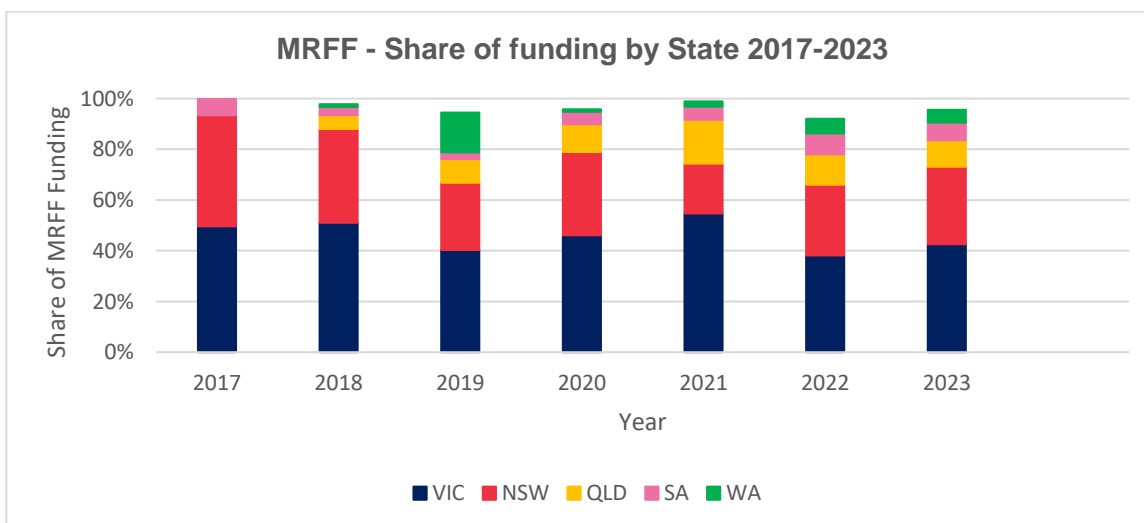


Figure 2: MRFF funding by state 2017-2023 (TAS, NT & ACT each received a share of <5% throughout this period). Source: [Department of Health and Aged Care](#)

Across the NHMRC and MRFF, Victoria is consistently awarded the greatest share of funding (~40%), followed by New South Wales, Queensland, South Australia and Western Australia (**Table 1**).

Significantly, South Australia consistently outperforms Western Australia across both funds – despite having a smaller population and contribution to national GDP. South Australia also has fewer Universities (3) and Medical Research Institutes (4) than Western Australia.

WA’s share of NHMRC and MRFF funding is therefore well below expectations given its share of the national population, contribution to GDP, number of universities (5) and independent Medical Research Institutes (6).

Table 1: State-by-State Comparison: Contribution to GDP, Population; Share of NHMRC Funding; Share of MRFF Funding Source: Reserve Bank of Australia, Australian Bureau of Statistics, NHMRC, MRFF

State	Contribution to GDP (%)	Proportion of national population (%)	Proportion of NHMRC funding (%)		Proportion of MRFF funding (%)	
			2023	2022	2023	2022
VIC	22.2	25.6	41.8	43	42.6	38.1
NSW	30.3	31.3	30.1	30.9	30.5	27.9
QLD	19.7	20.5	13.6	12.9	10.5	12
SA	5.5	6.9	5.9	5.9	6.9	8.2
WA	17.4	10.8	4	3.5	5.1	5.9

Victoria’s success in securing national competitive funding is often attributed to the decades of sustained investment in health and medical research by successive Victorian Governments and research institutions.

A [2021 report](#) commissioned by the Victorian Chief Scientist¹¹ examined the impact of more than \$850 million in Victorian Government funding for the sector between 2000 and 2010. This decade of investment was credited with increasing Melbourne’s share of Australian medical research funding to more than 40% and making Melbourne one of only four cities in the world with two universities in the global top 40 biomedicine rankings. The report also found that every dollar of Victorian government investment in medical research generated more than \$4.50 in economic activity, while helping to create 73,000 direct and indirect jobs.

The Victorian Chief Scientist, Dr Amanda Caples, said: “The ... investments by Government in health and medical research – both large and small – generate clear returns on investment and make a critical contribution to the establishment of a thriving system. Importantly, initial government investments are catalytic; creating a basis for further government, commercial and philanthropic funding which allow for ground-breaking research with transformational impact.”

This is an observation shared by Health Translation Queensland, which published a [report](#) on Queensland's share of national competitive funding for health in medical research in 2022.

It concluded that "Victoria's ability to secure the 'lion's share' of NHMRC funding has a significant long-term impact on the ability to attract researchers, including research active clinicians, particularly at the early stage of their career, and provides Victoria with a distinct advantage as the location of choice for healthcare and Pharma industries"¹².

1(b) Possible reasons for WA's small share of national competitive funding

Does Western Australia have proportionately fewer health and medical researchers than other states?

There are no comprehensive national data on the number of health and medical researchers across medical research institutes (MRIs), universities and hospitals.

However, AAMRI data (on medical research institutes only) shows that WA is home to 8.8% of researchers nationally, across its six MRIs (**Figure 3**).

Queensland – which secures more than three times WA's share of NHMRC funding – has 9.7% of researchers across seven MRIs.

South Australia has 6% of researchers across four MRIs, yet still secures more funding than WA.

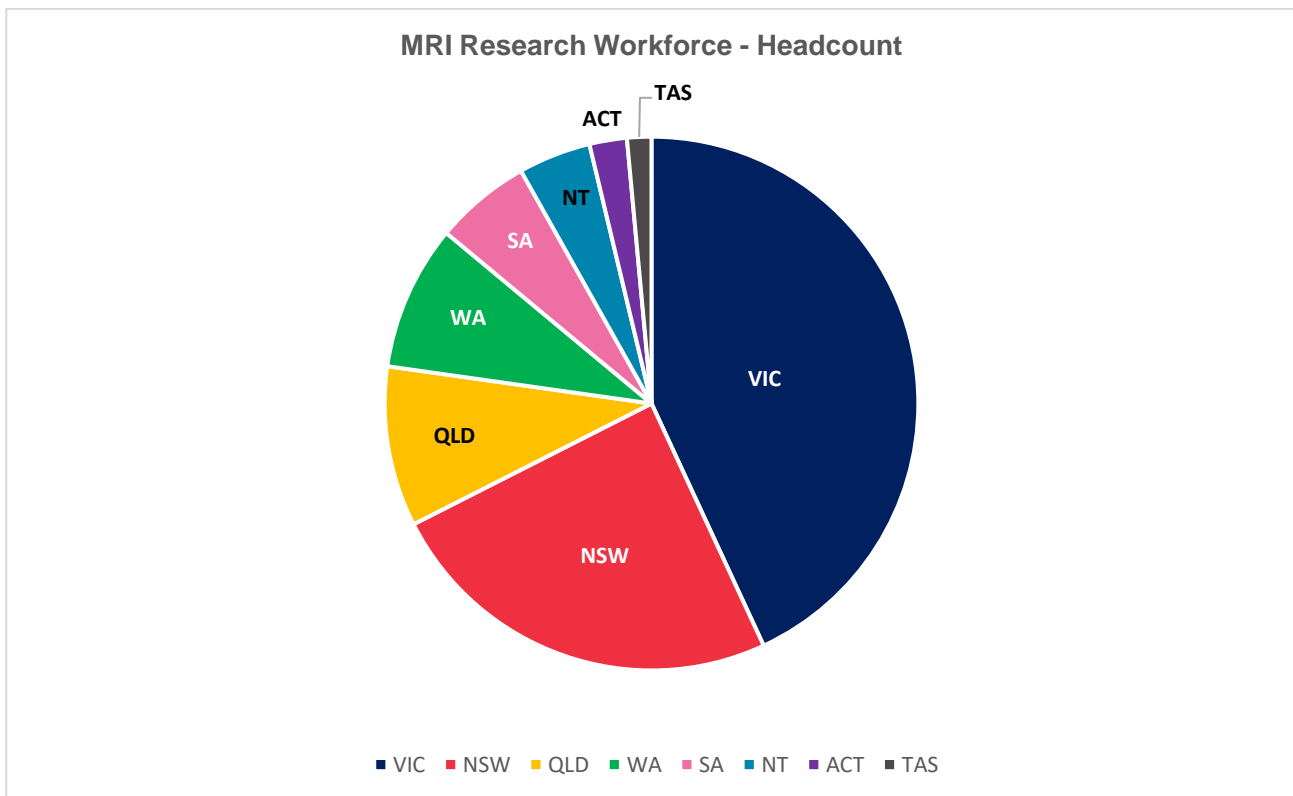


Figure 3: State and territory breakdown of researchers (by headcount) at medical research institutes Source: AAMRI

Are WA researchers applying for grants at a lower rate than their interstate peers?

NHMRC data show that this is the case.

Grant applications from the most populous states dwarf those from Western Australia.

However, there are also consistently more grant applications from South Australia – despite that state having a smaller population and research workforce than WA.

This leaves WA as the mainland state with the lowest number of NHMRC grant applications (**Figure 4**).

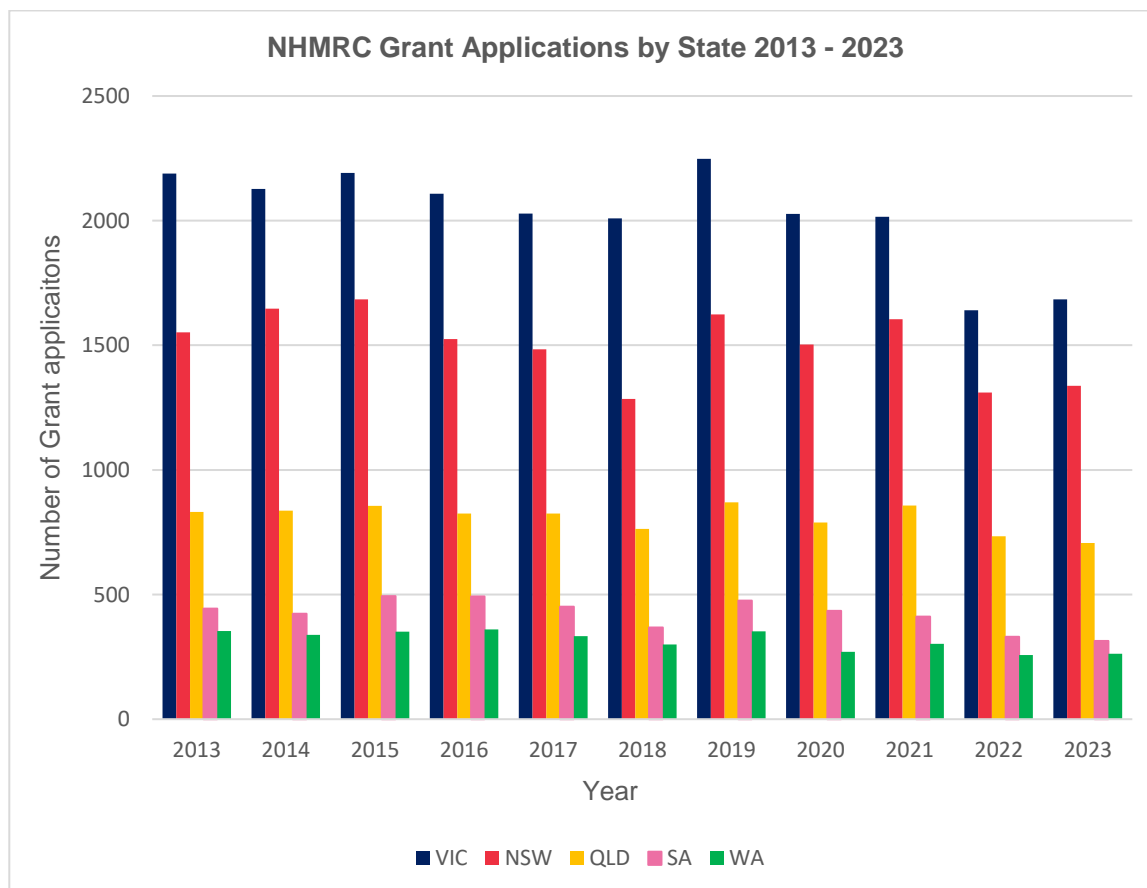


Figure 4: Number of NHMRC Grant applications by state, 2013-2023. Source: [NHMRC](#)

Are WA grant applications of sufficient quality?

This key question is difficult to address due to the lack of publicly available data on grant quality.

Some researchers involved in the peer-review of competitive grant applications from WA have highlighted the need for greater resourcing to ensure competitive grant applications from WA are of the highest possible standard.

Many have suggested that WA look to eastern-states institutions which offer best-practice examples of research development offices providing intensive and strategic grant development support. The level of such support in WA currently varies between research institutions.

In the words of one Western Australian researcher who is an NHMRC peer reviewer:

“I would ... observe that some of the applications that have been going in from WA are not up to scratch. So we really need to work on improving the overall quality and start the planning process for this two years ahead of application, with meetings with RD [Research Development Teams], identifying mentors, addressing CV gaps etc.”

It should be noted that this is not a reflection on the science underpinning the grant applications – rather an observation that more support and resources would give applications from WA a better chance of standing out in a highly competitive field where even the NHMRC acknowledges that “not all high-quality research proposals are able to be funded”¹³.

This is borne out in the low **national** NHMRC success rate – just 14% of all grant applications submitted in 2023 were funded.

On a state-by-state basis, success rates for most jurisdictions have been trending downwards since 2018. While Victoria's success rate is consistently above the national success rate - 15.6% in 2023 - Western Australia's success rate is the lowest of all mainland states – 8.8% in 2023 (**Figure 6**).

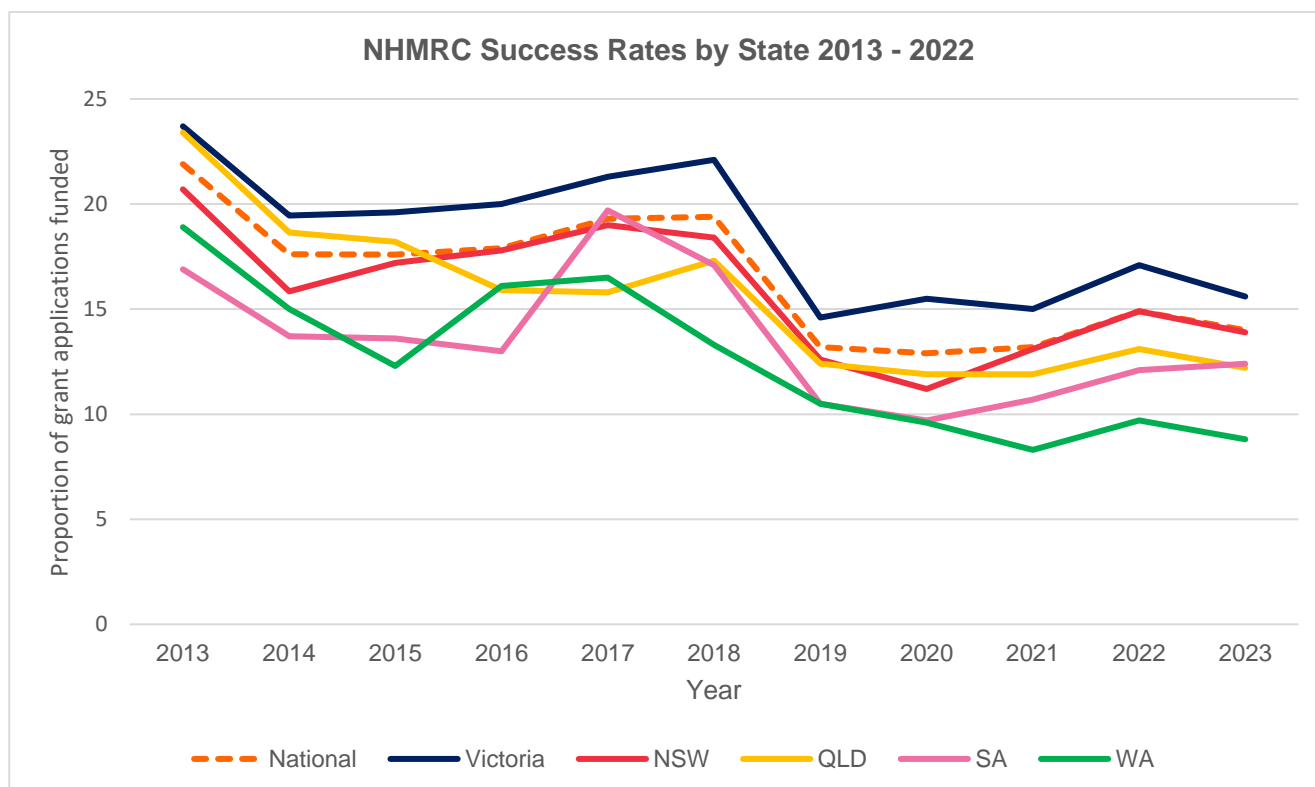


Figure 6: NHMRC Success Rates by State 2013 – 2022 Source: NHMRC

This low success rate affects both emerging and established researchers in WA.

An analysis of the NHMRC’s flagship Investigator Grants scheme (which provides high-performing researchers with a salary and a research support package) shows low numbers of grants (<8) are awarded to WA researchers each year across both the Leadership and Emerging Leadership categories (**Figure 7**).

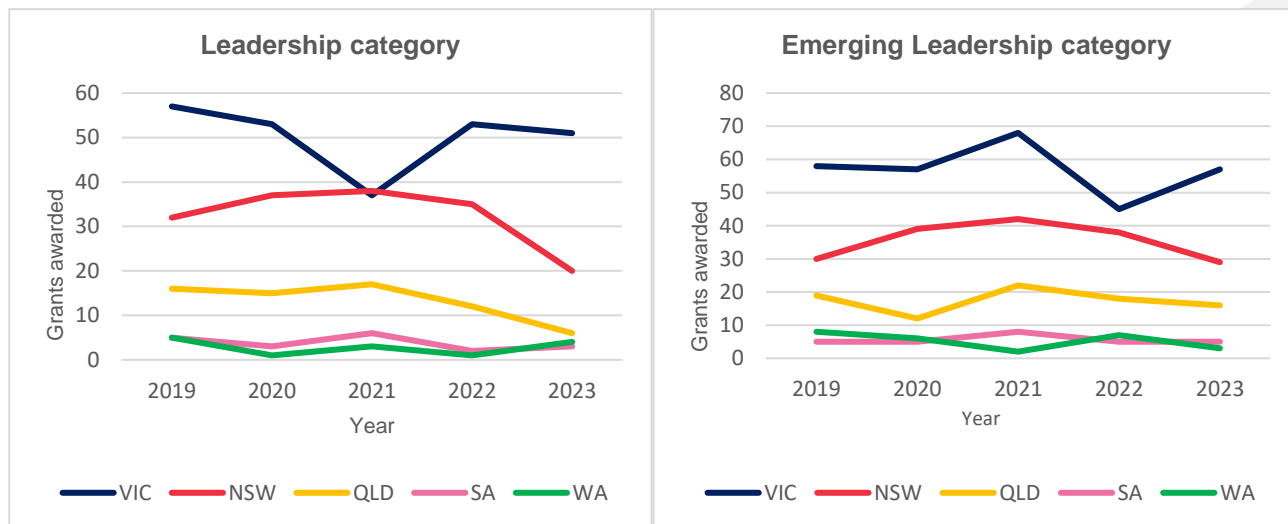


Figure 7: Number of Leadership and Emerging Leadership grants awarded by state, 2019 – 2022. Source: NHMRC

When it comes to the MRFF – where not all grant rounds are run on a competitive basis – there is no comprehensive data on funded rates by state and territory. However, several reports published by the Department of Health and Aged Care provide a snapshot.

For example, across all grants with payments commencing between 2020-22, WA’s funded rate is on par with the national success rate (**Figure 8**). However, caution should be applied to drawing conclusions from these data, as they are based on results from an eight-month period only.

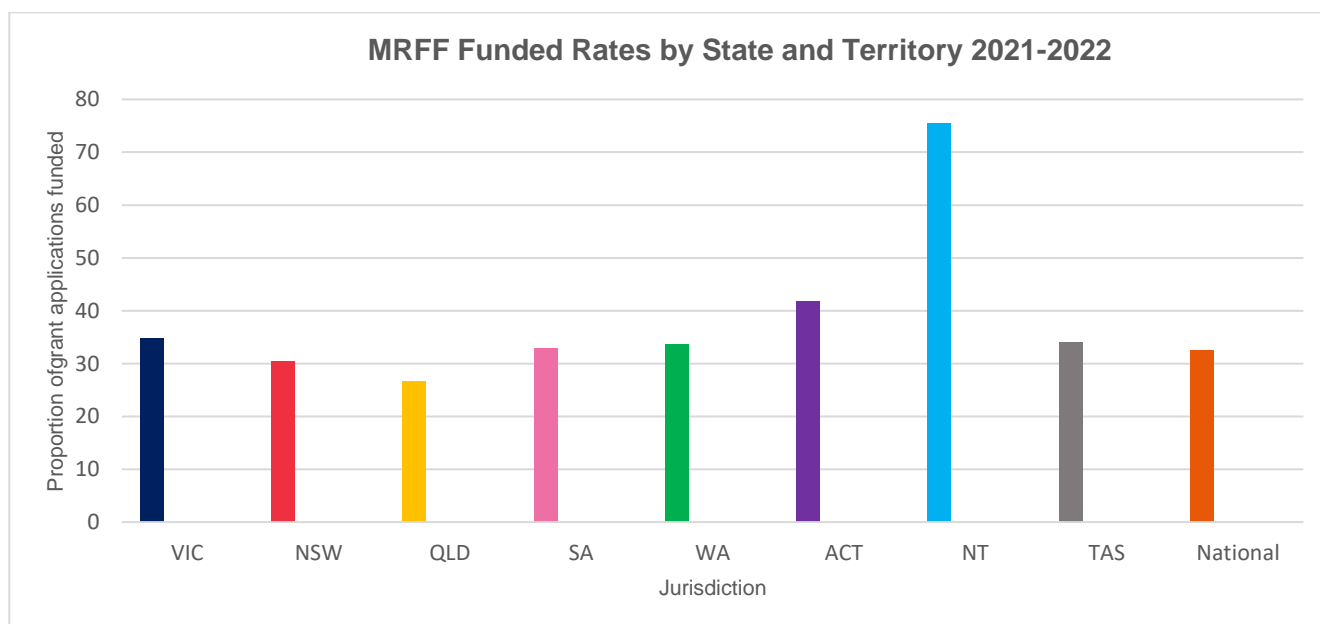


Figure 8: MRFF Funded Rates by State and Territory (based on Chief Investigator location) with payments commencing between 7 November 2021 and 31 June 2022. Source: [Department of Health and Aged Care](#)

Another snapshot, covering Early to Mid-Career Researcher grant opportunities, shows WA's funded rate fell from 14.3% in 2021 to zero in 2023 (**Table 2**).

Table 2: Early to Mid-Career Researchers grant opportunity outcomes data by states and territories (Grants have not yet been awarded in NT and TAS). Source: [Department of Health and Aged Care](#)

State	Funded rate (%)		Proportion of funding (%)	
	2023	2021	2023	2021
VIC	21.2	4.2	40	31.2
NSW	15.8	3.4	40.2	18.2
QLD	17.7	9.1	12	30.4
SA	14.3	3.9	4	4.4
WA	0	14.3	0	24.8
ACT	50	25	2.1	3.6

Is WA research sufficiently “on the radar” for key decision-making bodies?

There is a perception in WA that due to the state’s geographic isolation and the concentration of medical researchers on the East Coast, WA’s researchers are “out of sight, out of mind” for those who make decisions on competitive grants.

NHMRC data show that WA has the lowest number of peer reviewers of any mainland state (**Figure 8**).

It is not suggested that a peer reviewers’ location would compromise their impartiality - all peer reviewers must abide by NHMRC principles including fairness, transparency, independence and impartiality. Furthermore, any qualified WA researcher can self-nominate for peer review.

However, the current lack of WA peer reviewers means there may be limited profile or familiarity with WA research and researchers among the overall peer reviewer cohort.

The lack of WA peer reviewers also represents a missed training opportunity for local researchers. Undertaking peer review better equips researchers (and their teams) with the skills required to submit high-quality grant applications of their own.

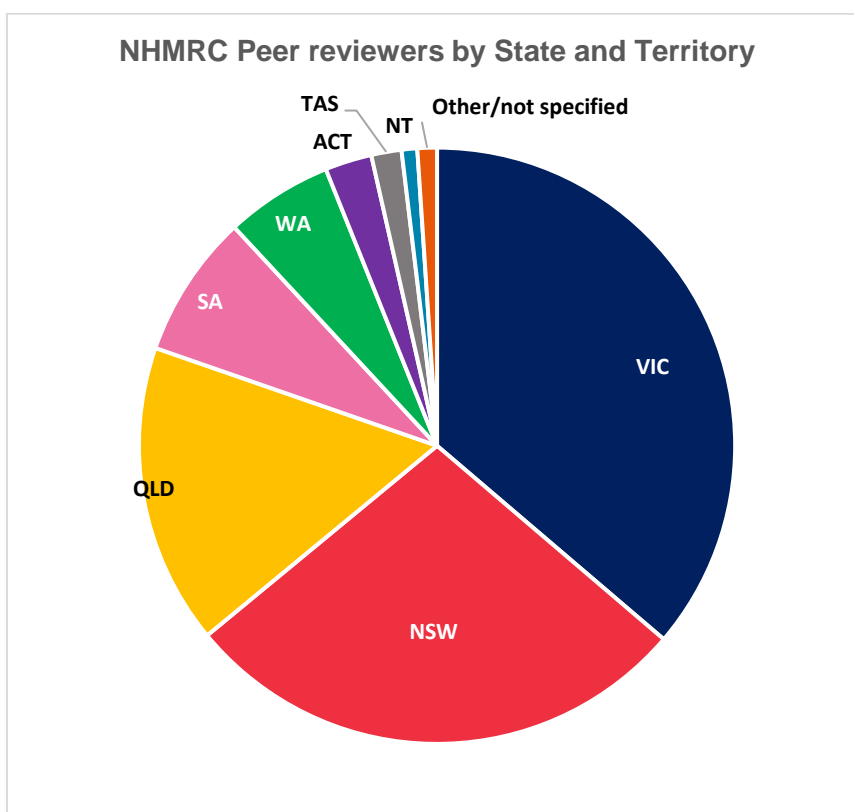


Figure 8: NHMRC Peer reviewers by State and Territory, 2022 (including panel chairs, external assessors and community observers) Source: NHMRC

Another consideration is the NHMRC Council, the legislated body that provides advice to the NHMRC Chief Executive Officer.

Western Australia and the Northern Territory are the only jurisdictions that do not have any representatives on the Council beyond those mandated by the NHMRC Act – that is, the Chief Medical Officer of each state and territory **(Figure 9)**.

In other words, WA has only one representative on the NHMRC council of 24 members – the state’s Chief Medical Officer, who is required by law to be there.

AAMRI WA notes that there may be changes the membership of NHMRC councils and committees at the end of the current triennium, which expires on 30th June 2024.

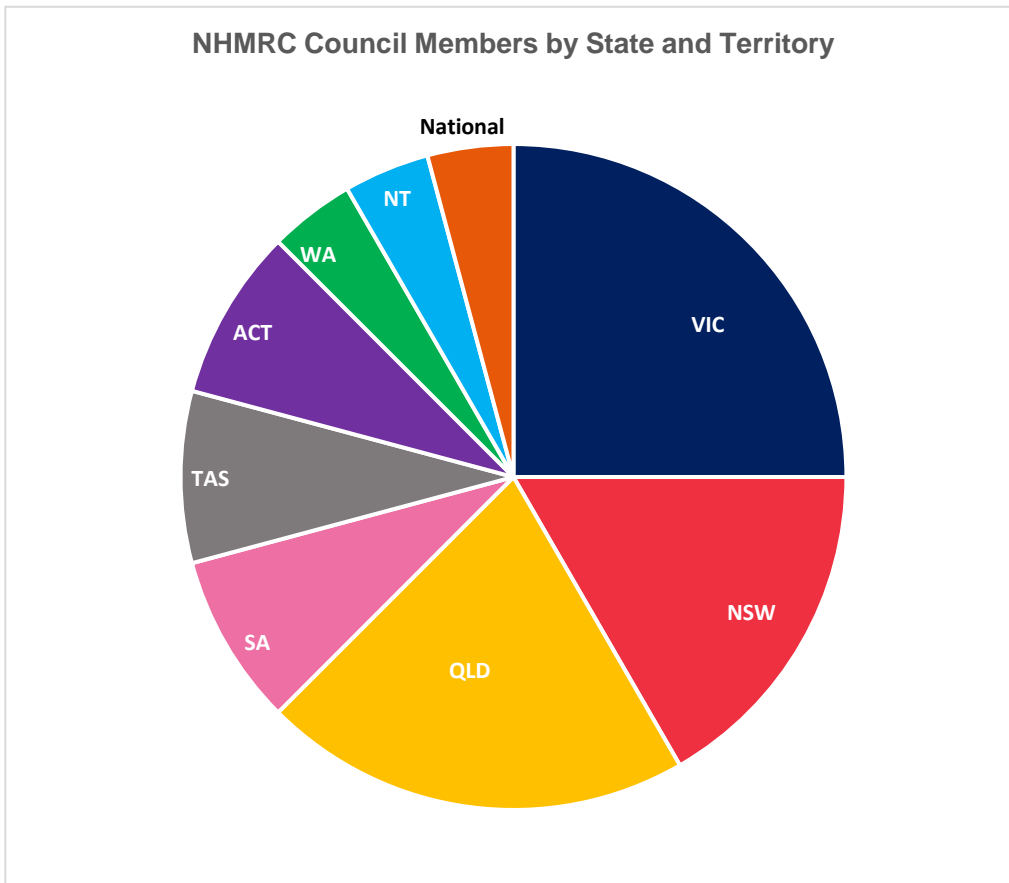


Figure 9: NHMRC Council membership by State and Territory. Source: NHMRC

Are there other factors unique to WA?

Members of WA's health and medical research sector have raised a range of other possible causes for the state's low share of competitive grant funding.

Ultimately, the likely contributing factors can broadly be categorised into four areas, namely:

- **Workforce capacity** – insufficient strategic focus on developing, retaining and attracting outstanding researchers, and fostering collaboration between them; skills gaps in key areas.
- **Profile** – insufficient national profile and connections for WA research and researchers. This is crucial, as listing high-profile collaborators on team grants boosts capacity scores and increases the likelihood of funding.
- **Policy & legislation** – some policy barriers remain to WA health and medical research and its translation and commercialisation, (eg. finalising the establishment of a centralised Human Research Ethics Committee).
- **Infrastructure** – gaps in common-user infrastructure in WA are holding back advancements in health and medical research (eg a statewide Biobanking model).

Some of these issues are currently being addressed by the WA Government, while others are the responsibility of the sector and individual research organisations to address.

It is important to note that individual initiatives aimed at lifting WA's competitive grant performance – such as local peer review of grant applications, or grant writing workshops – may have some benefit. However, in isolation, they are unlikely to “shift the dial” significantly. Instead, the development of a comprehensive Competitive Grants Strategy would ensure that any funding programs, policies or initiatives aimed at lifting WA's competitive grant performance are appropriately targeted.

Ultimately, WA's national competitive grant performance must be improved to meet the strategic objectives of WA's Health and Medical Research Strategy 2023-33¹⁴ and the priority goals of the FHRI Fund¹⁵.

RECOMMENDATIONS

- 1(a) *The WA Government, in partnership with the health and medical research sector, develops a Competitive Grants Strategy in alignment with the WA Health and Medical Research Strategy and the Future Health Research and Innovation (FHRI) Fund Strategy. This strategy would be used to inform and coordinate any policies, initiatives and funding programs aimed at improving WA's competitive grants performance.*
- 1(b) *This Strategy, and a 5-year Funding Strategy to deliver on its components, is shared with research institutions to ensure the efforts of individual organisations are aligned and complementary.*
- 1(c) *A framework is established to review and measure the effectiveness of the Strategy at appropriate intervals.*

2. How the state's health and medical research priorities are determined

Western Australia's health and medical research priorities are primarily guided by two government strategies.

The first is the [WA Health and Medical Research Strategy](#), launched in 2023. This is a high-level 10-year plan with a vision for "a collaborative consumer-driven ecosystem conducting world-leading impactful research that is translated into practice for healthier communities".

The strategy was developed in consultation with the WA health and medical research sector, including AAMRI WA.

It identifies six broad priority areas: regional and remote health, Aboriginal health, precision medicine, digital health, consumer engagement and prevention. It does not identify specific research topics where WA has a strength or competitive advantage and is not prescriptive about where state funding for health and medical research should be spent.

The second strategy is that of the FHRI Fund - the sovereign wealth fund dedicated to supporting WA health and medical research and innovation. The [FHRI Fund Strategy on a Page](#) lists eight priority goals, along with four focus areas:

- A (Aboriginal, rural and remote health)
- B (Burden of diseases)
- C (Living with COVID-19 and Long-Covid)
- M (Mental health, kept distinct to ensure parity of esteem)

Although there are some areas of overlap between the WA Health and Medical Research Strategy and the FHRI Fund Strategy, the two strategies should be better aligned to ensure greater clarity and certainty for the sector in relation to the state's health and medical research priorities.

AAMRI WA notes that the FHRI Fund is developing a new [Strategy and Priorities for 2025](#) and is "committed to ensuring alignment with relevant WA government strategies as well as Sector strengths and priorities."

RECOMMENDATION

2(a) Western Australia's health and medical research priorities are updated and clarified – considering WA's strengths and competitive advantages – through the development of the new FHRI Fund Strategy, in consultation with the sector.

2(b) The new FHRI Fund Strategy is aligned with the WA Health and Medical Research Strategy.

3. The impact on specific types of research and areas of need

AAMRI WA is not aware of any publicly available mechanism or reporting framework that tracks the impact of WA's health and medical research priorities on specific types of research or areas of need.

AAMRI WA would support the development of such reporting mechanisms, provided they consider the context of national research priorities and funding; and can offer meaningful information to assist with planning and decision-making on future priorities and funding allocations for WA health and medical research.

Conclusion

Increasing Western Australia's share of national competitive grants is just one objective in the overall vision for WA to become internationally recognised for its research, and for that research to be translated to improve health outcomes for all.¹⁶

But researchers and research institutions spend a large proportion of their time preparing applications for competitive funding – researchers' careers depend on it.

AAMRI WA believes improving WA's performance in national competitive grant schemes can only be achieved with the implementation of a strategic approach, for the benefit of the entire WA health and medical research sector.

Securing a greater share of competitive funding for WA would enable our top researchers to focus on their job: making crucial discoveries and translating them into practice to create healthier communities.

Endnotes

¹ Australian Bureau of Statistics, 2023. “National, state and territory population” <https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/dec-2022>

² Reserve Bank of Australia, 2023. “Composition of the Australian Economy” <https://www.rba.gov.au/education/resources/snapshots/economy-composition-snapshot/>

³ Australian Bureau of Statistics, 2023. “National, state and territory population” <https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/dec-2022>

⁴ Reserve Bank of Australia, 2023. “Composition of the Australian Economy” <https://www.rba.gov.au/education/resources/snapshots/economy-composition-snapshot/>

⁵ Government of Western Australia, Department of Health. 2023. *WA health and medical research strategy 2023-2033* <https://www.health.wa.gov.au/~media/Corp/Documents/Reports-and-publications/Strategies/State-Health-and-Medical-Research-Strategy.pdf> (Strategic Objective 5.5: Secure an equitable share in Commonwealth health and medical research funding)

⁶ Future Health Research and Innovation Fund. 2023. “FHRI Fund Priority Goals” <https://fhrifund.health.wa.gov.au/About-us/FHRI-Fund-Priority-Goals>

⁷ Deloitte Access Economics. 2023. *Economic value of the health and medical research sector in Western Australia*. <https://aamri.org.au/wp-content/uploads/2023/11/Deloitte-Report-Economic-value-of-the-health-and-medical-research-sector-in-Western-Australia-Dec-23.pdf>

⁸ Only 13% of MRFF grant rounds are run on an “open competitive” basis. The vast majority are offered on a “targeted or restricted competitive basis” – which means they are open to a small number of potential grantees based on the specialised requirements of the grant activity under consideration.

⁹ The MRFF was established in 2015. The Department of Health and Aged Care has published a full list of grant recipients from 2017-2024.

¹⁰ This was due to a large one-off grant of \$35m for accelerating the development of a Group A streptococcal vaccine

¹¹ Caples, A; Department of Jobs, Precincts and Regions; KPMG. 2021. “Creating a Healthy Future: The impact of Victorian Government investment in health and medical research” https://djsir.vic.gov.au/_data/assets/pdf_file/0009/1988532/Creating-a-Healthy-Future-Report.pdf

¹² Health Translation Queensland. 2022. “Health and Medical Research Funding Analysis Report” https://healthtranslationqld.org.au/funding_analysis

¹³ NHMRC, 2024. “Research Funding Statistics and Data” <https://www.nhmrc.gov.au/funding/data-research/research-funding-statistics-and-data>

¹⁴ Government of Western Australia, Department of Health. 2023. *WA health and medical research strategy 2023-2033* <https://www.health.wa.gov.au/~media/Corp/Documents/Reports-and-publications/Strategies/State-Health-and-Medical-Research-Strategy.pdf> (Strategic Objective 5.5: Secure an equitable share in Commonwealth health and medical research funding)

¹⁵ Future Health Research and Innovation Fund. 2023. “FHRI Fund Priority Goals” <https://fhrifund.health.wa.gov.au/About-us/FHRI-Fund-Priority-Goals>

¹⁶ Government of Western Australia, Department of Health. 2023. *WA health and medical research strategy 2023-2033: Minister’s Foreword* <https://www.health.wa.gov.au/~media/Corp/Documents/Reports-and-publications/Strategies/State-Health-and-Medical-Research-Strategy.pdf>