Report 1 – Monitoring the prevalence of racism experienced by Aboriginal and Torres Strait Islander adults, 2019–2021

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Table of contents

Preface . . . 2
Content warning . . . 2
Acknowledgements . . . 2
Acronyms and abbreviations . . . 3
Executive summary . . . 4
Background . . . 6
Racism and its impacts on health and wellbeing . . . 6
Overview of project aims and outputs . . . 7
Methods . . . 8
Participants . . . 9
National prevalence of discrimination and racism . . . 11
Everyday discrimination and racism . . . 11
Health care discrimination and racism . . . 11
Racism in the community . . . 11
Prevalence of racism by state and territory . . . 13
Everyday racism . . . 13
Health care racism . . . 14
Racism in the community . . . 15
Strengths, limitations and contextual information . . . 17
References . . . 18
Appendices . . . 21
Appendix I: Detailed methods . . . 21
Appendix II: Closing the Gap data tables . . . 32

Mayi Kuwayu

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Preface

Content warning

We acknowledge the deep and ongoing repercussions of settler-colonisation and associated trauma, including racism and its impacts; this understanding underpins and drives our work. This report discusses experiences of discrimination and racism. We understand that the findings presented in this report, along with the underlying ideas and concepts discussed, may cause sadness or distress. If you need to talk to someone, call 13YARN on 13 92 76 (24 hours/7 days) to talk with an Aboriginal or Torres Strait Islander Crisis Support worker, or see https://yardhurawalani.com.au/information/ for mental health resources, or see https://www.naccho.org.au/naccho-map/ for a map of Aboriginal Community Controlled Health Organisations. Online resources for Aboriginal and Torres Strait Islander health and wellbeing service providers, including websites, apps, podcasts, videos, helplines, social media and online programs with a focus on social and emotional wellbeing can be found at https://wellmob.org.au/.

Acknowledgements

We acknowledge the Aboriginal and Torres Strait Islander peoples on whose lands we conduct our work and offer our respects to all Elders and their continuing care for Country and connection to culture.

We acknowledge and thank all Mayi Kuwayu Study survey participants, and all who have contributed to study development and data collection. We acknowledge the assistance and guidance of the Mayi Kuwayu Study Data Governance Committee, the Study Chief Investigators and partners, and all members of the Mayi Kuwayu Study team.

We thank the members of Thiitu Tharrmay, the Aboriginal and Torres Strait Islander research governance group, for sharing their ideas and perspectives throughout this project. We acknowledge and thank the community and policy stakeholders we have engaged with for their ongoing valuable contributions.

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Acronyms and abbreviations

Table 1: List of acronyms and abbreviations.

Acronym	Definition
ACT	Australian Capital Territory
ANU	Australian National University
CI	Confidence Interval
HREC	Human Research Ethics Committee
IDSov	Indigenous Data Sovereignty
IRSAD	Index of Relative Socio-economic Advantage and Disadvantage
MKDGC	Mayi Kuwayu Data Governance Committee
NIAA	National Indigenous Australians Agency
NSW	New South Wales
NT	Northern Territory
PR	Prevalence Ratio
Qld	Queensland
RSE	Relative Standard Error
SA	South Australia
SEWB	Social and Emotional Wellbeing
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Executive summary

This report is part of a project that aims to monitor the prevalence of racism experienced by the Aboriginal and Torres Strait Islander adult population. The project is providing accurate, timely, and culturally appropriate data on racism, forming a robust baseline for ongoing monitoring, including progress towards National Agreement on Closing the Gap Priority Reforms and Targets. These data support accountability for government action towards eliminating racism, and can be used to inform and evaluate future policy responses.

In this project, racism is being monitored through analysis of data from Mayi Kuwayu: the National Study of Aboriginal and Torres Strait Islander Wellbeing (the Mayi Kuwayu Study). This Aboriginal and Torres Strait Islander-led and -governed longitudinal study includes over 13,000 adults aged 16 years and over across Australia. The first wave of data collection (Wave 1) commenced in 2018, and the first follow-up survey (Wave 2) commenced in 2022.

The current report is the first in a series of reports for the project and presents an analysis of data for the 2019–2021 time period. Subsequent reports will include analyses for the time periods 2022–2024 and 2025–2027. Other reports in the project will include qualitative information about Aboriginal and Torres Strait Islander peoples' experiences of racism; and report on the development, testing and findings from a measure that captures experiences of racism in interactions with government services.

The analysis in this report is based on responses from 9,401 Mayi Kuwayu Study Wave 1 participants during 2019–2021. A statistical approach to weighting was applied to the Mayi Kuwayu Study sample to generate population representative estimates from the survey sample at the national and state/territory level. Compared to the unweighted sample prevalence (i.e. the prevalence in the sample, without accounting for the extent of representativeness of the sample), use of survey weighting improves our ability to make inferences about outcomes at the whole-of-population level.

Validated measures of discrimination and racism were used. Everyday discrimination was defined as experiencing at least one of the eight types of discrimination in everyday life measured by the Mayi Kuwayu Study, and health care discrimination was defined as experiencing at least one of the four types of discrimination in health care settings measured. Where respondents attributed a discrimination experience to being Aboriginal and/or Torres Strait Islander, it was defined as everyday racial discrimination (or everyday racism) and health care racial discrimination (or health care racism), respectively. Racism in the community was measured by a single item asking respondents if racism was a problem in the community where they lived.

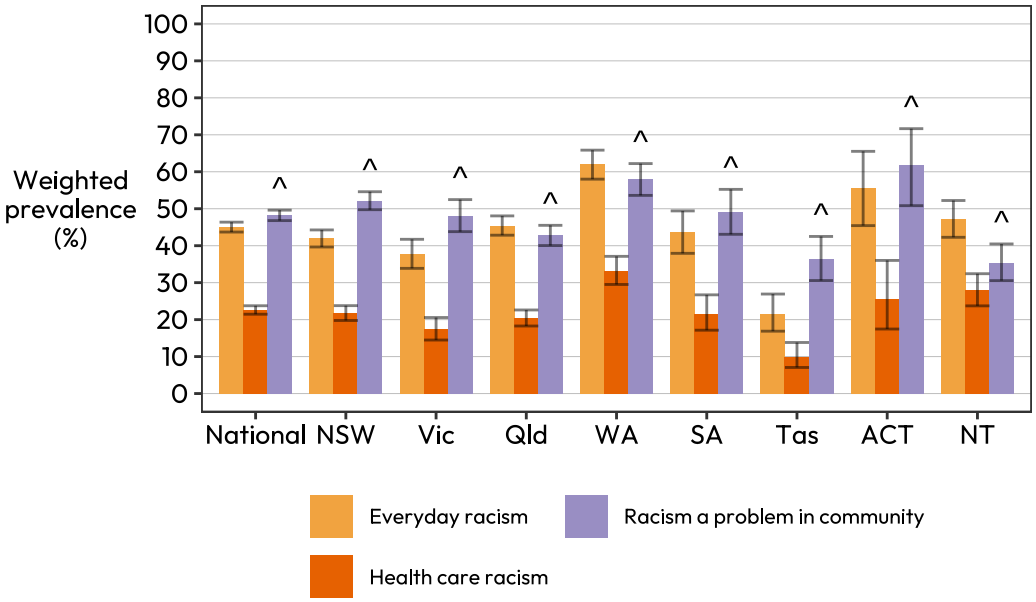
We found that, for Aboriginal and Torres Strait Islander adults nationally during 2019–2021:

- Everyday racism was common; an estimated 45.0% of adults experienced everyday racism (Figure 1).
- Health care racism was common; an estimated 22.6% of adults experienced health care racism.
- For almost half the population, racism was a problem in their community; an estimated 48.2% experienced that racism was a problem where they lived.

From analysis of data by state and territory during 2019–2021, we found:

- The prevalence of both everyday racism and health care racism was consistent with the national average for most states and territories, though individual estimates had a wide range.
- Everyday racism prevalence ranged from 21.5% for Tasmania (Tas) to 62.0% for Western Australia (WA), and health care racism ranged from 9.9% for Tas to 33.2% for WA.
- There was variation in the prevalence of racism in the community by state and territory; estimates ranged from 35.4% for Northern Territory to 61.8% for Australian Capital Territory.

Figure 1: Weighted prevalence and 95% confidence intervals for racism by state and territory, 2019–2021.



^ missing data exceeded 10% in the sample for the respective period.

Background

Racism and its impacts on health and wellbeing

It is well established that racism and discrimination have negative consequences for Aboriginal and Torres Strait Islander peoples' health and wellbeing, across a range of outcomes.[1, 2] The health and social inequities we observe today for Aboriginal and Torres Strait Islander peoples compared to non-Indigenous people in Australia are not due to biology or race, but rather, reflect ongoing effects of settler-colonialism and racism.[3] Race is not a causal factor in the biological mechanisms of disease,[4] but rather, it is through racism—in its interpersonal, institutional, and structural forms—that racial inequities arise, which are reinforced by racism-driven inequities in social determinants of health.[5–9]

Racism is recognised as a public health crisis in Australia and internationally.[10–14] Racism is endemic, systematically and deeply entrenched in settler-colonial institutions, systems, structures, and culture. A robust evidence base demonstrates the negative and far-reaching consequences of racism on health and wellbeing.[15] For example, a study of 8,108 adults from Mayi Kuwayu: the National Study of Aboriginal and Torres Strait Islander Wellbeing (the Mayi Kuwayu Study) demonstrates that moderate/high exposure to everyday discrimination is associated with a wide range of negative impacts, including high blood pressure (Prevalence Ratio (PR) 1.20, 95% Confidence Interval (CI) 1.09–1.32), anxiety (PR 1.60, 95% CI 1.49–1.79), poor self-rated general health (PR 2.16, 95% CI 1.97–2.37), high/very high psychological distress (PR 2.48, 95% CI 2.29–2.69), and low self-reported control over life (PR 3.77, 95% CI 3.27–4.34).[2] Another analysis of Mayi Kuwayu Study data has demonstrated that everyday racial discrimination could explain almost half (47.4%) of the overall gap in psychological distress between Indigenous and non-Indigenous people.[3]

Preceding the current project, Yardhura Walani analysed data from the Mayi Kuwayu Study to monitor and report on wellbeing during the Voice to Parliament Referendum for a project funded by the Department of Health and Aged Care. This series of cross-sectional analyses found that, leading up to the Referendum, there was a significant and substantial increase in the prevalence of experiences of interpersonal discrimination and health care discrimination among Aboriginal and Torres Strait Islander adults.[16] In parallel, significant and substantial declines were observed across numerous wellbeing indicators. In the first 18 months following the referendum, discrimination continued to be pervasive and elevated, and many aspects of wellbeing remained worse than levels seen in the years leading up to the Referendum.[16]

Given the importance of eliminating racism to improve health and wellbeing for Aboriginal and Torres Strait Islander peoples, the National Agreement on Closing the Gap contains several targets and priority reforms relating to racism.[17] The evidence generated by this project will contribute to the monitoring of progress towards Closing the Gap Target 14 'Aboriginal and Torres Strait Islander people enjoy high levels of social and emotional wellbeing', which includes measures of experiences of racism.[18] It will also support monitoring of progress towards Priority Reform 3 'Transforming Government Organisations', which has a target 'Decrease in the proportion of Aboriginal and Torres Strait Islander people who have experiences of racism'.[19] Therefore, this project can support accountability for government action towards eliminating racism.

Overview of project aims and outputs

This project will generate robust national and state/territory-level estimates of racism prevalence across time, using data from the current-largest longitudinal cohort of Aboriginal and Torres Strait Islander adults, the Mayi Kuwayu Study. The project is designed to contribute to improvements in the breadth and quality of Closing the Gap data, to form a baseline for ongoing monitoring of discrimination and racism experienced by Aboriginal and Torres Strait Islander peoples, and to provide quantitative and qualitative data about experiences of racism to support evidence-based policy making.

The project is comprised of three research components:

1. Analysing data from the Mayi Kuwayu Study to report on the prevalence of racism at the national and state/territory level;
2. Adapting the Mayi Kuwayu Study everyday discrimination measure to capture experiences in interactions with government services; and
3. Qualitative analysis of free text data about racism experiences provided by Mayi Kuwayu Study participants.

This report is the first in a series of reports for this project and relates to component 1. It reports on the prevalence of racism at the national and state/territory level during the 2019–2021 period.

Methods

This section provides an overview of the analysis conducted for this report. For full details, please see Appendix I: Detailed methods.

Across the project, national weighted prevalence estimates for racism indicators measured by the Mayi Kuwayu Study will be presented for three time periods: 2019–2021, 2022–2024, and 2025–2027. Weighted estimates by state and territory will also be provided for 2019–2021.

This report includes prevalence estimates for three racism indicators for the 2019–2021 period at the national and state/territory level:

- everyday racism
- health care racism
- racism in the community.

Details about the development of racism measures for the Mayi Kuwayu Study, and the variables used for the current analysis are provided in Appendix I. Everyday discrimination was defined as experiencing at least one of the eight types of discrimination in everyday life measured by the Mayi Kuwayu Study 'a little bit', 'a fair bit', or 'a lot'. Health care discrimination was defined as experiencing at least one of the four types of discrimination in health care settings measured by the Mayi Kuwayu Study 'a little bit', 'a fair bit', or 'a lot'. Where respondents attributed their discrimination experience to being Aboriginal and/or Torres Strait Islander, it was defined as everyday racial discrimination (or everyday racism) and health care racial discrimination (or health care racism), respectively. Racism in the community was measured by a single item asking respondents if racism was a problem in the community where they lived, and defined as a response of 'a little bit', 'a fair bit', or 'a lot'.

The demographic characteristics of the analysis sample for this report are presented in Table 2. A post-stratification weighting approach was used to generate weighted prevalence of discrimination and racism outcomes from the sample to better reflect the total Aboriginal and Torres Strait Islander adult population aged 16 years and over (details at Appendix I). The Australian Bureau of Statistics' 2021 Census-based estimates of the Aboriginal and Torres Strait Islander population as at 30 June 2020 were used as the reference for the 2019–2021 period.[20]

For each of the outcomes, weighted prevalence, 95% confidence interval (CIs) and Relative Standard Error (RSE) were estimated. The weighted prevalence estimates were then used to calculate estimated population numbers experiencing each outcome.

Prevalence estimates that have greater levels of uncertainty based on the RSE (i.e., the Standard Error as a percentage of the point estimate) have been flagged, following the approach used by the Australian Bureau of Statistics. Estimates with RSE >25% (but less than 50%) are presented with a flag to interpret with caution. Estimates with RSE >50% are considered too unreliable for general use and are not presented. Prevalence estimates based on a variable with >10% (but less than 40%) missing data (non-response) have also been flagged and should be interpreted with caution. Estimates based on a variable with >40% missing data are not presented.

To protect confidentiality, all output is reviewed for underlying unweighted counts containing fewer than five individuals, which are not presented, except for the missing category, which poses no risk to identification.

Participants

The total number of Mayi Kuwayu Study Wave 1 participants included in the 2019–2021 sample for this report was 9,401. Unweighted and weighted demographic characteristics are presented in Table 2.

Differences in the weighted and unweighted distributions reflect where there were differences between the Mayi Kuwayu Study sample and the 2020 reference population. Participants under 45 years of age, males, and those living in remote areas were underrepresented in the Mayi Kuwayu Study sample, compared to the 2020 population. The distributions of Mayi Kuwayu Study participants across states and territories and across the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) decile categories were similar to the population distributions.

Table 2: Unweighted and weighted demographic characteristics (N = 9,401).

	Unweighted		Weighted	
	N	%	%	95% CI
Age (Years)				
16–24	935	9.9	24.6	23.2–26.0
25–34	1,206	12.8	22.0	20.8–23.2
35–44	1,364	14.5	16.2	15.3–17.1
45–54	1,748	18.6	15.1	14.4–15.9
55–64	2,147	22.8	11.0	10.5–11.6
65 and over	1,690	18.0	7.8	7.4– 8.2
Missing	311	3.3	3.3	2.9– 3.7
Gender				
Man	3,585	38.1		
Woman	5,581	59.4		
Another category	12	0.1		
Missing	223	2.4		
Sex[1]				
Male	3,585	38.1	48.2	46.9–49.5
Female	5,581	59.4	49.3	48.0–50.6
Missing	235	2.5	2.5	2.2– 2.9
Remoteness Area				
Major cities	3,988	42.4	40.8	39.5–42.1
Regional	4,390	46.7	42.5	41.2–43.8
Remote	990	10.5	16.3	15.1–17.5
Missing	33	0.4	0.4	0.3– 0.6
State/Territory				
ACT	129	1.4	1.0	0.8– 1.2
NSW	3,086	32.8	33.7	32.5–35.0
NT	662	7.0	8.4	7.7– 9.2
QLD	2,669	28.4	27.1	25.9–28.3
SA	398	4.2	5.2	4.6– 5.8
TAS	473	5.0	3.5	3.1– 3.9
VIC	884	9.4	8.0	7.4– 8.7
WA	1,025	10.9	12.3	11.4–13.3
Missing	75	0.8	0.8	0.6– 1.1
IRSAD decile				
Decile 1–5	6,876	73.1	76.6	75.6–77.7
Decile 6–10	2,416	25.7	22.2	21.2–23.2
Missing	109	1.2	1.2	0.9– 1.5

[1]Responses other than male and female were coded to missing in the sex variable.

National prevalence of discrimination and racism

Everyday discrimination and racism

During 2019–2021, an estimated 45.0% of the Aboriginal and Torres Strait Islander adult population experienced everyday racism (Figure 2).

The estimated prevalence of discrimination in everyday life, a broader measure which also includes discrimination not attributed to Indigeneity (or missing attribution), was 65.1% (Table 3).

Health care discrimination and racism

An estimated 22.6% of the Aboriginal and Torres Strait Islander adult population experienced health care racism.

The estimated prevalence of experiencing discrimination when receiving health care, a broader measure which also includes discrimination not attributed to Indigeneity (or missing attribution), was 40.1%.

Racism in the community

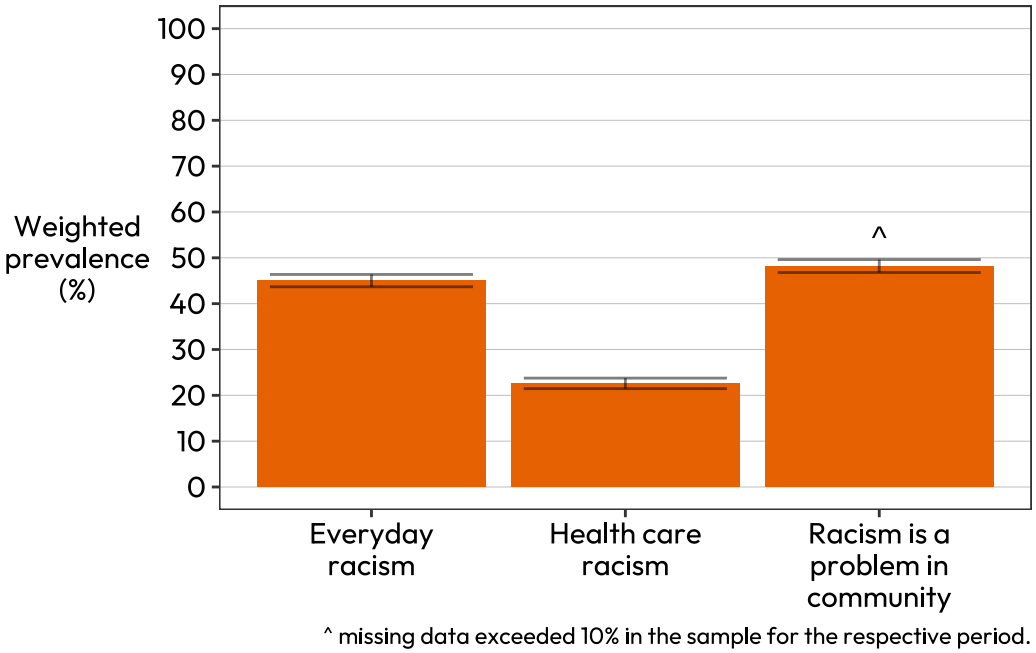
For an estimated 48.2% of the Aboriginal and Torres Strait Islander adult population, racism was a problem in the community where they lived.

Table 3: Weighted national prevalence (%) and 95% confidence intervals (95% CI) for discrimination and racism, 2019–2021.

	%	95% CI
Everyday discrimination and racism		
No discrimination	34.9	33.7–36.2
Discrimination with no/missing attribution	20.0	19.0–21.1
Racial discrimination	45.0	43.7–46.4
Health care discrimination and racism		
No discrimination	59.9	58.6–61.2
Discrimination with no/missing attribution	17.5	16.5–18.6
Racial discrimination	22.6	21.5–23.8
Racism a problem in community		
No	51.8[1]	50.4–53.2[1]
Yes	48.2[1]	46.8–49.6[1]

[1]Missing data exceeded 10% in the sample for the respective period.

Figure 2: Weighted national prevalence and 95% confidence intervals for three racism indicators, 2019–2021.



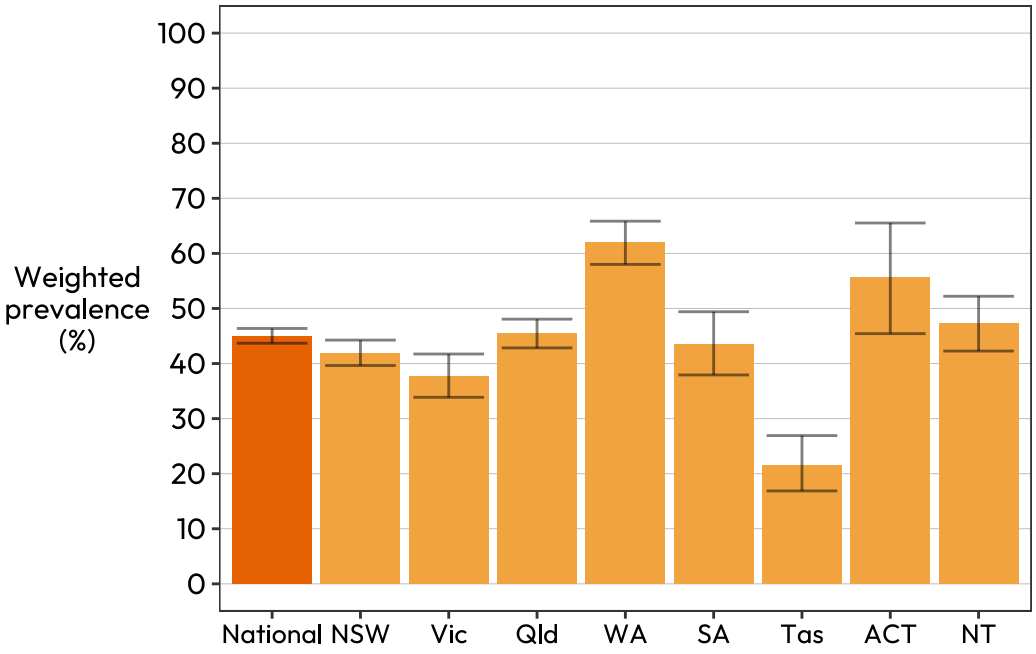
^ missing data exceeded 10% in the sample for the respective period.

Prevalence of racism by state and territory

Everyday racism

During 2019–2021, there was variation in the prevalence of everyday racism by state and territory, though most prevalence estimates were consistent with the national average (Figure 3, Table 4). Tasmania (Tas) and Victoria (Vic) had a significantly lower prevalence estimate than the national average, and Western Australia (WA) had a significantly higher prevalence. The estimates ranged from 21.5% for Tas to 62.0% for WA.

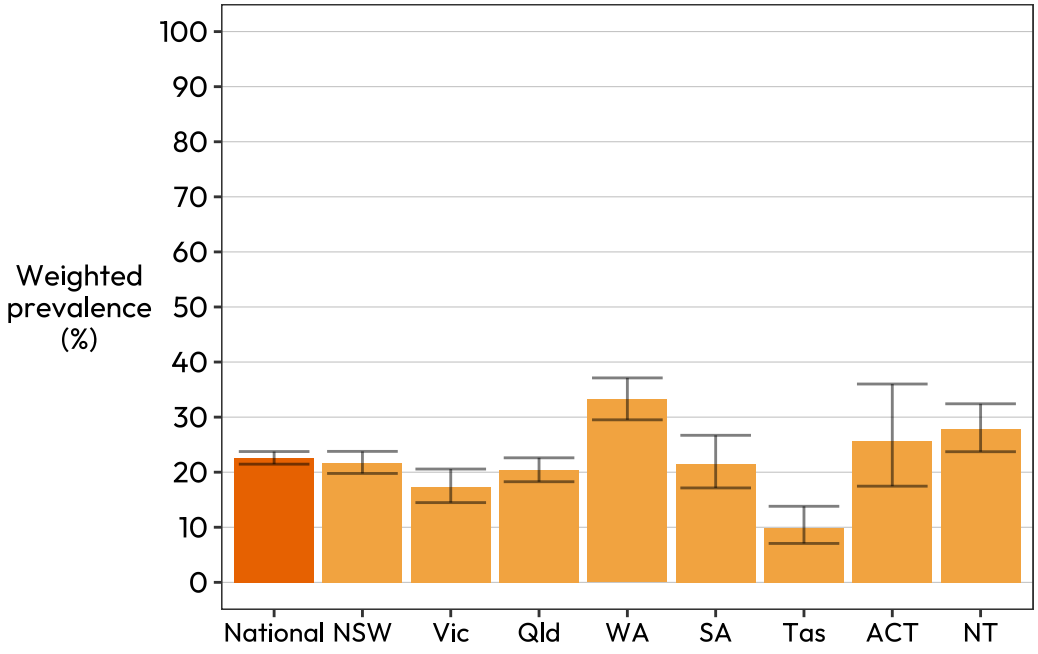
Figure 3: Weighted prevalence and 95% confidence intervals for everyday racism by state/territory, 2019–2021.



Health care racism

The prevalence of health care racism by state and territory had a similar pattern to everyday racism, with most prevalence estimates consistent with the national average (Figure 4). Tas and Vic had a significantly lower prevalence estimate than the national average, and WA had a significantly higher prevalence. The estimates ranged from 9.9% for Tas to 33.2% for WA.

Figure 4: Weighted prevalence and 95% confidence intervals for health care racism by state/territory, 2019–2021.



Racism in the community

There was variation in the prevalence of racism in the community by state and territory (Figure 5). Northern Territory (NT), Queensland (Qld), and Tas had a significantly lower prevalence estimate than the national average, and Australian Capital Territory (ACT), New South Wales (NSW), and WA had a significantly higher prevalence estimate. The estimates ranged from 35.4% for NT to 61.8% for ACT.

Figure 5: Weighted prevalence and 95% confidence intervals for racism in the community by state/territory, 2019–2021.

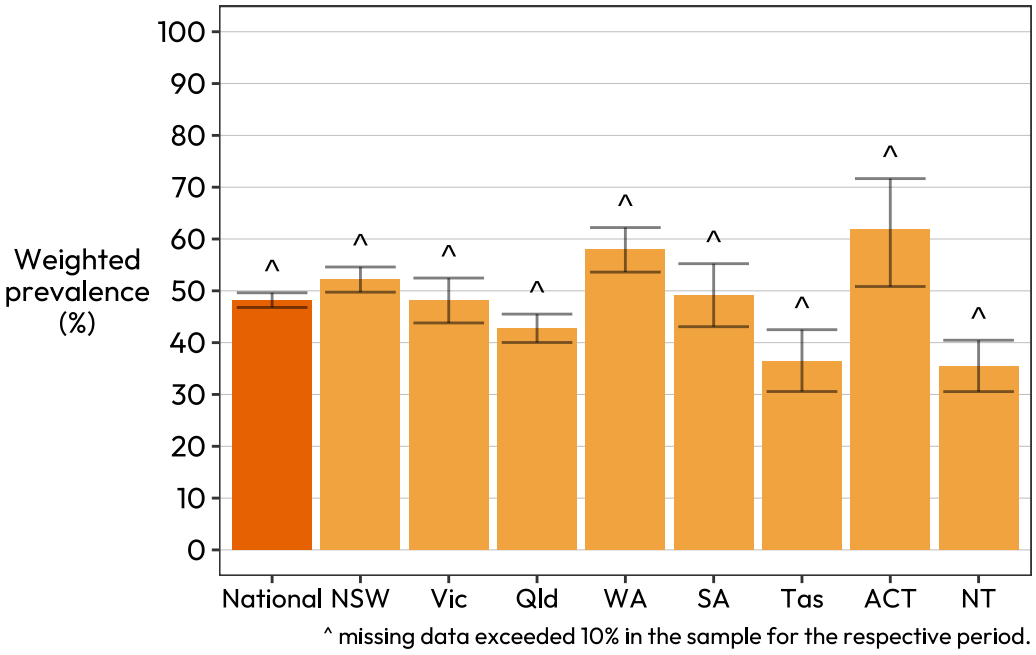
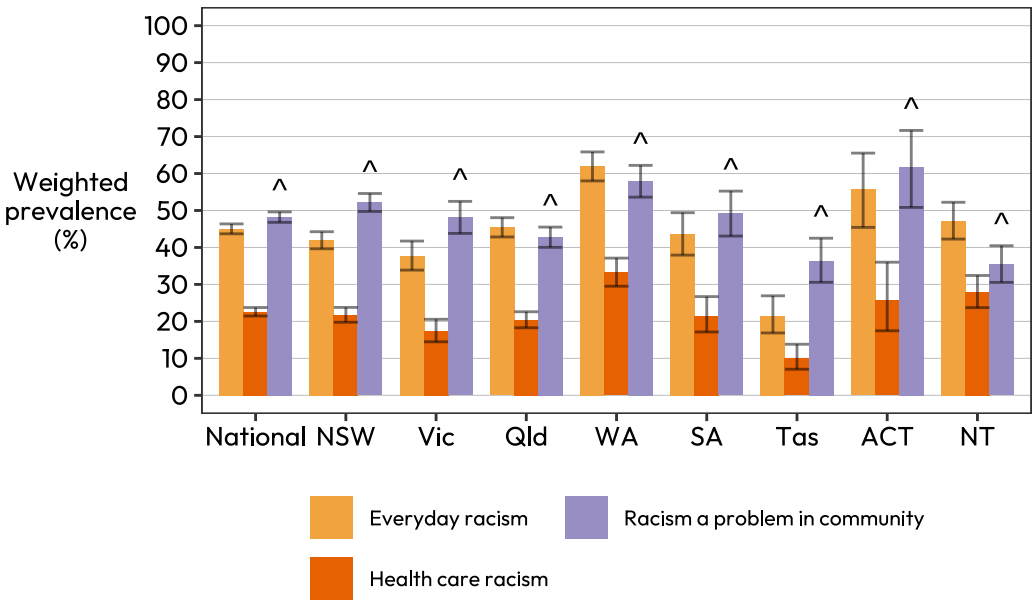


Table 4: Weighted prevalence (%) and 95% confidence intervals (95% CI) for racism by state/territory, 2019–2021.

	Everyday racism		Health care racism		Racism a problem in community	
	%	95% CI	%	95% CI	%	95% CI
NSW	41.9	39.7–44.3	21.7	19.8–23.8	52.2[1]	49.7–54.6[1]
Vic	37.7	33.9–41.7	17.3	14.5–20.6	48.1[1]	43.8–52.5[1]
Qld	45.4	42.8–48.1	20.4	18.3–22.6	42.8[1]	40.0–45.5[1]
WA	62.0	58.0–65.9	33.2	29.5–37.1	58.0[1]	53.6–62.2[1]
SA	43.6	37.9–49.4	21.5	17.1–26.7	49.2[1]	43.1–55.2[1]
Tas	21.5	16.9–26.9	9.9	7.1–13.8	36.3[1]	30.6–42.5[1]
ACT	55.7	45.4–65.5	25.7	17.5–36.0	61.8[1]	50.8–71.7[1]
NT	47.2	42.3–52.2	27.9	23.7–32.4	35.4[1]	30.6–40.5[1]

[1]Missing data exceeded 10% in the sample for the respective period.

Figure 6: Weighted prevalence and 95% confidence intervals for three racism indicators by state/territory, 2019–2021.



Strengths, limitations and contextual information

This analysis is based on data from the Mayi Kuwayu Study, an Aboriginal and Torres Strait Islander-led and -governed study that includes over 13,000 Aboriginal and Torres Strait Islander adult participants.[21, 22] It represents the current-largest cohort of Aboriginal and Torres Strait Islander adults and is currently the only national data resource that adheres to Indigenous Data Sovereignty (IDSov) principles. The Study includes a holistic range of wellbeing outcomes, developed through community-based processes, and includes field-tested and validated measures of discrimination and racism.[2]

The estimated prevalence of everyday racism reflects experiences of eight specific types of interpersonal discrimination measured in the Mayi Kuwayu Study; it does not include all forms of racism that people might encounter, particularly structural forms of racism, and therefore it underestimates total exposure to racism.[3] Similarly, the estimated prevalence of health care racism reflects experiences of four specific types of individual discrimination measured by the Wave 1 Mayi Kuwayu Study survey, and total exposure may be underestimated. In contrast to these two indicators, which reflect individual experiences, racism in the community is a community-level measure. All three racism measures are based on self-reported responses to Mayi Kuwayu Study survey questions. Some experiences may be underreported as participants may not have wanted to disclose their experiences.

The everyday and health care racism estimates are also restricted to experiences of discrimination that are identified as being attributed to Indigeneity (i.e., racial discrimination). It is likely that attribution to Indigeneity is underreported, given that it is not always possible to know the reason for the discrimination faced (ambiguity), and many participants in the sample may have faced discrimination in relation to multiple and/or intersecting identities (e.g., due to Indigeneity and gender).[2, 23, 24]

The intention of the Mayi Kuwayu Study's non-random sampling approach is to capture diversity across participants, while enabling individual and community-level self-determination in participation.[25] While the Mayi Kuwayu Study sample is not intended to be representative of the whole Aboriginal and Torres Strait Islander population, survey weights have been developed and applied to the sample to make more appropriate whole-of-population estimates. The weighting applied in this report was based on five population benchmark variables (age, sex, remoteness, state/territory, IRSAD). The estimates of racism prevalence reflect the averages at the national and state/territory level; they do not necessarily reflect outcomes for any specific individuals or communities.

All results are estimates only, and confidence intervals have been reported to assist in interpretation. In particular, estimates should be interpreted with caution if confidence intervals are wide.

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Yardhura Walani

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Appendices

Appendix I: Detailed methods

Overview of the Mayi Kuwayu Study

This project leverages the data infrastructure of the Mayi Kuwayu Study to provide accurate and detailed data to monitor the prevalence of racism experienced by Aboriginal and Torres Strait Islander peoples within Australia at a national and state/territory level. Mayi Kuwayu is an Aboriginal and Torres Strait Islander-led and -governed study founded on years of extensive community engagement, which enacts principles of IDSov. Utilising data from the Mayi Kuwayu Study in this project will bring Indigenous-governed data to the forefront of Closing the Gap reporting.

Understanding culture and its relationships to wellbeing is at the core of the Mayi Kuwayu Study. The Study is currently the largest longitudinal study of Aboriginal and Torres Strait Islander adults, with over 13,000 participants to date.[21] As a longitudinal study, it aims to track participants' wellbeing over time, through repeat surveys. New participants are welcome to join the study at any time.

Processes are embedded in the Mayi Kuwayu Study to ensure principles of IDSov and Indigenous Data Governance are upheld in the collection, storage, and use of data, including:

- Aboriginal and Torres Strait Islander-led study
- Aboriginal and Torres Strait Islander majority research team
- Data processed in house by team members under direction of Aboriginal and Torres Strait Islander staff members
- The Mayi Kuwayu Data Governance Committee (MKDGC) comprised exclusively of Aboriginal and Torres Strait Islander members who oversee all use of data, including in relation to IDSov principles
- The study is based on community priorities and the community determined what to measure (e.g., culture)
- Community-developed and tested questionnaire items/instruments
- Designed to support disaggregated analysis (e.g. at the Country/mob/language group level) and community-level decision making
- Community engagement across the research life cycle, including through Knowledge Translation.

All individuals aged 16 years and older identifying as Aboriginal and/or Torres Strait Islander are eligible to participate. Participation in the study is voluntary and with informed consent. Participants can skip any questions they are not comfortable answering and can stop the survey at any time. Participants can complete the survey on paper, online, or face-to-face with a community researcher.

The key aims of the Mayi Kuwayu Study sampling design are: (1) to maximise participation, while ensuring individual and community self-determination in participation; and (2) to maximise diversity of participation across demographic, social, geographic, and cultural

factors.[22, 26] The Wave 1 (baseline) sample has broad representation from across Australia, with more than 150 communities represented.[22]

Mayi Kuwayu Study recruitment is ongoing, through a "living cohort" design; this means that participants can complete a survey at any time, regardless of their participation in any earlier wave/s of the study. New waves of the study (featuring an updated questionnaire) occur approximately every 4 years. Wave 1 (baseline) surveys were completed between June 2018 and May 2021. Wave 2 commenced in 2022, and Wave 3 will commence around 2026. Follow-up surveys maintain the core components of the baseline survey.[27] Modifications to the survey are made through an Aboriginal and Torres Strait Islander-led survey redesign process, incorporating feedback from participants and community researchers, evidence of psychometric validity of measures, and evolving community priorities.

Measuring outcomes in the Mayi Kuwayu Study

Survey items for the baseline questionnaire were developed based on literature review and extensive community consultation with almost 200 Aboriginal and Torres Strait Islander people attending over 20 focus groups across Australia from 2014 to 2017.[21, 27] The aim of the development process was to develop robust measures of wellbeing that capture a range of important concepts, as determined by Aboriginal and Torres Strait Islander peoples, and capture heterogeneity within the population.[21]

Mayi Kuwayu Study surveys include items measuring a range of holistic wellbeing outcomes, including experiences of racism at the individual and community level.

The development of measures of everyday and health care discrimination and racism was iterative and included discussions at five community focus groups, spanning major cities to remote areas.[2] In these focus groups, participants completed a draft of the Study questionnaire and provided feedback on the questionnaire items verbally and/or in writing on the questionnaire.[21] Further questionnaire refinement occurred through field testing and input from stakeholders with lived experience and/or content expertise (e.g., field researchers, study Chief Investigators, independent researchers). The process culminated in an 8-item instrument that captures experiences of discrimination in everyday life and a 4-item instrument that captures experiences in health care settings, each followed by a global attribution item to ascertain if the respondent thought the discrimination occurred on the basis of their Indigeneity (i.e., racial discrimination). This design enables analysis and reporting of experiences of discrimination and/or racial discrimination in everyday life and in health care, to best suit the research or policy question.

The measures were field tested and validated using data from 7,501 baseline participants in the Mayi Kuwayu Study, demonstrating face validity and robust psychometric properties.[2]

Community-level racism is also measured in the Mayi Kuwayu Study, in a module about worries in the family and community. Participants are asked if racism is a problem in the community where they live, with response options of 'not at all', 'a little bit', 'a fair bit', 'a lot', and 'unsure'. While community-level racism is strongly associated with interpersonal experiences,[2] the community-level racism measure provides complementary information about experiences of racism at the broader community level. For example, in the validation

study, among those who reported experiencing no discrimination in everyday life, a quarter (24.6%, n=614/2500) reported that racism was a problem in their community ('a little' to 'a lot'). Similarly, among those who reported experiencing no discrimination in health care, over a third (36.1%, n=1379/3825) reported that racism was a problem in their community.

Ethics

The Mayi Kuwayu Study is Aboriginal and Torres Strait Islander-led and -governed, and is underpinned by principles of IDSov.[28] Participation is voluntary and requires written informed consent. The Mayi Kuwayu Study is conducted with ethics approvals from national, state, and territory Human Research Ethics Committees (HRECs) and from relevant Aboriginal and Torres Strait Islander organisations. The analysis for this report was done under The Australian National University HREC protocol 2016/767 and with approval from the Mayi Kuwayu Data Governance Committee (Reference Number: D250929.1). All variables and analyses were pre-specified in the approved application to the Data Governance Committee. Aboriginal or Torres Strait Islander peoples led, governed, and were involved in all stages of this research.

Data used for analysis

This analysis is intended to generate robust national and state and territory level estimates of racism prevalence for Aboriginal and Torres Strait Islander adults aged 16 years and over during 2019–2021.

Data used for analysis in this report are from the Mayi Kuwayu Study Wave 1 sample, Data Release 4.1, which includes 10,143 responses from Aboriginal and/or Torres Strait Islander adults. After excluding responses that were not completed during 2019–2021, and participants who were missing data for all benchmark variables used to weight the sample, the analysis sample was 9,401.

Variables

This report analysed data on discrimination and racism and reports demographic characteristics of the analysis sample. Details of how each variable was treated and defined are presented here.

Age group

Participants were asked to fill in their date of birth (day/month/year). Age in years was calculated based on date of entry (i.e., date of completion of the survey) minus date of birth, rounded to the nearest year. Implausible values were recoded to missing in the continuous age variable.

An age group variable was created, categorised as:

- 16–24

- 25–34
- 35–44
- 45–54
- 55–64
- 65 and over

Gender

Participants were asked, 'What is your gender?'. Response options were:

- Male (1)
- Female (2)
- Other (3)

A gender variable was created, with categories labelled as:

- Man (1)
- Woman (2)
- Another category (3)

Sex

A binary sex variable was derived from the gender question responses so that the population prevalence of sex could be used as a benchmark to weight the data, as there was no gender question included in the 2021 Census.

Sex categories were coded from the corresponding gender variable categories:

- Male (1)
- Female (2)

The 'other' (3) gender response was coded to missing. Participants missing sex were retained in the sample and included in analyses.

Remoteness

Participants were asked to fill in their home address (Suburb/Town, State/Territory, Postcode). Addresses were then geocoded by Geoscape against the Geographic National Address File. Remoteness was included in the geocoded data, and was categorised according to Australian Statistical Geography Standard remoteness categories: major cities, inner regional, outer regional, remote, and very remote.[29] These five categories were collapsed into three:

- Major cities
- Inner or outer regional areas (Regional)
- Remote or very remote areas (Remote)

State/Territory

State or territory was derived from the geocoded home address data.

Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)

IRSAD is defined by the ABS[30] and is derived in the Mayi Kuwayu Study from the geocoded home address data, which was categorised into deciles (i.e., 1-10). IRSAD deciles were collapsed into two categories:

- Deciles 1-5
- Deciles 6-10

The IRSAD variable was included in the weighting process as a proxy for individual-level measures of socioeconomic wellbeing (e.g., financial status, education, and work status). Testing of the weighting process indicated that including multiple individual-level measures of socioeconomic wellbeing was not optimal for the sample size, leading to decreased precision of weighted estimates. Use of the area-level measure of socioeconomic wellbeing as an alternative enabled incorporation of this information into the weighting approach.

Experience of discrimination and racism in everyday life

In the survey module 'Discrimination/racism in everyday life', participants were asked, "How often do these things happen to you?".

There were 8 items to which participants could respond:

1. I am treated with less respect than other people;
2. I receive worse service than other people (including at restaurants, stores, Centrelink, housing);
3. People act like I am not smart;
4. People act like they are afraid of me;
5. I am called names, insulted, or yelled at;
6. I am followed around in shops;
7. I am watched more closely than others at work or school;
8. Police unfairly bother me.

The response options for each item were:

- Not at all
- A little bit
- A fair bit
- A lot

A composite variable 'everyday discrimination' was created based on responses to the 8 items to summarise whether participants experienced any of these forms of everyday discrimination. A response of 'a little bit', 'a fair bit', or 'a lot' to one or more of the items was defined as experiencing discrimination.

Following the experiences of discrimination in everyday life question, participants were asked, "When these things happen, do you think it is because you are Aboriginal/Torres Strait Islander?". The response options were:

- Not at all
- A little bit
- A fair bit
- A lot

A response of 'a little bit', 'a fair bit', or 'a lot' was considered attribution. The responses regarding attribution were then used to create a composite categorical variable 'everyday discrimination and racism', with categories:

- No experiences of discrimination in everyday life
- Any experiences of discrimination in everyday life, but not attributed to being Aboriginal/Torres Strait Islander (or missing attribution)
- Any experiences of discrimination in everyday life that are attributed to being Aboriginal/Torres Strait Islander (i.e., 'everyday racism')

A binary outcome variable for 'everyday racism' was then created, categorised as 'yes' for those categorised in the everyday racism category of the everyday discrimination and racism variable, and 'no' otherwise.

Participants were coded as missing if they did not respond to any of the eight discrimination items.

Experience of discrimination and racism in health care

In the survey module 'Discrimination/racism in health care', participants were asked, "How often do these things happen to you when you receive health care?".

There were four items to which participants could respond:

1. Health care providers do not listen to what I say;
2. I have to wait longer than other people;
3. I receive poorer health care than other people;
4. I go home without the care I need.

The response options for each item were:

- Not at all
- A little bit
- A fair bit
- A lot

A composite variable 'health care discrimination' was created based on responses to these items to summarise whether participants experienced any of these forms of health care discrimination. A response of 'a little bit', 'a fair bit', or 'a lot' to one or more of the items was defined as experiencing discrimination.

Following the experiences of discrimination in health care question, participants were asked, "When these things happen, do you think it is because you are Aboriginal/Torres Strait Islander?". The response options were:

- Not at all
- A little bit
- A fair bit
- A lot

A response of 'a little bit', 'a fair bit', or 'a lot' was considered attribution. The responses regarding attribution were then used to create a composite categorical variable 'health care discrimination and racism', with categories:

- No experiences of discrimination in health care
- Any experiences of discrimination in health care, but not attributed to being Aboriginal/Torres Strait Islander (or missing attribution)
- Any experiences of discrimination in health care that are attributed to being Aboriginal/Torres Strait Islander (i.e., 'health care racism')

A binary outcome variable for 'health care racism' was then created, categorised as 'yes' for those categorised in the health care racism category of the health care discrimination and racism variable, and 'no' otherwise.

Participants were coded as missing if they did not respond to any of the four discrimination items.

Racism in the community

In the survey module 'Worries in the family and community', participants were asked "Are any of these a problem where you live?".

One of the items participants could respond to was 'Racism?'. The response options were:

- Not at all
- A little bit
- A fair bit
- A lot
- Unsure

A binary outcome variable 'racism in the community' was created, categorised as 'yes' for responses of 'a little bit', 'a fair bit', or 'a lot', and categorised as 'no' for responses of 'not at all'. Responses of 'unsure' were coded as missing.

Weighting of Mayi Kuwayu Study data

As is the case with many longitudinal cohort studies, the Mayi Kuwayu Study sample is not designed to be representative of the population of interest, but is intended to capture diversity within the Aboriginal and Torres Strait Islander population that is often missed in other survey designs.[27]

A post-stratification approach to weighting using iterative proportional fitting (also known as raking) has been applied to the Mayi Kuwayu Study sample to generate population-representative prevalence estimates from the survey sample. Compared to the unweighted sample prevalence (i.e., the observed prevalence in the sample), use of survey weighting improves our ability to make inferences about outcomes at the whole-of-population level. The benchmark variables selected for use in weighting in this analysis were age, sex, remoteness, state/territory, and IRSAD, as they were considered to represent key sources of variation in outcomes. The same benchmark variables will be used for weighting each dataset across reports. The benchmark variables age, sex, remoteness, and state/territory were based on population distributions according to the Australian Bureau of Statistics' 2021 Census-based estimates of the Aboriginal and Torres Strait Islander population, as at 30 June 2020 (see Table 5).[20] The population distributions for IRSAD deciles were taken directly from the 2021 Census via Australian Bureau of Statistics' TableBuilder, as these data are not included in the estimates and projections releases.

An inclusive approach to weighting was undertaken to ensure study participants with a gender response of 'other', or who did not provide a response to the gender question, could receive a weight and be included despite being coded as missing on the derived sex benchmark. This involved adding a 'missing' category to the population distributions for sex and assigning it a proportion that matched the proportion of the Mayi Kuwayu sample with missing sex, then recalculating the population distributions for male and female to accommodate the new 'missing' proportion (summing to a total of 100% across all three categories). This approach was then extended to the other benchmark variables to ensure participants with missing data would have weights generated, noting that participants missing on all benchmark variables were excluded from the analysis sample.

Table 5: Distributions of benchmark variables from the Australian Bureau of Statistics estimated resident population as at 30 June 2020 and the 2021 Census.

Categories	Count	Prevalence (%)
Sex		
Male	307,270	49.4
Female	314,187	50.6
Total	621,457	100.0
Age (Years)		
16–24	158,135	25.4
25–34	141,525	22.8
35–44	104,069	16.7
45–54	97,021	15.6
55–64	70,555	11.4
65 and over	50,152	8.1
Total	621,457	100.0
State/Territory		
NSW	211,094	34.0
Vic	50,045	8.1
Qld	169,884	27.3
WA	76,986	12.4
SA	32,729	5.3
Tas	21,618	3.5
ACT	6,390	1.0
NT	52,528	8.5
Total	621,274	100.0
Remoteness		
Major city	254,524	41.0
Inner/outer regional	265,325	42.7
Remote/very remote	101,608	16.3
Total	621,457	100.0
IRSAD		
Decile 1–5	395,598	77.6
Decile 6–10	114,506	22.4
Total	510,104	100.0

Statistical analysis

Weighted national prevalence estimates for the three racism indicators were calculated for the 2019–2021 period. Standard Errors and 95% CI were produced for each estimate, to provide a plausible range of values for the weighted estimate. Weighted prevalence, Standard Error and 95% CI were also estimated by state and territory. Non-overlapping 95% CIs provided evidence of significant differences in racism indicators between states and territories, and relative to the national estimate. RSEs were calculated from Standard Errors, which were used to flag estimates with higher levels of uncertainty, as described in Methods.

The weighted prevalence estimates were applied to population counts, obtained from the estimated 2020 population, to generate an estimated number of Aboriginal and Torres Strait Islander adults experiencing each outcome nationally and by state and territory. The estimated population size for Aboriginal and Torres Strait Islander adults aged 16 years and over was of 621,457 in 2020.[20] State and territory estimates were based on the respective estimated population totals for each state and territory in 2020. The estimated population number for each outcome was generated by applying a scale factor to the weighted count from the Mayi Kuwayu Study sample (the ratio of total Aboriginal and/or Torres Strait Islander population in 2020 aged 16 years and over to the Mayi Kuwayu Study sample size for the respective period).

Participants who were missing data on a racism indicator were not included in the analysis sample for that indicator (see Table 6). Estimates based on a variable with >10% missing data have been flagged, as described in Methods. To protect confidentiality, any cells representing fewer than five people were suppressed, except for the missing category, which poses no risk to identification.

Table 6: Unweighted discrimination and racism indicators in the Mayi Kuwayu Study sample, with missing counts (n) and proportions (%).

	Unweighted	
	n	%
Everyday discrimination and racism		
No discrimination	3,680	39.1
Discrimination with no/missing attribution	1,743	18.5
Racial discrimination	3,720	39.6
Missing	258	2.7
Health care discrimination and racism		
No discrimination	5,627	59.9
Discrimination with no/missing attribution	1,575	16.8
Racial discrimination	1,853	19.7
Missing	346	3.7
Racism a problem in community		
No	4,440	47.2
Yes	3,733	39.7
Missing	1,228	13.1

Analysis was conducted using Stata (version 19.5), R (version 4.5.2) and RStudio (2026.01.1+403).

Table 7: Weighted population number, prevalence (%) and the relative standard error (RSE) for the prevalence of everyday racism.

	Number			Prevalence		RSE	
	No	Yes	Missing	No	Yes	No	Yes
National	332,047	272,024	17,386	55.0	45.0	1.2	1.5
NSW	119,407	86,290	5,397	58.1	41.9	2.0	2.8
Vic	30,879	18,700	532	62.3	37.7	3.2	5.3
Qld	90,009	74,941	4,867	54.6	45.4	2.4	2.9
WA	28,570	46,618	1,798	38.0	62.0	5.3	3.2
SA	17,937	13,855	937	56.4	43.6	5.2	6.7
Tas	16,624	4,534	394	78.5	21.5	3.3	11.9
ACT	2,855	3,535	0	44.3	55.7	11.7	9.3
NT	26,198	23,471	2,859	52.8	47.2	4.8	5.4

Appendix II: Closing the Gap data tables

Table 8: Weighted population number, prevalence (%) and the relative standard error (RSE) for the prevalence of health care racism.

	Number			Prevalence		RSE	
	No	Yes	Missing	No	Yes	No	Yes
National	463,729	135,252	22,410	77.4	22.6	0.8	2.6
NSW	160,919	44,644	5,531	78.3	21.7	1.3	4.7
Vic	40,462	8,452	1,131	82.7	17.3	1.9	9.0
Qld	130,147	33,270	6,467	79.7	20.4	1.4	5.5
WA	49,348	24,508	3,130	66.8	33.2	2.9	5.8
SA	24,697	6,760	1,205	78.5	21.5	3.1	11.3
Tas	18,924	2,103	591	90.1	9.9	1.9	17.1
ACT	4,623	1,631	136	74.4	25.7	6.4	18.6
NT	35,240	13,631	3,591	72.1	27.9	3.1	8.0

Table 9: Weighted population number, prevalence (%) and the relative standard error (RSE) for the prevalence of racism a problem in community.

	Number			Prevalence		RSE	
	No	Yes	Missing	No	Yes	No	Yes
National	281,014	261,513	78,930	51.8	48.2	1.4	1.5
NSW	88,622	96,685	25,854	47.8	52.2	2.6	2.4
Vic	22,627	21,030	6,389	51.9	48.1	4.3	4.6
Qld	85,409	63,807	20,669	57.3	42.8	2.4	3.3
WA	28,637	39,492	8,857	42.0	58.0	5.2	3.8
SA	14,792	14,256	3,681	50.9	49.2	6.1	6.3
Tas	11,959	6,834	2,891	63.7	36.3	4.8	8.4
ACT	2,243	3,603	612	38.2	61.8	14.1	8.7
NT	28,126	15,359	9,043	64.7	35.4	3.9	7.2