



Medical Research Future Fund: Strategies and Priorities consultation

Response from Women's Health Victoria

October 2021

Introduction

Women's Health Victoria welcomed the opportunity to provide feedback to the [Medical Research Future Fund Australian Medical Research and Innovation Strategy and Priorities consultation](#) in October 2021.

The consultation was an opportunity to ensure that an updated Strategy will meet its purpose as described in the Medical Research Future Fund (MRFF) Act, accounting for critical current and future issues and factors (e.g. primary prevention), and continue to allow the MRFF to fund research to address national health priorities and deliver practical benefits from medical research and medical innovation to Australians.

Note: This submission was originally made as a response to an online survey.

Section 1: MRFF Strategy

1. Could the current [Strategy](#) be altered to better meet the purpose set out in the MRFF Act? If so, how?

In order to truly improve the health and wellbeing of Australians, medical research must urgently address research knowledge gaps around the health of women and girls.

Though women and girls comprise 50% of the Australian population, most health and physiological research is conducted in males (even preclinical trials). This means that we know much less about women's health than we do men's.¹

Ensuring that medical research incorporates sex and gender into research design, analysis and translation will improve our understanding of the specific needs of women and girls and what works to address these needs, leading to improved health system responses and health outcomes for women and girls.

The MRFF Strategy should be altered to include as an objective 'Address sex and gender bias in medical research and research translation by requiring sex and gender to be incorporated into research design, data analysis and research translation, as a condition of funding.' Research that addresses sex and gender will improve health outcomes not only for women, but for men, trans and gender-diverse people.

2. What are the most critical current and future issues and factors impacting on the health system, including primary prevention, and on the health and medical research sector that the next Strategy needs to address?

Ignoring sex and gender differences in medical research can compromise accuracy and put patients at risk.²

Sex and gender differences in risk factors, incidence, recognition, response to treatment and recovery are being uncovered for many major diseases (such as cardiovascular disease, cancers and

¹ [Sex and gender in health research: updating policy to reflect evidence](#) Medical Journal Australia, 2020

² [Sex and gender in health research: Australia lags behind](#) Medical Journal Australia, 2020

COVID-19). However, historically data has been collected from men and generalised to women. Research shows that this approach fails to account for the differences in the way men and women experience common diseases and respond to therapies and can result in inappropriate treatment and poorer quality of care.³

Australia lags behind other countries in incorporating policies and practices requiring sex and gender analysis in grant funding.⁴ For example, the European Commission requires grant applicants to incorporate sex and gender analysis into the design of research studies.

Accounting for sex and gender in medical research makes for better science, improves safety and quality of care, and reduces healthcare costs and unnecessary or ineffective tests and treatments.⁵

3. Suggest options for how the next Strategy could address these critical issues and factors?

The MRFF Strategy should be altered to include the objective: 'Address sex and gender bias in medical research and research translation by requiring sex and gender to be incorporated into research design, data analysis and research translation, as a condition of funding.'

This means stipulating that research funded by the MRFF must have an equitable number of male and female research participants (unless there is a good reason not to), include trans and gender-diverse participants where possible, and that all data must be analysed by sex and gender and reported on to improve knowledge gaps.

Mandating the incorporation of sex and gender dimensions in health research will increase our understanding of social and biological risk factors for health conditions and how to address them – supporting better targeting of prevention initiatives - and reduce the potential harms of poorly targeted treatments for women, men and gender-diverse people.

4. Given the new and significant impact of COVID-19 on health services and health research, how should the new Strategy address COVID-19 related topics and impacts?

COVID-19 is the latest example of a disease that affects men and women differently (more women are infected, yet more men dying as a result).⁶ Long COVID appears to be more common in women compared to men (by a ratio of 4:1), a pattern also seen in other post-infectious syndromes. Research into Long COVID and its effect on the immune system in men and women may also add to the evidence base on other under-researched autoimmune diseases, from which women disproportionately suffer.⁷

Including the objective, 'Address sex and gender bias in medical research and research translation by requiring sex and gender to be incorporated into research design, data analysis and research translation' as an objective in the MRFF Strategy would ensure that MRFF-funded studies are making a well-rounded and nuanced contribution to the global understanding of COVID-19, as well as leading the way in addressing international research gaps.

³ [Sex and gender in health research: updating policy to reflect evidence](#) Medical Journal Australia, 2020

⁴ [Sex and gender in health research: Australia lags behind](#) Medical Journal Australia, 2020

⁵ [Pre-Budget Submission 2021–22 Building Back Better: Investing in Five Medical Research Ideas](#), George Institute for Global Health, 2021.

⁶ [Sex and gender differences in medical research impact patients and the economy](#), University of New South Wales, 2020

⁷ [Why are women more prone to long Covid?](#) The Guardian 13/06/21

Section 2: MRFF Priorities

The MRFF Act specifies that AMRAB must determine Priorities for providing financial assistance for medical research and medical innovation. The Priorities must be consistent with the Strategy that is in force. In determining the Priorities, the AMRAB must take into account the following:

- a) the burden of disease on the Australian community;
- b) how to deliver practical benefits from medical research and medical innovation to as many Australians as possible;
- c) how to ensure that financial assistance provided under this Act provides the greatest value for all Australians;
- d) how to ensure that financial assistance provided under this Act complements and enhances other financial assistance provided for medical research and medical innovation;
- e) any other relevant matter.

With that in mind:

1. Could the current Priorities be improved to better address the requirements under [the MRFF Act](#)? If so, how? This could include consideration of what elements of the Priorities work well to guide MRFF investments and what could be improved for research translation and impact?

Australia urgently needs to fund research to redress the data and knowledge gaps formed by decades of sex and gender bias in medical research. Improving understanding of sex and gender in medical research is essential to improving the quality and quantity of data that can help us describe sex and gender differences and develop an appropriate evidence-based response. This will improve how we understand and treat health conditions in women and gender-diverse people.

The MRFF does not currently have any sex-and gender-specific priorities or policies on research integration and funding requirements,⁸ which contributes to a lack of research, data and knowledge about women's health and how to effectively treat and prevent diseases.

The current Priorities could be improved to include 'Address sex and gender bias in medical research by requiring sex and gender to be incorporated into research design, data analysis and research translation.'

2. What are the most critical current and future issues for the health system and the health and medical research sector that the next Priorities need to address through research translation/implementation?

Sex differences impact epigenetics, physiology, the way some diseases present and drug metabolism. They have major consequences for the way diseases are treated and medication prescribed.⁹

There is considerable evidence of women being undertreated or presenting disease in a different way from men. Many medications also react differently due to variations in physiology. However, not enough is being done to understand these differences, which is a critical first step in creating evidence-based policies, training and other interventions that improve recognition of sex differences and reduce gendered health inequities.¹⁰ Relying on

⁸ [Sex and gender in health research: updating policy to reflect evidence](#) Medical Journal Australia, 2020

⁹ [Why are males still the default subjects in medical research?](#) The Conversation 04/10/21

¹⁰ [Women's health and sex inequalities](#), George Institute for Global Health, 2020

evidence that has been generated only from men can lead to false assumptions about how women experience disease, and poorer outcomes from treatment.

Australian medical research has fallen behind North America, Canada and Europe in recognising sex and gender as key determinants of health and their importance for health research and improved health outcomes.¹¹ The US National Institutes of Health include a policy requiring researchers to consider 'sex as a biological variable,'¹² however no such policy exists in Australia.

3. Suggest options for how the next Priorities could address these critical issues?

The MRFF should update policies and practices to stipulate sex- and gender disaggregated data collection, analysis and reporting in the research they fund. The current Priorities could be improved to include 'Address sex and gender bias in medical research.'

Wainer, Carcel et al from the Sex and Gender Sensitive Research Call to Action Group recommend that the MRFF do the following:

- *Promulgate the development of policies and practices, requiring consideration be given to the inclusion of sex and gender analysis, or demonstrate why it is not required, and guidelines to address the implementation of sex- and gender-specific clinical care and health promotion and prevention*
- *...Make funding available to train researchers and clinicians in how to undertake research that includes comprehensive sex and gender analyses¹³*

Grants should be increased to accommodate the cost of comprehensive research incorporating people of all genders.

Incorporating these policy and practice recommendations across the medical research sector will lead to better science, more reliable and reproducible research findings, better care, and contribute to achieving true gender equity in health outcomes into the future.

4. Given the new and significant impact of COVID-19 on health services and health research, how should the new priorities address COVID-19 related topics?

The gendered impacts of COVID-19 have not been adequately addressed in policies and public health efforts for affected patients, vulnerable women and health workers. The disproportionate rates of Long COVID in women compared to men must also be addressed in medical research. The Australian Human Rights Institute and The George Institute for Global Health are currently investigating this and Women's Health Victoria recommends that you consult with them further. High vaccine hesitancy rates among reproductive-age women can be partially attributed to women being historically excluded from medical research, and more recently from initial COVID vaccine trials. The resultant lack of information about the effect that a vaccine will have on women (or their baby) leads to a loss of trust in medical research, creating a vacuum that can be filled by misinformation. Ensuring that women are included in medical research from the initial study design is essential to building trust.

¹¹ [Sex and gender in health research: updating policy to reflect evidence](#) Medical Journal Australia, 2020

¹² [Policy: NIH to balance sex in cell and animal studies](#), Nature 2014

¹³ [Sex and gender in health research: updating policy to reflect evidence](#) Medical Journal Australia, 2020