

The University of Western Australia submission – Western Australia Government support for health and medical research funding and priorities

Introduction

The University of Western Australia (UWA) is recognised internationally as a leading research-intensive university, focused on being a trusted source of open and accessible research and driving excellence through world-leading collaboration. A key area of the University's research strengths is in the health and medical sciences. UWA is ranked 85 in the 2023 QS World University Rankings, with a field weighted citation impact (FWCI) for health sciences of 2.45 (145% above the global average) and category normalised citation impact (CNCI) for health sciences of 1.8 (80% above global average). UWA continues to have the highest number of Web of Science articles per academic FTE (Full Time Equivalent) at 2.77 per annum in Australia's leading Group of 8 universities. However, UWA is concerned about the declining levels of investment in health and medical research in Western Australia (WA), particularly with respect to the overall percentage of nationally competitive grant funding received.

For instance, since 2017, the Medical Research Future Fund (MRFF) has distributed \$3,296,819,073 in funding across 1,358 awards. WA received \$162,357,344 through 75 awards, equivalent to 4.9% of MRFF funding. In contrast, the eastern states of Australia were awarded 85.1% of the MRFF funding, amounting to \$2,806,453,927.87, with the majority awarded to Victoria (44.9%), New South Wales (28.2%) and Queensland (12%).

Please find below UWA's considerations against each of the terms of reference.

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

WA has been securing reduced levels of nationally competitive grant funding for several years. Several possible factors may contribute to this, including but not limited to:

- WA's geographic isolation and the consequent difficulty for our researchers in engaging with the health and medical research ecosystem in person, due to both travel costs and time constraints;

- Reduced national visibility, worsened by the removal of review committees from the National Health and Medical Research Council (NHMRC) funding process. This change has limited opportunities for group discussion, immediate feedback, and consensus, and has led to an increase in assessors with limited expertise in relation to specific applications or WA capabilities. This shift has created significant challenges throughout the tertiary research sector across in Western Australia and across the nation.
- Lack of state-wide coordination and leadership related to state funding for infrastructure or operational costs. Australian states that have secured the majority of MRFF funding also received ongoing support from their respective state governments. For example, between 1998 and 2014 the Queensland state government made a conscious decision to invest \$5.5 billion on scientific infrastructure, projects, and skills, and leveraged an additional \$4.2 billion from various sources (e.g., the Australian Government, universities, and philanthropic donors). With approximately one quarter of the overall investment of more than \$9.7 billion into health sector, which has led to excellent health and medical research outcomes for Queensland (1). Of note, we are exceedingly grateful that the Future Health Research and Innovation Fund has, in 2024, distributed institutional funding to contribute support for infrastructure and operational costs. We are optimistic that this new program can continue, and will reduce disparities between states.

2. Determining Health and Medical Research Priorities

Health and medical research priorities in WA are determined in a non-complimentary fashion, which leads to confusion and lowered outcomes. The WA Health and Medical Research and Innovation Strategy has no funding attached, and the Future Health Research and Innovation (FHRI) grant body exists separately, with a separate strategy, informed by the FHRI Fund Advisory Council, which determines where those funds are allocated. It is unclear to research bodies and universities how those two strategies can and will intersect and what the process will be of determining an overarching strategic focus for the FHRI funds in combination with other governmental funds shaped by the State strategy.

Further, the current process of determining research priorities in WA lacks appropriate and comprehensive stakeholder engagement and transparency. Basic (fundamental) research, in particular, which is pivotal in providing the pipeline for innovations and commercialisation, is

often neglected. Each stage of the medical research pipeline needs support and should be considered in the consultation and planning process.

The lack of leadership capable of bringing together all the major medical research stakeholders to promote multi-institutional collaborations and set agreed priorities has also been a barrier to success and a lost opportunity. The West Australian Health Translation Network (WAHTN) will have a role to play here, provided all relevant parties are willing to partner enthusiastically in the network. Historically WAHTN has had strongest support from the higher education sector and to lesser extent from Medical Research Institutes. However, the engagement of Health Service Providers, where a significant amount of patient-related and translational research takes place, is critical to create the collaboration, multidisciplinary, consumer engagement and scale that is essential for the most impactful health research.

3. Impact on Research and Areas of Need

The Australian Society for Medical Research (ASMR) has repeatedly shown that for every \$1 invested in health and medical research projects and people returns \$3.20 in economic, health and social benefits, including wellbeing gains, commercialisation and avoided healthcare costs (2, 3). Failing to appropriately fund health and medical research in WA will negatively impact long term health and wellbeing outcomes for the State's population, and the rest of the country.

Areas of Need:

Whilst there are many areas of need, consultations with UWA health and medical researchers identified some specific priorities including: public health, primary care, qualitative research, health economics, cohort studies, infectious diseases, and cardiovascular disease.

Supporting Western Australian medical researchers

One major consequence of underfunding in the sector is loss of jobs and talent, which diminishes the State's contribution to community health. Additionally, there is likely a significant loss in return on investment, particularly where there is a failure to commercialise biomedical discoveries, or to keep spin-out companies generated from WA discoveries in our state. Western Australia hosts the largest health and medical research and teaching centre in the Southern hemisphere, the QEII Medical Centre. This presents an opportunity to establish the QEII Medical & Health Research Precinct as an internationally recognised centre of

excellence and life-science hub, where cutting-edge medical/biomedical research, innovation, translation, teaching, and healthcare delivery are integrated. Strategic investment from the State government in medical research is needed. Such Investment would attract new research leaders to WA, sustain growing research teams, leverage research to solve our most pressing health challenges, and upgrade facilities to ensure that laboratories and collaborative spaces on the older sections of the QEII site meet modern standards. There is an immediate opportunity to solidify WA's globally connected position in health and medical research and improve health outcomes for all Western Australians.

The importance of prioritising the foundations of medical research

There is a skewed emphasis on tertiary clinical research, meaning that areas such as public health, basic (fundamental) biomedical research, general practice or qualitative research are extremely hard to fund. Research needs in these areas are not currently being adequately met either by national funding schemes such as MRFF and NHMRC, nor by the current WA health and medical research funding and priorities. UWA would like to see other areas be prioritised, such as primary care research, to improve infrastructure and resources, particularly in support of clinical trials within primary care and in the community. Specific funding should be allocated for the translation of clinical findings that prove to be of benefit to the WA population to ensure speedier provision of evidence-based care to the WA population. Additionally, UWA has a strong track record of translating research knowledge to real world solutions, with several active biotech spin out companies, including OncoRes, Argenica Therapeutics, Orthocell, Dimerix, Setonix Pharmaceuticals, Cytopenix and CoraMetix. Continuing to train WA health and medical researchers to identify and commercialise breakthrough technologies is a high priority.

Support for operational / indirect research costs

National competitive funding is not readily available for the operational costs of cohort studies, despite their importance as research enabling platforms. UWA has some excellent examples of cohort studies, such as the Raine Study, which offers unparalleled evidence about population health, life course development and intergenerational transfer of risk and resilience to health issues. This information will be impossible to develop if cohort studies are not supported in a coordinated manner at the state and national level and significantly limits the capacity for WA

universities and medical research institutes to create new knowledge that can then be translated into evidence-based practice and policy.

Return on Investment (example)

The Western Australian Cardiovascular Research Alliance has highlighted the severe consequences of insufficient funding for health and medical research in WA. For instance, cardiovascular disease (CVD), which is the leading cause of death in WA and a looming health crisis, incurs \$1 billion in healthcare expenditure per year. CVD claims the lives of ten Western Australians each day, which is double the deaths from colorectal cancer and seven times more than liver disease. Investment for cardiovascular research yields the highest return, with an estimated \$9.80 in health benefits for every dollar spent. Recognising this, some Australian state governments such as NSW have provided substantial support for the sector (\$150 million between 2018-2028). Analysis of nationally competitive funding rates demonstrates that between 2020-2022 only 9.2% NHMRC grants were awarded to WA, compared to the national average of 13.7%. Similarly, WA Heart Foundation grant success rates are 9.4%, compared to the national average of 13.1%. These findings underscore a significant capacity gap in cardiovascular research in WA due to a diminishing workforce, emphasising the urgent need for targeted measures to address and improve the state's competitiveness in securing vital research funding in this critical field.

In summary, UWA would like to work constructively with the WA government to:

- Strengthen WA's reputation as an internationally recognised leading medical and health research destination.
- Facilitate the establishment of a QEII health and medical research and innovation precinct.
- Improve communication and engagement (between and within) the WA government and HMR institutions when determining health and medical research priorities.
- Develop/promote effective leadership structures capable of bringing together all the major medical research stakeholders to promote multi-institutional collaborations.
- Identify strategies that support the development and retention of WA health and medical researchers that maximise competitive grant returns to WA.

- Broaden funding consideration to include each stage of the medical research pipeline to support infrastructure, clinical translation, and commercial development of WA HMR discoveries.
- Build and sustain capacity in key areas including infectious diseases, health economics, rural and remote health,
- Recognise that failure to appropriately support health and medical research in WA has significant negative outcomes for the State's population.

Thank you for considering UWA's submission. The University welcomes inquiries from the Committee on any of the statements included in this submission or related matters. Please contact dvcr@uwa.edu.au for any further information, inquiries, or further engagement.

References.

1. Queensland Government Research and Development Expenditure Report 2013-14 (https://www.chiefscientist.qld.gov.au/data/assets/pdf_file/0021/49800/rd-expenditure2013-14.pdf).
2. Deloitte Access Economics. Australia's health and medical research workforce: expert people providing exceptional returns, 2016 (<https://asmr.org.au/wp-content/uploads/library/DAEWorkforce%20report%20final%2019%20Oct2016.pdf>).
3. Deloitte Access Economics. Extrapolated returns from investment in medical research future fund (MRFF), 2014 (https://asmr.org.au/wp-content/uploads/library/ASMR%20Deloittee%20Report_MRFF.pdf).