



Supporting Information

Supplementary methods and results

**This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.**

Appendix to: Carcel C, Vassallo A, Hallam L, et al. Policies on the collection, analysis, and reporting of sex and gender in Australian health and medical research: a mixed methods study. *Med J Aust* 2024; doi: 10.5694/mja2.52435.

Table 1. Policies and practices on the collection, analysis and reporting of sex and gender data in health and medical research: survey questions [following pages]

A) POLICY EXISTENCE AND CONTENT

1. MANDATORY QUESTION Does your organisation have a **policy, procedure, statement or guideline** in place for defining, collecting, analysing and/or reporting sex and gender data in health and medical research? YES/NO

(This might include a specific dedicated document, or may be a section within another document such as a research code of conduct or guideline for ethical research conduct. **Please note there is no expectation for all organisations to have their own policy. If your organisation does not have a policy, or is not actively conducting research, we are still interested in your views on the role these policies may play in promoting equitable research practice, funding, standards in training and/or clinical guidelines and care)**

If YES -> go to question 2

If NO -> go to question 9

2. When was it first established? _____
- In the last 2 years
 - 3-5 years ago
 - More than 5 years ago
 - I don't know
3. Why was the **policy, procedure, statement or guideline** established? (tick all that apply)
- It was the right thing to do
 - It makes for better science
 - It facilitates equal health outcomes
 - To follow international progress
 - It was an organisational led priority
 - It was driven by an internal champion
 - To be seen as a national/international leader in this field
 - Involvement in the George Institute for Global Health's previous call to action on this topic
 - Not sure
 - Other, please state _____
4. Is your policy, procedure, statement or guideline publicly accessible? YES/NO
Please share the link _____

If YES -> go to question 8

If NO -> go to question 5

5. If your policy, procedure, statement or guideline is not available on a website, are you able to share a copy with us for the purposes of this research only YES/NO

Please share your document by dropping it here:

(If your file is larger than 4.5MB please email AVassallo@georgeinstitute.org.au including your organisation name. Your email address will not be stored, and your email will be deleted once the document has been saved)

If YES -> go to question 8

If NO -> go to question 6

6. What is the title of the document? _____

7. Does your policy, procedure, statement or guideline contain the following elements?:

Does your policy, procedure, statement or guideline contain:

Funder	Y/N	Research creators/trainer	Y/N	Journal	Y/N	User of research	Y/N	Society/peak group	Y/N
Definition for sex?		Definition for sex?		Definition for sex?		Definition for sex?		Definition for sex?	
Please provide the definition		Please provide the definition		Please provide the definition		Please provide the definition		Please provide the definition	
Definition for gender?		Definition for gender?		Definition for gender?		Definition for gender?		Definition for gender?	
Please provide the definition		Please provide the definition		Please provide the definition		Please provide the definition		Please provide the definition	
Recognition of trans and gender diverse people		Recognition of trans and gender diverse people		Recognition of trans and gender diverse people		Recognition of trans and gender diverse people		Recognition of trans and gender diverse people	
Recognition of people with intersex variations/differences of sex development		Recognition of people with intersex variations/differences of sex development		Recognition of people with intersex variations/differences of sex development		Recognition of people with intersex variations/differences of sex development		Recognition of people with intersex variations/differences of sex development	
References to other social and demographic factors which may contribute to differences in disease outcomes (for example income, education, ethnicity)		References to other social and demographic factors which may contribute to differences in disease outcomes (for example income, education, ethnicity)		References to other social and demographic factors which may contribute to differences in disease outcomes (for example income, education, ethnicity)		References to other social and demographic factors which may contribute to differences in disease outcomes (for example income, education, ethnicity)		References to other social and demographic factors which may contribute to differences in disease outcomes (for example income, education, ethnicity)	

Requirement or recommendation to consider sex and/or gender at the research design stage?		Requirement or recommendation to consider sex and/or gender at the research design stage?		Requirement or recommendation to consider sex and/or gender at the research design stage?		Requirement or recommendation to consider sex and/or gender at the research design stage?		Requirement or recommendation to consider sex and/or gender at the research design stage?	
Requirement or recommendation to consider sex and/or gender at the research reporting stage?		Requirement or recommendation to consider sex and/or gender at the research reporting stage?		Requirement or recommendation to consider sex and/or gender at the research reporting stage?		Requirement or recommendation to consider sex and/or gender at the research reporting stage?		Requirement or recommendation to consider sex and/or gender at the research reporting stage?	
Is there a requirement to justify the lack of sex and/or gender considerations, if such consideration has not been included?		Is there a requirement to justify the lack of sex and/or gender considerations, if such consideration has not been included?		Is there a requirement to justify the lack of sex and/or gender considerations, if such consideration has not been included?		Is there a requirement to justify the lack of sex and/or gender considerations, if such consideration has not been included?		Is there a requirement to justify the lack of sex and/or gender considerations, if such consideration has not been included?	
How do you seek to obtain grant applications that consider sex and/or gender? Please tick one	As an organisation how do you seek to conduct research that considers sex and/or gender? Please tick one		How do you seek to obtain/publish research manuscripts that consider sex and/or gender? Please tick one		How do you seek to review and assess research data in a way that considers sex and/or gender? Please tick one		How do you seek to advocate for research that considers sex and/or gender? Please tick one		

<p><input type="checkbox"/> By requiring they consider and/or assess the inclusion of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration and/or assessment of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>	<p><input type="checkbox"/> By requiring the consideration of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>	<p><input type="checkbox"/> By requiring they consider the inclusion of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>	<p><input type="checkbox"/> By requiring the consideration of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>	<p><input type="checkbox"/> By requiring the consideration of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>
<p>How are grant reviewers advised to consider and/or assess the inclusion of sex and/or gender considerations in research proposals? Please tick one</p> <p><input type="checkbox"/> By requiring this</p> <p><input type="checkbox"/> By encouraging this</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>		<p>How are manuscript reviewers advised to consider and/or assess the inclusion of sex and/or gender considerations in submitted manuscripts. Please tick one</p> <p><input type="checkbox"/> By requiring they consider the inclusion of sex and/or gender</p> <p><input type="checkbox"/> By encouraging the consideration of sex and/or gender</p> <p><input type="checkbox"/> In some other way. Please state _____</p> <p><input type="checkbox"/> Not at all</p>		

Survey continues below

8. Is there anything else you would like to tell us about your policy, procedure, statement or guideline/s? _____

OPTION TO ADD ANOTHER POLICY DOCUMENT IF NEEDED

GO TO SECTION B

9. Does your organisation have any plans to develop a policy, procedure, statement or guideline for defining, collecting, analysing and/or reporting sex and gender data in health and medical research in the near future? YES/NO

If YES -> go to question 10

If NO -> got to question 11

10. When do you expect to develop and/or implement a policy, procedure, statement or guideline for your organisation? In the next:
- 3 months,
 - 6 months,
 - 12 month,
 - 18 month,
 - 24 month or more

GO TO SECTION B

11. What is the reason for **not** developing such a policy, procedure, statement or guideline? (please tick all that apply, some options ask for further information, please provide them in the comment section)
- These documents are not relevant to our research content area
Please explain why: _____
 - A dedicated document is not needed as other external guidelines exist instead
Please provide more information, or link to documents: _____
 - The statistical power required to perform detailed disaggregated analysis
 - We do not have the internal capacity to develop one
 - We are currently planning and discussing this issue
 - We do not believe sex and gender should be looked at in isolation
 - This is not considered an important issue for our organisation
 - Other, please describe _____

GO TO SECTION B

B) TRANSLATING POLICIES INTO ACTION

12. Does your organisation promote or recommend any external resources to support support inclusion of sex and/or gender considerations in your area of work? Y/N/Unsure

(Click for more info - For example the "[How to integrate sex and gender into research](#)" resources from the Canadian Institute of Health Research)

If yes, please include relevant links or details of the external resources here:

13. Does your organisation provide, list, endorse or support any training or training materials (in house or external) about sex and gender in health and medical research practice? Y/N/Unsure

(click for more info - For example, training on inclusion delivered by HR departments or training on how to conduct a sex-disaggregated analysis)

If yes please tick all that apply

- HR training
- Medical research practice training (eg sex-disaggregated statistical analysis training)
- Sex and gender concepts training
- Other

Please provide more details: _____

14. At an organisation level is any training about sex and/or gender **recommended** for:
(if your organisation has no relevant people please tick N/A)

- People internal to your organisation Y/N/NA
- People external to your organisation who interact with you Y/N/NA

15. At an organisation level is any training about sex and/or gender **required** for:
(if your organisation has no relevant people please tick N/A)

- People internal to your organisation Y/N/NA
- People external to your organisation who interact with you Y/N/NA

FUNDERS ONLY

16. Are grant applications to your funding schemes given weight (or marked) in relation to the consideration of sex and gender and the proposed inclusion of sex and/or gender analyses? Y/N
17. Does your organisation evaluate or collect data on the **number and proportion** of grant applications that include sex and/or gender analyses? Y/N
18. Do you evaluate or collect data on the number and proportion of **peer-reviewed publications arising from your grants** that incorporate sex and/or gender analysis?

JOURNALS ONLY

18. Does your journal evaluate or collect data on **the number and proportion** of manuscripts you publish that include sex and/or gender analysis? Y/N

ALL PARTICIPANTS CONTINUE FROM HERE

FOR THOSE WHO ANSWERED **NO** TO QUESTION 1 (THEY **DO NOT HAVE A POLICY, PROCEDURE, STATEMENT OR GUIDELINE IN PLACE**)

19. MANDATORY QUESTION Which of the following are **barriers** to the development and implementation of a sex and gender policy, procedure or guideline in your organisation, or in an organisation similar to yours? (tick all that apply):
- These policies are not relevant to our research content area, or we are not convinced this is an issue for our research
 - Our work is limited by the research evidence that is collected by others, so this is not relevant
 - Lack of expertise in policy development
 - Lack of content expertise in definitions, mechanisms, design, analysis and reporting of sex and gender
 - Increased cost for conducting disaggregated analysis as larger studies are needed
 - Lack of local examples of successful policies
 - These policies are thought to be too prescriptive
 - These policies promote an approach that is not hypothesis driven
 - We do not want to promote the consideration of sex and gender in isolation
 - External guidelines already exist (such as ICMJE guidelines) so additional ones are not required
 - Lack of leadership and institutional buy in
 - Informatics and/or other system adaptations are required to implement these policies
 - Linguistic and definitional challenges associated with sex and gender
 - Conflicting frameworks across disciplines
 - Complexity of the field and related fear of doing the wrong thing
 - Lack of up to date evidence of why this is important

- Gender bias
- Limitations of current research methods (recruitment, small sample sizes, extrapolating effectiveness from efficacy)
- None of the above
- Others _____

Please explain any of your answers

20. MANDATORY QUESTION which if the following may **facilitate** the development and implementation of a sex and gender policy, procedure, statement or guidelines in your organisation, or an organisation similar to yours (tick all that apply)

- Training and support in policy development and evaluation
- Training and support in definitions, mechanisms, design, analysis and reporting of sex and gender
- Greater awareness or understanding of the rationale for sex and gender incorporation
- Provision of additional funding to increase study sample sizes
- Awards, recognition or other incentives
- Significant Australian organisations leading by example
- Significant international organisations leading by example
- Integrating the analysis of sex and gender with other issues, such as ethnicity
- Local individual champions
- Supporting cultural shift in research practice
- Development and use of standards and consistent tools (such as ABS Standard for sex and gender)
- Regulation or enforcement of policy requirements
- Supporting infrastructure changes
- None of the above
- Other _____

Please explain any of your answers

FOR THOSE WHO ANSWERED YES TO QUESTION 1 (THEY HAVE A POLICY, PROCEDURE, STATEMENT OR GUIDELINE IN PLACE)

21. MANDATORY QUESTION which of the following **facilitated or enabled** the development and implementation of your sex and gender policy, procedure, statement or guidelines in your organisation (tick as many as apply):

- Training and support in policy development and evaluation
- Training and support in definitions, mechanisms, design, analysis and reporting of sex and gender
- Greater awareness or understanding of the rationale for sex and gender incorporation
- Provision of additional funding to increase study sample sizes
- Awards, recognition or other incentives
- Significant Australian organisations leading by example

- Significant international organisations leading by example
- Integrating the analysis of sex and gender with other issues, such as ethnicity
- Local individual champions
- Supporting cultural shift in research practice
- Development and use of standards and consistent tools (such as ABS Standard for sex and gender)
- Regulation or enforcement of policy requirements
- Supporting infrastructure changes
- Other _____

Please explain any of your answers

22. MANDATORY QUESTION Which of the following were **barriers** to the development and implementation of your sex and gender policy, procedure or guideline? (tick all that apply):

- These policies are not relevant to our research content area, or we are not convinced this is an issue for our research
- Our work is limited by the research evidence that is collected by others, so this is not relevant
- Lack of expertise in policy development
- Lack of content expertise in definitions, mechanisms, design, analysis and reporting of sex and gender
- Increased cost for conducting disaggregated analysis as larger studies are needed
- Lack of local examples of successful policies
- These policies are thought to be too prescriptive
- These policies promote an approach that is not hypothesis driven
- We do not want to promote the consideration of sex and gender in isolation
- External guidelines already exist (such as ICMJE guidelines) so additional ones are not required
- Lack of leadership and institutional buy in
- Informatics and/or other system adaptations are required to implement these policies
- Linguistic and definitional challenges associated with sex and gender
- Conflicting frameworks across disciplines
- Complexity of the field and related fear of doing the wrong thing
- Lack of up to date evidence of why this is important
- Gender bias
- Limitations of current research methods (recruitment, small sample sizes, extrapolating effectiveness from efficacy)
- None of the above
- Others _____

Please explain any of your answers

END

Table 2. Stakeholder organisations identified during the planning phase

Research Funders	Peer-reviewed Journals	Researcher creators and educators	Evidence synthesisers	Research advocates, peak bodies and societies
National Health and Medical Research Council (NHMRC)	Journal of Gastroenterology and Hepatology	University of Melbourne	NPS MedicineWise	Australian Society for Medical Research (ASMR)
National Heart Foundation	Medical Journal of Australia (MJA)	Australian National University	Sax Institute	Association of Australian Medical Research Institutes (AAMRI)
Cancer Council (NSW)	Clinical and Experimental Pharmacology and Physiology	The University of Sydney	EviQ, Cancer Institute NSW	Public Health Association of Australia (PHAA)
Medical Research Future Fund (MRFF)	Immunology and Cell Biology	The University of Queensland	Health Resourcing at Department of Health	Research Australia
Office for Health and Medical Research, NSW Government	Australian and New Zealand Journal of Psychiatry	The University of Western Australia	Australian Institute of Health and Welfare (AIHW)	Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)
Department of Health, Victorian Government	Journal of Paediatrics and Child Health	The University of Adelaide	Therapeutic Goods Administration (TGA)	Australian Healthcare and Hospitals Association (AHHA)
Diabetes Australia	Australian and New Zealand Journal of Public Health	Monash University	JBI (Joanna Briggs Institute)	Australian Medical Association (AMA)
Leukaemia Foundation	Respirology	UNSW Sydney	Cochrane Australia	Royal Australasian College of Physicians (RACP)
Australian Research Council	ANZ Journal of Surgery	Walter and Eliza Hall Institute of Medical Research (WEHI)	Grattan Institute	Royal Australian College of General Practitioners (RACGP)
Cancer Australia	Clinical and Experimental Ophthalmology	The George Institute for Global Health Australia	Australian Commission on Safety and Quality in Healthcare (ACSQHC)	Royal Australasian College of Surgeons (RACS)
		QIMR Berghofer		Australian Medical Students' Association (AMSA)
		Lowitja Institute		Allied Health Professions Australia (AHPA)
		Medtronic		Australian College of Nursing
		Sanofi		LGBTIQ+ Health Australia
		Eli Lilly		Women's Health Victoria
				Jean Hailes
				Australian Clinical Trials Alliance (ACTA)
				Consumers Health Forum of Australia
				Medicines Australia
				ACON

Table 3. Resources about sex and gender used by Australian health and medical research organisations

Resource referenced by Australian organisation	Local or international	Link
ABS Standard for Sex, Gender, Variations of Sex Characteristics and Sexual Orientation (3 organisations)	Local	https://www.abs.gov.au/statistics/standards/standard-sex-gender-variations-sex-characteristics-and-sexual-orientation-variables/latest-release
PROGRESS-Plus	International	https://methods.cochrane.org/equity/projects/evidence-equity/progress-plus
WHO Handbook for Guideline Development: Chapter 5. Incorporating equity, human rights, gender & social determinants into guidelines	International	https://www.who.int/gender-equity-rights/understanding/grc-chapter5.pdf
ARRIVE guidelines (Animal Research: Reporting of In Vivo Experiments)	International	https://arriveguidelines.org/
Science in Australia Gender Equity (SAGE)	Local	https://www.sciencegenderequity.org.au/
Canadian Institutes of Health Research Sex and Gender in Health Research	International	https://cihr-irsc.gc.ca/e/50833.html
Gendered Innovations	International	https://genderedinnovations.stanford.edu/
National Institutes of Health Sex and Gender webpage	International	https://orwh.od.nih.gov/sex-gender
Charite Institute of Gender in Medicine	International	https://gender.charite.de/en/
Australian Government Guidelines on the Recognition of Sex and Gender	Local	https://www.ag.gov.au/rights-and-protections/publications/australian-government-guidelines-recognition-sex-and-gender
Nursing Leadership in Diversity and Inclusion - Guiding Principles	Local	https://www.acn.edu.au/wp-content/uploads/guiding-principles-nursing-leadership-in-diversity-and-inclusion.pdf
Transhub resources for researchers	Local	https://www.transhub.org.au/allies/researchers
ACON discussion paper effective and meaningful inclusion of trans and gender diverse people	Local	https://www.acon.org.au/wp-content/uploads/2017/12/Policy-Discussion-Paper-Trans-and-Gender-Diverse-Inclusion_V2a.pdf
Consumer Involvement and Engagement Toolkit	Local	https://involvementtoolkit.clinicaltrialsalliance.org.au/