National Centre for
Aboriginal and Torres Strait Islander
Wellbeing Research

Monitoring Aboriginal and Torres Strait Islander mental health and wellbeing around the Voice to Parliament Referendum

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Content warning

We acknowledge the deep and ongoing repercussions of settler-colonisation and associated trauma, including the potential impacts of public discourse and Referendum-related stress; this understanding underpins and drives our work.

This report discusses concepts including experiences of discrimination, racism, psychological distress, mental health, and trauma. We understand that the findings presented in this report, along with the underlying ideas and concepts discussed, may cause sadness or distress for some people. 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://www.beyondblue.org.au/who-does-it-affect/aboriginal-and-torres-strait-islander-people/helpful-contacts-and-websites 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 contributors to the development of the Mayi Kuwayu Study, the data collectors, and all survey participants. 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. We acknowledge and thank the community and policy stakeholders we have engaged with for their ongoing valuable contributions.

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List of acronyms and abbreviations

ACT	Australian Capital Territory
CI	Confidence Interval
HREC	Human Research Ethics Committee
MK-K5	The culturally modified 5-item Kessler Psychological Distress Scale
NSW	New South Wales
NT	Northern Territory
PTSD	Post-traumatic stress disorder
QLD	Queensland
SA	South Australia
SEWB	Social and Emotional Wellbeing
TAS	Tasmania
VIC	Victoria
WA	Western Australia

Executive Summary

This report is the seventh in a series concerned with mental health and wellbeing of Aboriginal and Torres Strait Islander peoples in the lead up to and beyond the Voice to Parliament Referendum. It compares levels of health and wellbeing before public discussion around the Voice Referendum was prominent ('Baseline': 2018–2021, and 'Pre-Referendum period': January 2022–January 2023), to the period of the Referendum campaign up until the vote ('Referendum period', 1 February 2023–14 October 2023), and to the year following the Referendum vote ('Post-Referendum period ', 15 October 2023–14 October 2024). For background about the project, please see earlier reports in this series.

The current report provides insight into wellbeing outcomes in the first 12 months following the Referendum vote based on data from 1,146 Aboriginal and Torres Strait Islander adults. Estimates from each time period are weighted to generate estimates for the total Aboriginal and Torres Strait Islander adult population.

The current analysis expands the Post-Referendum analysis provided in Report 6 which looked at data from the first 6 months following the Referendum. A future report will expand the Post-Referendum analysis to cover a longer time window (18 months) and include additional participants.

The current findings indicate that in the 12 months following the Referendum (the Post-Referendum period) some aspects of health and wellbeing that had worsened during the Referendum period have continued to worsen Post-Referendum, some have remained worse since Baseline, and some have improved after the Referendum period. Some key findings are summarised below.

- Some outcomes have continued to worsen following the Referendum.
    - More than half of adults reported experiences of healthcare discrimination (53%), an increase of 13 percentage points from Baseline and 7 percentage points from the Referendum period.
    - Experiences of vicarious racism are pervasive (78%) and have increased 9 percentage points since the Referendum period.
    - Experiences of doctor-diagnosed anxiety are reported by over a third of adults (34%), an increase of 5 percentage points from Baseline and 6 percentage points from the Referendum period.
    - Feeling torn between cultures was reported by 27% of adults, an increase of 5 percentage points from Baseline and 6 percentage points from the Referendum period.
- Many outcomes have remained significantly worse compared with Baseline.
    - Experiences of everyday discrimination and high/very high psychological distress increased from Baseline to the Referendum period, and have remained elevated in the Post-Referendum period, at 74% and 45% respectively.
    - Several measures of mental health, social and emotional wellbeing, physical health, and family and community support worsened from Baseline to the Referendum period, and remain worse in the Post-Referendum period. For example, good general health has dropped 14 percentage points from Baseline (to 59%), high happiness has dropped 5 percentage points from Baseline (to 83%), and people being accepted for who they are has dropped 7 percentage points from Baseline (to 75%).
- However, signs of improvement were seen for some outcomes.
    - Feeling in control of one's life increased 4 percentage points compared with the Referendum period, up to 81% in the Post-Referendum period.
    - A lower percentage of people felt disconnected from culture in the Post-Referendum period (33%), similar to the Referendum period and representing a decrease of 5 percentage points from Baseline.

Key elements of Aboriginal and Torres Strait Islander wellbeing remain strong, including high happiness, high life satisfaction, and feelings of life control, despite high—and escalating—burdens of discrimination and racism. However, we observe significant and substantial declines in other key aspects of wellbeing, with critically high estimated prevalences of doctor-diagnosed anxiety (34%) and high/very high psychological distress (45%) in the Post-Referendum period, and only 59% of the population experiencing good general health. Where high wellbeing endures, this is likely to be underpinned by high levels of family and community support and strong connection to culture. In previous reports, we identified the erosion of measures of family and community support during the Referendum period, but noted strengthening of some measures of cultural connectedness. In the current analysis of wellbeing in the Post-Referendum period, we observe that some of these measures of cultural connectedness have improved Post-Referendum while others have worsened.

Although overall wellbeing among Aboriginal and Torres Strait Islander peoples has remained relatively high, the gradual erosion of the key factors that sustain this wellbeing—such as family and community support and cultural connectedness—signals a growing threat to wellbeing. These foundational supports, which have traditionally acted as buffers against the burdens of discrimination and racism, have been weakened, leaving wellbeing at significant risk in the current context.

These Post-Referendum findings highlight the importance of additional supports to be made available to Aboriginal and Torres Strait Islander peoples beyond the Referendum period. These findings support community calls for work that addresses racism and discrimination and builds self-determination at all levels. The path forward must be guided by a decolonised and collectivist approach that recognises and values the interconnection between an individual and their family, community, culture and Country. As such, holistic services to support family and community wellbeing and connection to culture are essential complements to services focused on individual wellbeing.

Our findings on discrimination and racism align with reports from the national helpline 13YARN, a First Nations crisis support service. Aboriginal and/or Torres Strait Islander people's calls to the helpline increased by 40% during the Referendum campaign; Post-Referendum, over a quarter (26%) of calls have been from people experiencing distress caused by racism. While our results do not provide evidence of causality, the observed contemporaneous increases in discrimination/racism and psychological distress/anxiety are consistent with a causal contribution of racism to the increasing burden of poor mental health.

The totality of evidence on the continuing escalation of racism prevalence, combined with known negative impacts on the wellbeing of individuals and communities, supports the notion that racism is a public health crisis in Australia. It is important to acknowledge the pervasiveness of racism and discrimination experienced by Aboriginal and Torres Strait Islander peoples, and to recognise that these experiences have increased since the Referendum campaign began. While the Referendum process has concluded, continued and urgent attention is needed to address racism and discrimination: now more than ever.

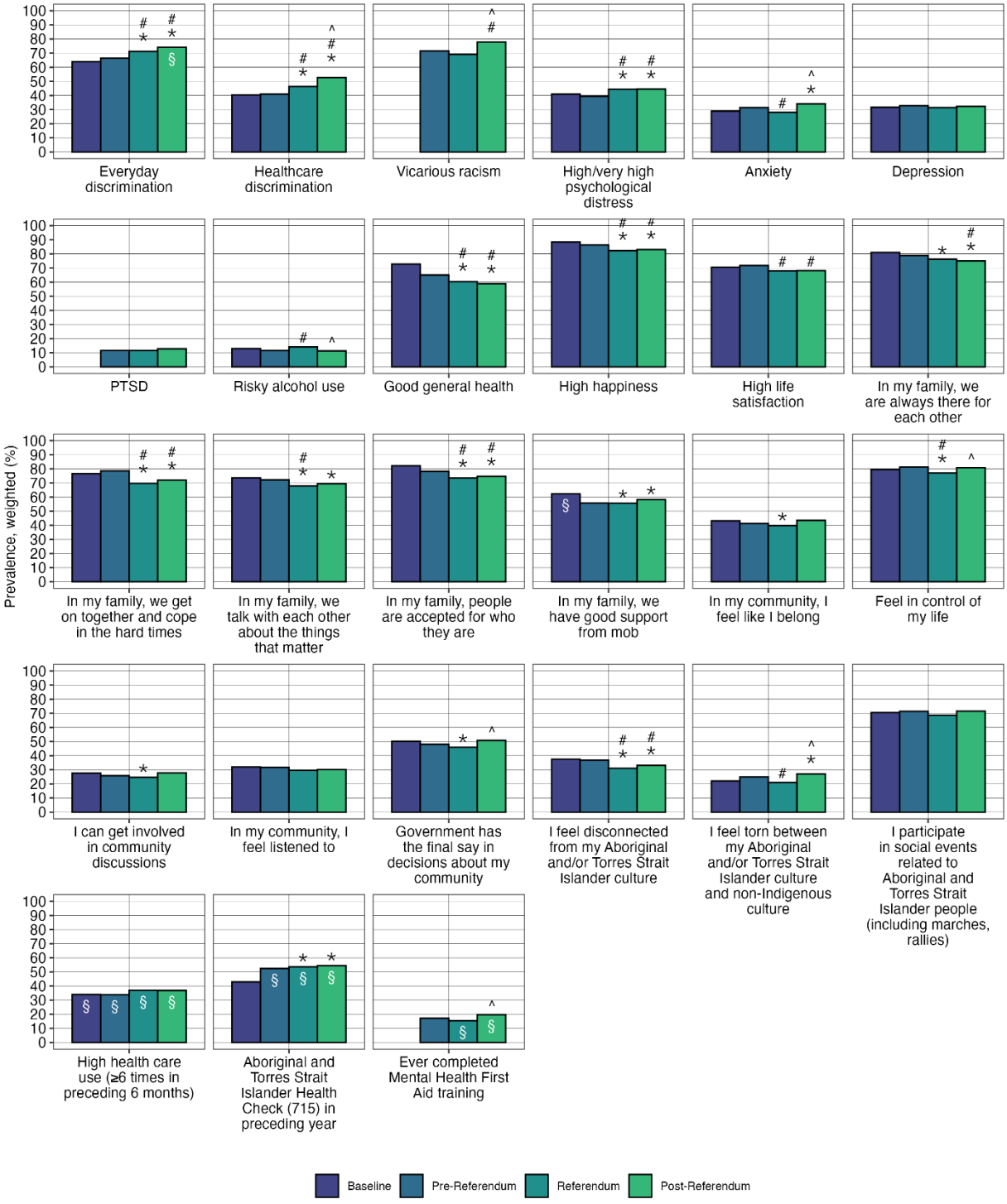

Figure 1. Weighted prevalence estimates for wellbeing outcomes over the four study periods

** significant change compared to Baseline.*

 # significant change compared to Pre-Referendum period.

^ significant change compared to Referendum period.

The following outcome variables were not available in Wave 1: vicarious racism, post-traumatic stress disorder (PTSD), and mental health first aid training; accordingly, no comparisons are made to the Baseline period.

§ indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias.

Introduction

This section provides a brief summary of the analysis conducted for this report. For full details, please see Appendix I: Methods.

This report analysed data from the Mayi Kuwayu Study, using four samples of adult participants (18 years and over) based on dates they completed a Mayi Kuwayu Study questionnaire, corresponding to the study periods described in Table 1. For the purposes of this report:

- The Post-Referendum period encompasses 15 October 2023 to 14 October 2024, the first twelve months after the vote.
- The Referendum period encompasses February 2023—when the National Week of Action marked the formal commencement of campaigning—up until the vote on 14 October 2023.
- The Pre-Referendum period encompasses the year immediately prior to the Referendum period.
- The Baseline period includes the majority of Wave 1 data collection for the Mayi Kuwayu Study, spanning June 2018 to May 2021.

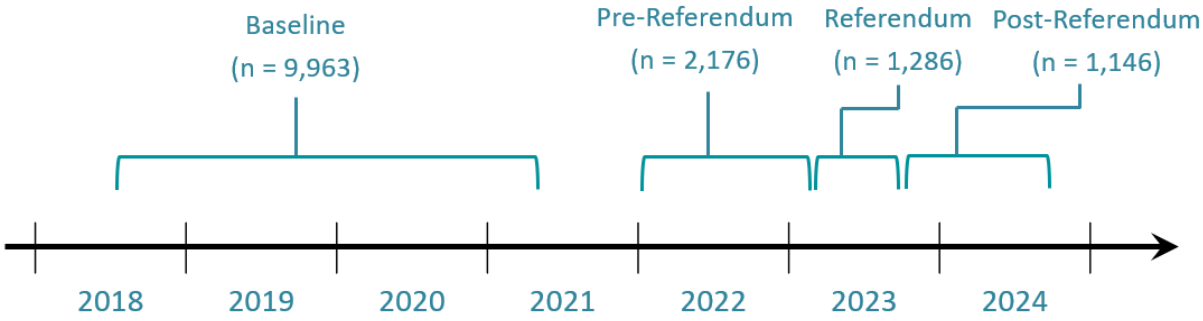

Figure 2. Timeframes and sample sizes for the four study periods in this analysis

Not all outcomes measured in the Wave 2 survey were available in the Wave 1 survey; for these outcomes there is no Baseline data, however the Pre-Referendum period serves as a comparator.

Table 1: Overview of study periods for the analysis presented in this report

Study Period	Baseline	Pre-Referendum period	Referendum period	Post-Referendum period
Date range	Jun 2018–May 2021	Jan 2022–Jan 2023	Feb 2023–14 Oct 2023	15 Oct 2023–14 Oct 2024
Mayi Kuwayu Study data	Wave 1	Wave 2	Wave 2	Wave 2
Sample size in this report	9,963	2,176	1,286	1,146

Demographic characteristics of the samples used in this report are presented at Table 2. All results presented here have been weighted to better reflect the total Aboriginal and Torres Strait Islander population. The same post-stratification weighting approach was used across study periods, with the exception of a change in the categorisation of the remoteness variable used for weighting the Post-Referendum sample, due to small participant numbers in remote areas (details at Appendix I).

Table 2: Demographic characteristics of Mayi Kuwayu Study participants in samples used in this report, and distribution after weighting

	Baseline (n=9,963)		Pre-Referendum (n=2,176)		Referendum (n=1,286)		Post-Referendum (n=1,146)	
	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)
Age								
18–39 years	29.4	51.0 (49.6-52.4)	21.3	50.4 (47.5-53.4)	18.6	46.7 (42.7-50.7)	31.8	49.5 (45.3-53.6)
40–59 years	38.4	30.6 (29.0-32.3)	32.0	30.3 (26.8-33.8)	30.6	29.1 (24.5-33.7)	31.6	28.8 (23.9-33.7)
60+ years	28.8	15.0 (13.2-16.8)	43.0	15.6 (11.7-19.5)	41.1	14.5 (0.0-19.6)	29.9	15.1 (0.0-20.4)
Missing	3.4	3.4 (1.5-5.4)	3.7	3.7 (0.0-7.8)	9.7	9.7 (0.0-14.9)	6.7	6.7 (0.0-12.3)
Gender								
Man	38.1	47.3 (45.9-48.7)	41.1	47.2 (44.1-50.2)	44.9	46.3 (42.3-50.3)	40.5	47.1 (42.9-51.3)
Woman	59.3	50.0 (48.7-51.4)	56.0	49.9 (47.0-52.9)	50.4	49.0 (45.1-52.9)	56.5	49.8 (45.7-53.9)
Identify as a gender other than man or woman	0.1	0.2 (0.0-2.1)	1.7	1.4 (0.0-5.6)	0.7	0.7 (0.0-6.2)	1.2	1.4 (0.0-7.2)
Missing	2.5	2.5 (0.5-4.4)	1.2	1.5 (0.0-5.6)	4.0	4.0 (0.0-9.3)	1.8	1.6 (0.0-7.4)
Remoteness								
Major city	39.8	39.8 (38.2-41.3)	45.1	40.5 (37.3-43.7)	47.0	40.1 (35.9-44.3)	40.3	39.5 (35.0-44.0)
Inner or outer regional	46.0	41.7 (40.2-43.2)	46.2	42.5 (39.3-45.7)	46.3	42.1 (37.9-46.3)	53.9	54.9 (51.0-58.8)
Remote or very remote	10.6	14.9 (13.1-16.7)	6.8	15.2 (11.3-19.1)	4.0	15.1 (10.0-20.1)	1.6	1.4 (0.0-7.2)
Missing	3.6	3.6 (1.7-5.5)	1.8	1.8 (0.0-6.0)	2.7	2.7 (0.0-8.1)	4.2	4.2 (0.0-9.9)
Identification as Aboriginal and/or Torres Strait Islander								
Aboriginal	90.6	90.5 (89.9-91.1)	91.3	86.3 (84.7-87.8)	92.2	92.0 (90.4-93.5)	93.6	94.2 (92.8-95.6)
Torres Strait Islander	3.4	3.4 (1.5-5.4)	4.0	7.4 (3.4-11.5)	2.1	2.2 (0.0-7.6)	2.0	1.7 (0.0-7.5)
Aboriginal and Torres Strait Islander	4.3	4.5 (2.6-6.4)	4.1	5.7 (1.6-9.8)	4.7	4.8 (0.0-10.1)	3.5	3.1 (0.0-8.8)
Missing	1.7	1.6 (0.0-3.5)	0.6	0.6 (0.0-4.8)	0.9	1.0 (0.0-6.4)	0.9	1.0 (0.0-6.8)
State/Territory								
NSW	32.8	31.0 (29.4-32.6)	31.3	25.3 (21.7-29.0)	32.2	26.3 (21.6-31.0)	35.0	35.0 (30.3-39.6)
VIC	9.4	8.5 (6.6-10.4)	10.9	9.0 (5.0-13.0)	7.9	4.8 (0.0-10.1)	5.0	4.2 (0.0-9.8)
QLD	28.6	27.9 (26.2-29.5)	30.5	34.1 (30.7-37.5)	31.6	32.4 (27.9-36.9)	30.5	29.4 (24.5-34.2)
WA	10.6	11.7 (9.9-13.6)	11.4	15.2 (11.3-19.0)	15.5	21.6 (16.7-26.4)	18.8	21.4 (16.2-26.5)
SA	4.2	3.8 (1.8-5.7)	5.4	4.7 (0.6-8.8)	3.6	2.7 (0.0-8.1)	1.9	1.7 (0.0-7.4)
TAS	5.0	4.2 (2.3-6.1)	6.2	5.8 (1.7-9.9)	5.2	5.1 (0.0-10.5)	3.1	2.4 (0.0-8.1)

	Baseline (n=9,963)		Pre-Referendum (n=2,176)		Referendum (n=1,286)		Post-Referendum (n=1,146)	
	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)	% in sample (unweighted)	Weighted % (95%CI)
NT	7.0	10.5 (8.7-12.4)	1.7	3.2 (0.0-7.3)	1.2	2.9 (0.0-8.3)	—	—
ACT	1.4	1.5 (0.0-3.5)	1.6	1.5 (0.6-5.7)	1.0	0.8 (0.0-6.2)	1.5	1.7 (0.0- 7.4)
Missing	0.8	0.9 (0.0-2.9)	1.0	1.2 (0.9-5.4)	1.9	3.5 (0.0-8.9)	—	—
Financial security								
Run out of money or spend more than is earned	15.8§	16.7 (14.9-18.5)	11.6	13.6 (9.7-17.5)	17.9§	21.9 (17.1-26.8)	22.3§	24.8 (19.8-29.9)
Just enough money	31.8§	31.7 (30.0-33.3)	28.1	29.8 (26.3-33.4)	28.8§	30.6 (26.0-35.1)	33.7§	34.4 (29.7-39.0)
Some, or a lot, of savings	41.9§	39.0 (37.5-40.5)	51.9	46.8 (43.7-49.9)	41.9§	31.6 (27.1-36.1)	33.5§	28.0 (23.0-32.9)
Missing	10.4§	12.6 (10.8-14.5)	8.4	9.7 (5.7-13.7)	11.4§	15.9 (10.8-20.9)	10.6§	12.8 (0.0-18.3)
Highest formal education qualification								
Up to school year 10 or intermediate certificate	44.3	41.4 (39.9-42.9)	43.6	37.9 (34.6-41.2)	49.9	49.2 (45.3-53.1)	46.9	46.8 (42.5-51.0)
School year 12 or beyond, including certificate or diploma	53.7	56.2 (54.9-57.5)	53.6	59.0 (56.3-61.7)	44.1	44.9 (40.9-49.0)	50.5	50.5 (46.4-54.6)
Missing	2.0	2.4 (0.4-4.3)	2.8	3.1 (0.0-7.2)	6.0	5.8 (0.0-11.1)	2.6	2.8 (0.0-8.5)

§ indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias. Results where missing data prevalence is >40% in the sample for the respective period are not reported due to risk of bias.
— indicates cell suppressed to protect confidentiality due to small underlying unweighted sample size.

Results

Discrimination and racism

Discrimination remains widespread and elevated compared to Baseline levels, and experiences of healthcare discrimination and vicarious racism have increased since the Referendum (Figure 3, Table 3). In the Post-Referendum period, an estimated 74.1% of Aboriginal and Torres Strait Islander adults had experienced everyday discrimination. This is similar to the percentage in the Referendum period (71.2%) and represents an increase of about 10 percentage points from the Baseline period (64.0%). This corresponds to an estimated 50,000 additional adults having experienced everyday discrimination in the Post-Referendum period compared to Baseline.

In the Post-Referendum period, over half (52.7%) of Aboriginal and Torres Strait Islander adults had experienced discrimination in healthcare settings. This represents a significant increase from the Referendum period (46.3%) and the Baseline period (40.4%). This corresponds to an estimated 61,000 additional Aboriginal and Torres Strait Islander adults experiencing discrimination in healthcare settings in the Post-Referendum period compared to Baseline.

From Wave 2 onwards, the Mayi Kuwayu Study measures aspects of vicarious racism, including the experience of hearing jokes or insulting comments about Aboriginal and Torres Strait Islander peoples, as well as witnessing unfair treatment of Aboriginal and Torres Strait Islander peoples. Experiencing vicarious racism was pervasive in the Post-Referendum period, with an estimated 77.9% of Aboriginal and Torres Strait Islander adults experiencing vicarious racism. This is a significant increase compared to levels of vicarious racism in the Pre-Referendum period (71.5%) and Referendum period (69.2%); no data are available at Baseline.

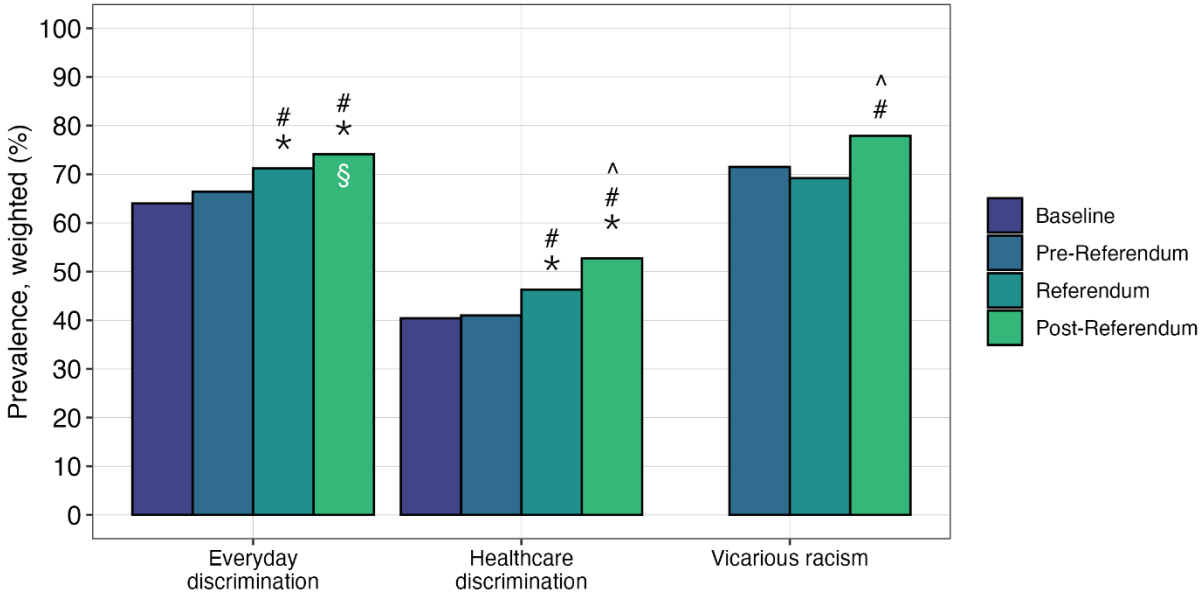

Figure 3. Weighted prevalence estimates for discrimination and racism variables over the four study periods.
** indicates significant change compared with Baseline.*
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.
The vicarious racism measure was introduced in Wave 2, hence no data are available for Baseline period (which uses Wave 1 data).
§ indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias.

Health and wellbeing outcomes

Psychological distress remains common and elevated compared to Baseline, and anxiety is increasing (Figure 4, Table 3). During the Post-Referendum period, 44.6% Aboriginal and Torres Strait Islander adults experienced high or very high psychological distress. This is similar to the percentage in the Referendum period (44.4%), and significantly higher than Baseline (41.0%). This represents an estimated 18,000 additional Aboriginal and Torres Strait Islander adults experiencing high or very high psychological distress in the Post-Referendum period compared to Baseline.

During the Post-Referendum period, 34.0% of Aboriginal and Torres Strait Islander adults had a doctor diagnosis of, and/or took medication for anxiety. This is significantly higher than at Baseline (28.9%) and the Referendum period (28.1%), noting the prevalence during the Referendum period was significantly lower than in the Pre-Referendum period (31.4 %). Anxiety prevalence in the Post-Referendum period was 5 percentage points above Baseline, representing an estimated 25,000 additional adults with anxiety.

During the Post-Referendum period, 32.3% of Aboriginal and Torres Strait Islander adults had a doctor diagnosis of, and/or took medication for, depression, consistent with earlier time points: 31.7% at Baseline, 32.8% in the Pre-Referendum period, and 31.4% during the Referendum period.

The prevalence of post-traumatic stress disorder (PTSD) was similar across periods: 11.6% in the Pre-Referendum period, 11.5% in the Referendum period, and 12.8% in the Post-Referendum period. No data were collected on PTSD in the Baseline period.

Alcohol consumption is sometimes used as a coping mechanism in response to stress. Risky alcohol use was included as a variable in this analysis because some focus group participants (see Report 1 in this series) mentioned that alcohol may be used as a way to cope with stressors relating to the Referendum. In this study, risky alcohol use was defined as consuming six or more drinks per day on a weekly or more frequent basis. The estimated prevalence of risky alcohol use increased from the Pre-Referendum period (11.5%) to the Referendum period (14.1%) and decreased from the Referendum period to the Post-Referendum period (11.3%).

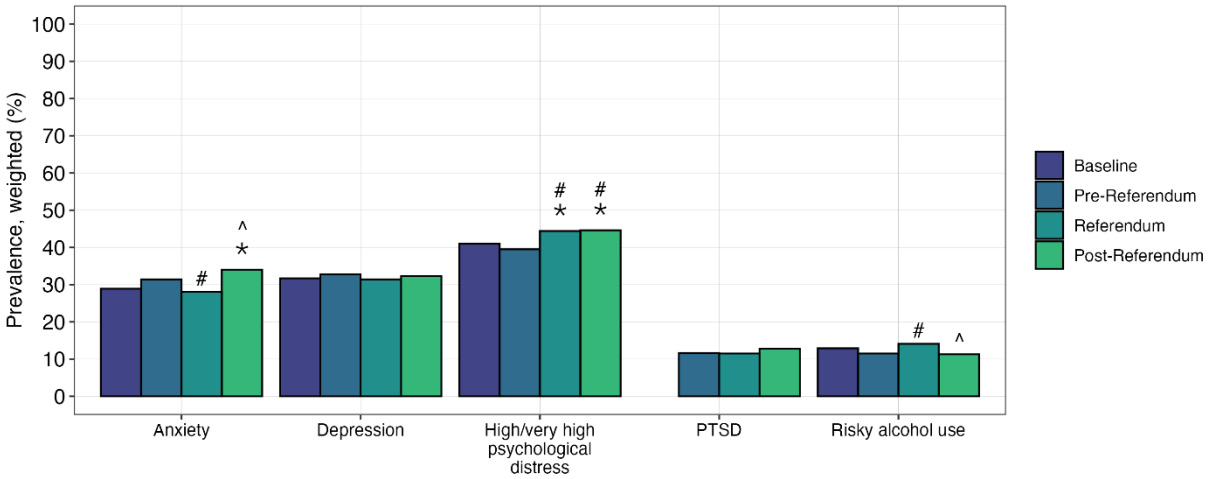

Figure 4. Weighted prevalence estimates for selected mental health & physical health variables over the four study periods.

* *indicates significant change compared with Baseline.*
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.
PTSD measure was introduced in Wave 2, hence no data are available for Baseline period (which uses Wave 1 data).

Levels of general health have substantially dropped since Baseline; levels of happiness are high, but remain lower than at Baseline (Figure 5, Table 3). An estimated 58.9% of Aboriginal and Torres Strait Islander adults experienced good general health in the Post-Referendum period. This represents a 14 percentage point decline from Baseline (72.8%) and is similar to the prevalence in the Referendum period (60.4%). This corresponds to an estimated 69,000 fewer Aboriginal and Torres Strait Islander adults experiencing good general health during the Post-Referendum period compared to Baseline.

The prevalence of high happiness in the Post-Referendum period (83.1%) was significantly lower than in the Baseline (88.4%) and Pre-Referendum (86.3%) periods and similar to levels during the Referendum period (82.3%). This represents an estimated 27,000 fewer Aboriginal and Torres Strait Islander adults experiencing high happiness during the Post-Referendum period compared to Baseline.

The prevalence of high life satisfaction in the Post-Referendum period was 68.2%, which was significantly lower than the Pre-Referendum period (71.8%), and similar to the Baseline (70.6%) and the Referendum (68.0%) periods.

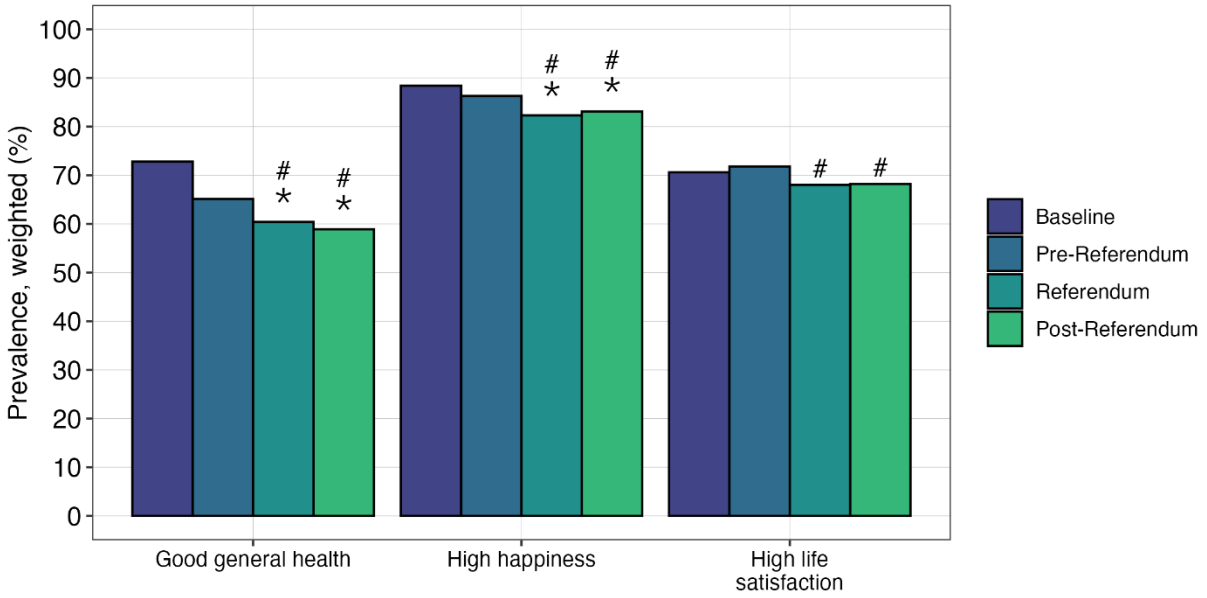

Figure 5. Weighted prevalence estimates for general health, happiness, and life satisfaction variables over the four study periods.

** indicates significant change compared with Baseline.*
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.

Family and community support

Family and community wellbeing is high, but many measures remain lower than at Baseline (Figure 6, Table 3). Across the measures of family and community wellbeing examined, we did not detect any significant differences between the Post-Referendum period and the Referendum period. In the Post-Referendum period it was significantly less common for families to get on together and cope in hard times (71.9%), compared to both the Baseline (76.5%) and the Pre-Referendum (78.5%) periods. Similarly, Post-Referendum, there was a significantly lower prevalence of being there for each other (75.0%) compared to the Baseline (81.0%) and the Pre-Referendum (78.9%) periods. There was also a significantly lower prevalence of people being accepted for who they are in the Post-Referendum period (74.7%) compared to the Baseline period (82.1%) and the Pre-Referendum period (78.2%).

In the Post-Referendum period compared to Baseline, there remained a significantly lower prevalence of talking with each other about the things that matter (69.4% compared to 73.6%) and having good support from mob (58.2% compared to 62.3%).

Across survey periods, around 40% of Aboriginal and Torres Strait Islander adults felt like they belonged in their community.

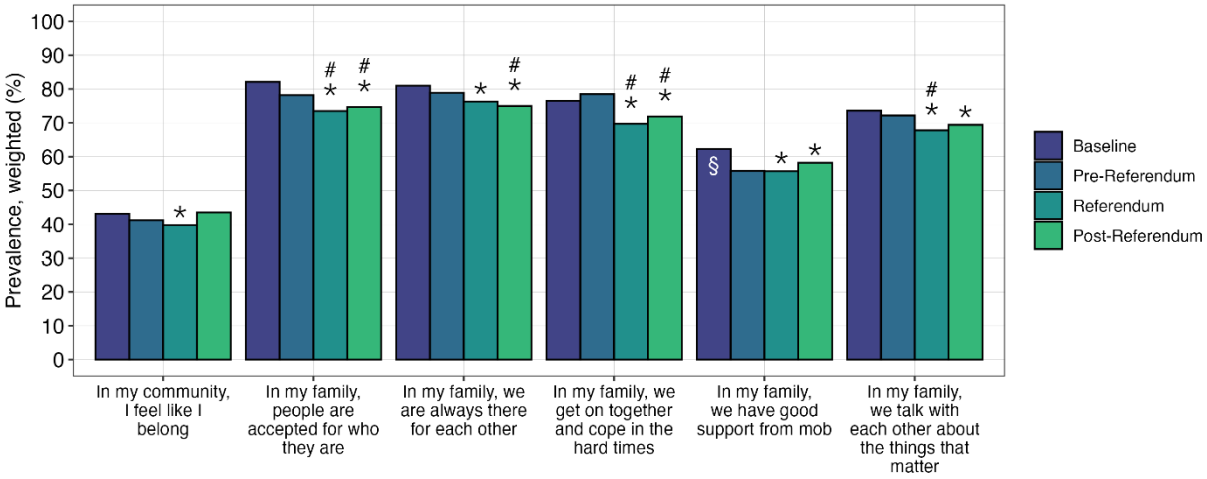

Figure 6. Weighted prevalence estimates for family and community support variables over the four study periods.

* *indicates significant change compared with Baseline*.
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.
§ *indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias.*

Self-determination

Most measures of self-determination are similar to Baseline levels (Figure 7, Table 3). During the Post-Referendum period, 80.8% of Aboriginal and Torres Strait Islander adults felt in control of their lives. This prevalence was consistent with levels at Baseline (79.5%), and the Pre-Referendum period (81.3%), and significantly higher than levels during the Referendum period (77.0%) (which was significantly lower than Baseline and the Pre-Referendum period). The percentage of Aboriginal and Torres Strait Islander adults who felt they could get involved in community discussions was 27.8% in the Post-Referendum period which was similar to the Baseline (27.6%), Pre-Referendum (25.8%), and Referendum (24.7%) periods (the Referendum period was significantly lower than Baseline).

The prevalence of feeling listened to in community was similar across periods: 32.0% at Baseline, 31.7% in the Pre-Referendum period, 29.6% in the Referendum period, and 30.1% in the Post-Referendum period. The prevalence of Aboriginal and Torres Strait Islander adults who felt that government has the final say in community decisions was 50.8% during the Post-Referendum period, which was a significant increase from the Referendum period low of 45.9%, and similar to the Baseline level of 50.2% and the Pre-Referendum level of 48.0%.

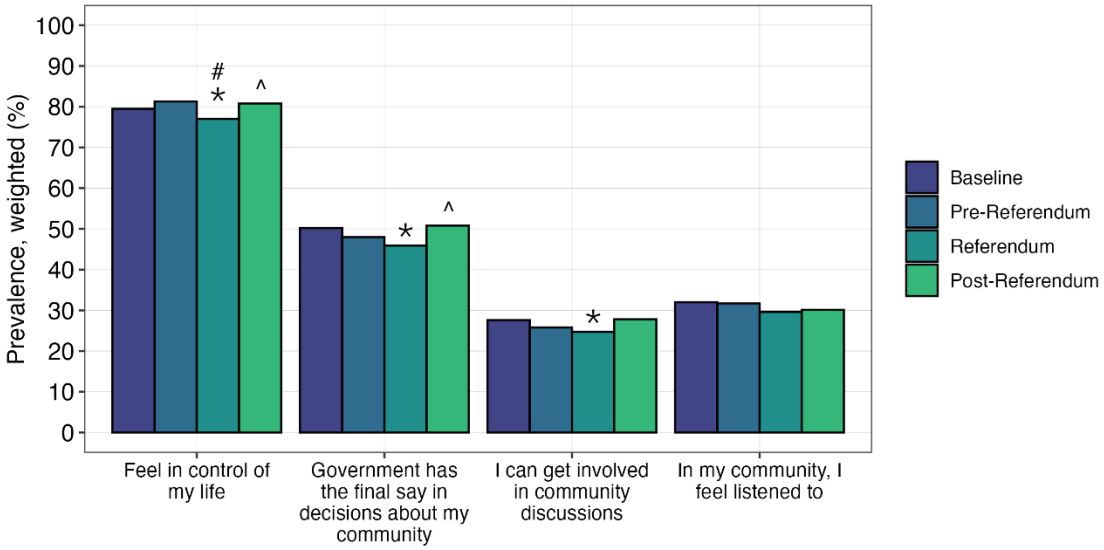

Figure 7. Weighted prevalence estimates for self-determination variables over the four study periods.
** indicates significant change compared with Baseline.*
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.

Cultural connectedness

Feeling torn between cultures is increasing (Figure 8, Table 3). Some measures of cultural connectedness had improved during the Referendum period compared to earlier period/s; improvements were maintained for the experience of disconnection from culture, but the experience of feeling torn between cultures has significantly worsened post-Referendum.

It was significantly less common to feel disconnected from Aboriginal and/or Torres Strait Islander culture during the Referendum period (31.0%) compared to the Baseline (37.5%) and the Pre-Referendum periods (36.8%), indicating improvements in connectedness to culture. In the Post-Referendum period the prevalence of feeling disconnected was 33.1%, which was similar to the Referendum period and significantly lower than levels observed in the Baseline and Pre-Referendum periods.

During the Referendum period, a smaller percentage of adults felt torn between their Aboriginal and/or Torres Strait Islander culture and non-Indigenous culture (21.0%) compared to during the Pre-Referendum period (24.9%); this was similar to the prevalence at Baseline (22.1%). Post-Referendum, this percentage increased to 27.0%, which was significantly higher than the Referendum and Baseline periods and similar to the Pre-Referendum period.

Participation in social events related to Aboriginal and Torres Strait Islander peoples remained high across the four study periods, with more than two-thirds of Aboriginal and Torres Strait Islander adults participating in these events across the Baseline (70.5%), Pre-Referendum (71.4%), Referendum (68.6%) and Post-Referendum (71.5%) periods.

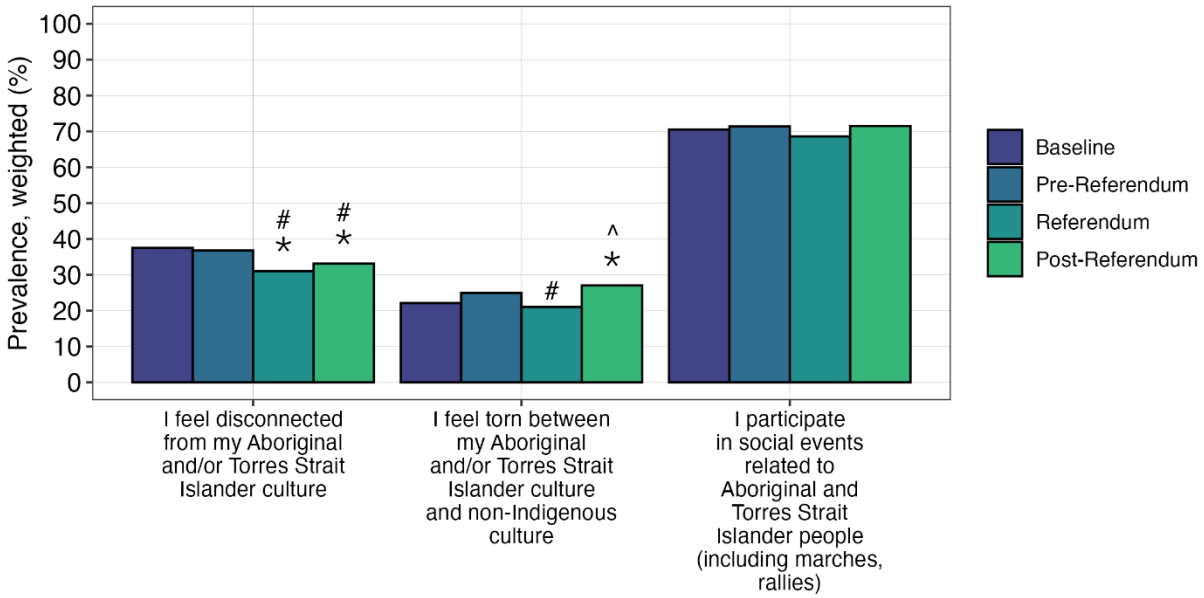

Figure 8. Weighted prevalence estimates for cultural connectedness variables over the four study periods.
** indicates significant change compared with Baseline.*
 # indicates significant change compared with Pre-Referendum period.
^ indicates significant change compared with Referendum period.

Health service use

Comprehensive health checks and high healthcare service use remains common (Figure 9, Table 3). An estimated 36.8% of Aboriginal and Torres Strait Islander adults accessed healthcare services monthly or more frequently during the Post-Referendum period, consistent with 34.0% in the Baseline period, 33.8% in the Pre-Referendum period, and 36.9% in the Referendum period.

The Mayi Kuwayu Study survey collects data on participants' completion of an Aboriginal and Torres Strait Islander Health Check ("715 Health Check") within the last year. During the Post-Referendum period, an estimated 54.4% had recently completed a Health Check. This was a significant increase of almost 12 percentage points compared to Baseline (42.9%), and consistent with levels during the Referendum period (53.6%) and Pre-Referendum period (52.5%).

An estimated 19.7% of Aboriginal and Torres Strait Islander adults had completed Mental Health First Aid training during the Post-Referendum period. This was a significant increase of around 4 percentage points compared to the Referendum period (15.4%). No significant change was observed when comparing the Post-Referendum period to the Pre-Referendum period (17.2%), and no data were available for this measure at Baseline.

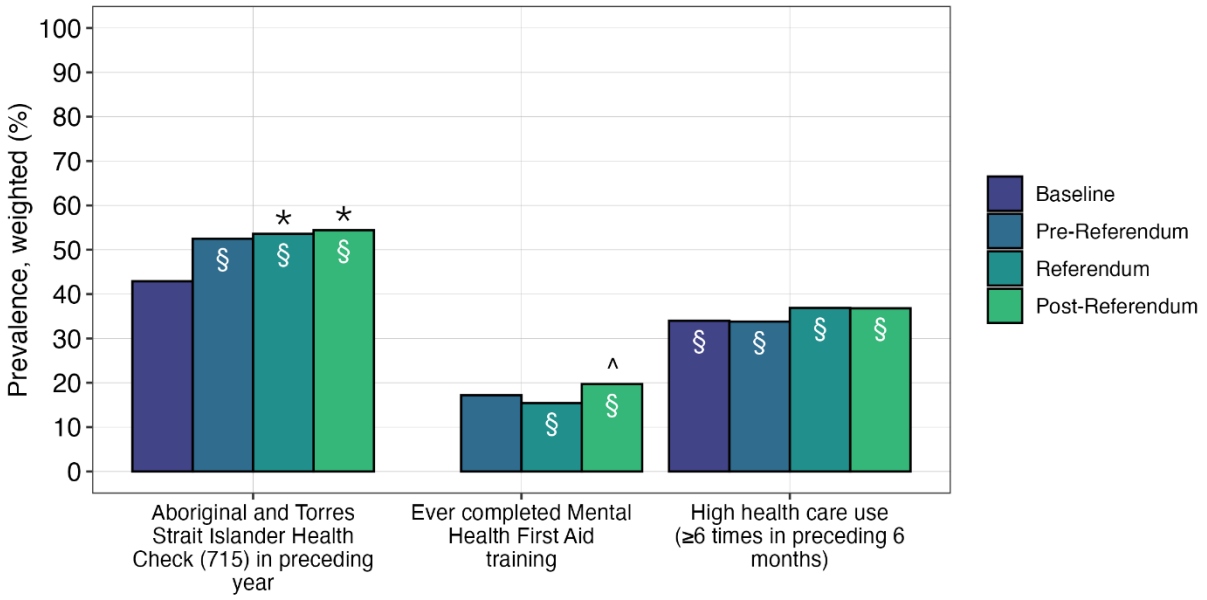

Figure 9. Weighted prevalence estimates for service use variables over the four study periods.

** indicates significant change compared with Baseline.*

 # indicates significant change compared with Pre-Referendum period.

^ indicates significant change compared with Referendum period.

The Mental Health First Aid training measure was introduced in Wave 2, hence no data are available for Baseline period (which uses Wave 1 data).

§ *indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias.*

Table 3: Prevalence of outcomes among Aboriginal and Torres Strait Islander adults in Baseline (Wave 1, 2018–2021), Pre-Referendum (Wave 2, Jan 2022–Jan 2023), Referendum period (Wave 2, 1 Feb 2023–14 Oct 2023), and Post-Referendum period (Wave 2, 15 Oct 2023–14 Oct 2024)

Outcome	Baseline (n=9,963) Weighted % (95% CI)	[Pop. #]	Pre-Referendum (n=2,176) Weighted % (95% CI)	[Pop. #]	Referendum (n=1,286) Weighted % (95% CI)	[Pop. #]	Post-Referendum (n=1,146) Weighted % (95% CI)	[Pop. #]
Experiences of discrimination and racism								
Any everyday discrimination	64.0 (62.8-65.3)	[316,000]	66.4 (63.9-68.9)	[328,000]	71.2 (68.1-74.2)*#	[352,000]	74.1 (71.0-77.2)*#§	[366,000]
Any healthcare discrimination	40.4 (38.8-41.9)	[200,000]	41.0 (37.7-44.3)	[202,000]	46.3 (42.2-50.4)*#	[229,000]	52.7 (48.6-56.9)*#^	[261,000]
Any vicarious racism‡	‡	‡	71.5 (69.2-73.8)	[353,000]	69.2 (66.1-72.3)	[342,000]	77.9 (75.0-80.7)#^	[385,000]
Mental health, SEWB, and physical health								
High/very high psychological distress	41.0 (39.4-42.5)	[202,000]	39.5 (36.0-42.9)	[195,000]	44.4 (40.1-48.6)*#	[219,000]	44.6 (40.1-49.1)*#	[220,000]
Anxiety	28.9 (27.2-30.5)	[143,000]	31.4 (27.9-34.9)	[155,000]	28.1 (23.5-32.8)#	[139,000]	34.0 (29.2-38.7)*^	[168,000]
Depression	31.7 (30.1-33.4)	[157,000]	32.8 (29.4-36.3)	[162,000]	31.4 (26.8-35.9)	[155,000]	32.3 (27.5-37.1)	[160,000]
PTSD‡	‡	‡	11.6 (7.6-15.5)	[57,000]	11.5 (6.4-16.7)	[57,000]	12.8 (7.4-18.2)	[63,000]
Risky alcohol use (≥6 drinks/day at weekly or greater frequency)	12.9 (11.0-14.8)	[64,000]	11.5 (7.5-15.6)	[57,000]	14.1 (8.9-19.3)#	[70,000]	11.3 (5.6-17.0)^	[56,000]
Good general health	72.8 (71.8-73.9)	[360,000]	65.1 (62.6-67.6)	[321,000]	60.4 (56.9-63.9)*#	[298,000]	58.9 (55.2-62.7)*#	[291,000]
High happiness	88.4 (87.7-89.1)	[437,000]	86.3 (84.7-87.8)	[426,000]	82.3 (80.0-84.7)*#	[407,000]	83.1 (80.7-85.5)*#	[410,000]
High life satisfaction	70.6 (69.6-71.7)	[349,000]	71.8 (69.6-74.1)	[355,000]	68.0 (64.9-71.1)#	[336,000]	68.2 (64.9-71.6)#	[337,000]
Family and community support								
In my family, we are always there for each other	81.0 (80.1-81.8)	[400,000]	78.9 (76.9-80.9)	[390,000]	76.3 (73.5-79.0)*	[377,000]	75.0 (72.0-78.1)*#	[371,000]
In my family, we get on together and cope in the hard times	76.5 (75.6-77.5)	[378,000]	78.5 (76.5-80.5)	[388,000]	69.7 (66.6-72.8)*#	[344,000]	71.9 (68.7-75.1)*#	[355,000]
In my family, we talk with each other about the things that matter	73.6 (72.6-74.7)	[364,000]	72.2 (70.0-74.5)	[357,000]	67.8 (64.6-71.0)*#	[335,000]	69.4 (66.0-72.7)*	[343,000]
In my family, people are accepted for who they are	82.1 (81.3-83.0)	[406,000]	78.2 (76.2-80.2)	[386,000]	73.5 (70.5-76.4)*#	[363,000]	74.7 (71.6-77.7)*#	[369,000]
In my family, we have good support from mob	62.3 (61.0-63.6)§	[308,000]	55.8 (52.9-58.7)	[276,000]	55.7 (52.0-59.5)*	[275,000]	58.2 (54.3-62.2)*	[288,000]
In my community, I feel like I belong	43.1 (41.6-44.7)	[213,000]	41.2 (38.0-44.5)	[204,000]	39.8 (35.4-44.2)*	[197,000]	43.5 (39.1-48.0)	[215,000]
Self-determination								
Feel in control of my life	79.5 (78.6-80.4)	[393,000]	81.3 (79.4-83.1)	[401,000]	77.0 (74.4-79.7)*#	[381,000]	80.8 (78.3-83.4)^	[399,000]

I can get involved in community discussions	27.6 (25.9-29.4)	[136,000]	25.8 (22.1-29.5)	[127,000]	24.7 (19.8-29.6)*	[122,000]	27.8 (22.7-32.8)	[137,000]
In my community, I feel listened to	32.0 (30.3-33.7)	[158,000]	31.7 (28.2-35.3)	[157,000]	29.6 (24.8-34.3)	[146,000]	30.1 (25.2-35.1)	[149,000]
Government has the final say in decisions about my community	50.2 (48.8-51.6)	[248,000]	48.0 (44.8-51.1)	[237,000]	45.9 (41.8-50.1)*	[227,000]	50.8 (46.7-55.0)^	[251,000]
Cultural connectedness								
I feel disconnected from my Aboriginal and/or Torres Strait Islander culture	37.5 (35.9-39.1)	[185,000]	36.8 (33.5-40.2)	[182,000]	31.0 (26.4-35.7)*#	[153,000]	33.1 (28.3-37.9)*#	[163,000]
I feel torn between my Aboriginal and/or Torres Strait Islander culture and non-Indigenous culture	22.1 (20.4-23.9)	[109,000]	24.9 (21.2-28.5)	[123,000]	21.0 (16.1-25.9)#	[104,000]	27.0 (22.1-32.0)*^	[134,000]
I participate in social events related to Aboriginal and Torres Strait Islander people (including marches, rallies)	70.5 (69.4-71.6)	[348,000]	71.4 (69.1-73.6)	[352,000]	68.6 (65.5-71.8)	[339,000]	71.5 (68.4-74.7)	[353,000]
Service use								
High health care use (≥6 times in preceding 6 months)	34.0 (32.0-35.9)§	[168,000]	33.8 (30.1-37.5)§	[167,000]	36.9 (32.0-41.7)§	[182,000]	36.8 (31.7-42.0)§	[182,000]
Aboriginal and Torres Strait Islander Health Check (715) in preceding year	42.9 (41.4-44.4)	[212,000]	52.5 (49.5-55.6)§	[260,000]	53.6 (49.6-57.7)*§	[265,000]	54.4 (50.1-58.7)*§	[269,000]
Ever completed Mental Health First Aid training‡	‡	‡	17.2 (13.3-21.2)	[85,000]	15.4 (10.1-20.7)§	[76,000]	19.7 (14.2-25.2)^§	[97,000]

The same post-stratification weighting approach was used across study periods, with the exception of a change in the categorisation of the remoteness variable used for weighting the Post-Referendum sample, due to small participant numbers in remote areas (details at Appendix II).
Pop. # = Population Number. This Table is based on participants with data on the outcome of interest; missing data are excluded.
** indicates a significant difference between weighted prevalence estimate compared to the Baseline period, with p-value for Z-test <0.05.*
 # indicates a significant difference between weighted prevalence estimate compared to the Pre-Referendum period, with p-value for Z-test <0.05.
^ indicates a significant difference between weighted prevalence estimate compared to the Referendum period, with p-value for Z-test <0.05.
‡ indicates an outcome variable not available in Wave 1; accordingly, no comparisons are made to the Baseline period.
§ indicates that missing data prevalence exceeded 10% in the sample for the respective period; interpret with caution due to potential for bias. Results where missing data prevalence is >40% in the sample for the respective period are not reported due to risk of bias.

Strengths and limitations

This analysis is based on data from the Mayi Kuwayu Study, an Aboriginal-led and governed study that adheres to principles of Indigenous Data Sovereignty, and includes over 10,000 Aboriginal and Torres Strait Islander adult participants.[1] The Study includes a holistic range of wellbeing outcomes, developed through community-based processes.

The intention of the Mayi Kuwayu Study is to capture diversity in participants, while enabling individual and community-level self-determination in participation.[2,3] As such, the sampling design is non-random. Accordingly, the sample is not intended to be representative of the total Aboriginal and Torres Strait Islander population. However, survey weights have been developed and applied to the sample, to improve our ability to make whole-of-population inferences based on the study sample. The weighting applied in this project was based on three benchmark variables (age, gender/sex, remoteness). The estimates of outcomes presented in the main text reflect the whole population; however, we acknowledge variation within the population and future reports, once adequate participant numbers are reached, may present estimates by age, gender, remoteness, and/or State/Territory groups. We note that all prevalence estimates are estimates only, and we have provided confidence intervals for all estimates to assist in interpretation. In particular, estimates should be interpreted with caution if confidence intervals are wide.

All variables analysed in the current project are based on self-report, with the exception of remoteness which is based on geocoding of addresses. Some of the experiences, such as discrimination, may be under-reported as participants may not have wanted to disclose their experiences.

Where we identify significant change in prevalence estimates over the study periods, this does not provide evidence of causal attribution to impacts related to the Referendum; rather it broadly identifies changes in the prevalence of the outcomes across the study periods. The changes observed across study periods in this analysis could result from multiple different causes and their interactions. Any observed difference (or lack of difference) should also be interpreted in the context of the slight modification to the weighting approach used for the Post-Referendum sample compared to previous samples (see Appendix I).

Discourse around the Referendum is but one of many stressors faced by Aboriginal and Torres Strait Islander peoples over the study periods. Other stressors may include major events that have occurred over the study periods such as the COVID-19 pandemic and responses to it; increasing cost of living pressures; extreme weather events (such as bushfires, floods, droughts); and other significant societal issues highlighted in the media, including those related to Indigenous social justice and community safety. Activities such as jurisdictional level treaty and truth-telling processes may also impact many of the outcomes analysed in this report. Regardless of the specific causes of the observed changes in outcomes, there is a need to address the impacts of the changes, including through providing services and supports to meet the needs of Aboriginal and Torres Strait Islander peoples.

This project is not about the views of Aboriginal and Torres Strait Islander peoples on the Referendum and did not collect or analyse any data about voting intentions.

Concluding remarks

The current report provides a snapshot of wellbeing outcomes in the first twelve months following the Referendum vote. It includes data from 1,146 Aboriginal and Torres Strait Islander adults, weighted to generate estimates for the total Aboriginal and Torres Strait Islander population. The current analysis expands the Post-Referendum analysis provided in Report 6 which looked at results from 6 months following the Referendum. A future report will expand the Post-Referendum analysis to cover a longer time window (18 months) and include additional participants.

Previous reports in this series identified significant and substantial threats to wellbeing during the Referendum period, with increases in experiences of discrimination and psychological distress, and decreases in health and wellbeing, family support, and self-determination, compared to earlier periods. A preliminary analysis of Post-Referendum data identified that wellbeing had not rebounded 6 months Post-Referendum, and in some cases, it had worsened.

This analysis builds on the early Post-Referendum analysis. It finds that experiences of discrimination, psychological distress, general health, happiness, and family and community wellbeing remain worse Post-Referendum compared to baseline. Experiences of healthcare discrimination, vicarious racism and doctor-diagnosed anxiety have continued to increase from levels observed during the Referendum period. Some measures of cultural connectedness improved during both the Referendum and Post-Referendum periods compared to earlier period/s, while other measures have become worse than both the Referendum and Baseline periods.

These quantitative findings are consistent with concerns expressed by Aboriginal and Torres Strait Islander participants in focus groups conducted earlier in this project (Report and summary factsheets available online: https://yardhurawalani.com.au/mental-health-and-wellbeing-around-the-voice-to-parliament-referendum/).

Key elements of Aboriginal and Torres Strait Islander wellbeing remain strong, including high happiness, high life satisfaction, and feelings of life control, despite high—and escalating—burdens of discrimination and racism. However, we observe significant and substantial declines in other key aspects of wellbeing, with critically high estimated prevalences of diagnosed anxiety (34%) and high/very high psychological distress (45%), and with only 59% of the population experiencing good general health. Where high wellbeing endures, this is likely to be underpinned by high levels of family and community support and strong connection to culture. In previous reports, we identified the erosion of measures of family and community support during the Referendum period, but noted strengthening of some measures of cultural connectedness. In the current analysis of wellbeing in the Post-Referendum period, we observe that some of these measures of cultural connectedness have improved Post-Referendum while others have worsened. Any enduringly high levels of wellbeing may be under threat as the impact of the erosion of these key supports is increasingly felt. Although overall wellbeing among Aboriginal and Torres Strait Islander peoples has remained relatively high, the gradual erosion of the key factors that sustain this wellbeing—such as family and community support and cultural connectedness—signals a growing threat to wellbeing. These foundational supports, which have traditionally acted as buffers against the burdens of discrimination and racism, have been weakened, leaving wellbeing at significant risk in the current context. The Post-Referendum findings highlight the importance of additional supports for wellbeing and mental health to be made available to Aboriginal and Torres Strait Islander peoples beyond the Referendum period.[4] These findings support community calls for work that addresses racism and discrimination and builds self-determination at all levels. The path forward must be guided by a decolonised and collectivist approach that recognises and values the interconnection between an individual and their family, community, culture and Country.[5] As such, holistic services to support family and community wellbeing and connection to culture are essential complements to services focused on individual wellbeing.

Our findings on discrimination and racism align with reports from the national helpline 13YARN, a First Nations crisis support service. Aboriginal and/or Torres Strait Islander people's calls to the helpline increased by 40% during the Referendum campaign; Post-Referendum, over a quarter of calls (26%) have been from people experiencing distress caused by racism – up from 16% in 2022 and 19% in 2023.[6] While our results do not provide evidence of causality, the observed contemporaneous increases in discrimination/racism and psychological distress/anxiety are consistent with a causal contribution of racism to the increasing burden of poor mental health.[7]

The totality of evidence on the continuing escalation of racism prevalence, combined with known negative impacts on the wellbeing of individuals and communities, supports the notion that racism is a public health crisis in Australia.[8] It is important to acknowledge the pervasiveness of racism and discrimination experienced by Aboriginal and Torres Strait Islander peoples, and to recognise that these experiences have increased since the Referendum campaign began.[5] While the Referendum process has concluded, continued and urgent attention is needed to address racism and discrimination: now more than ever.

Appendix I: Methods

Overview of the Mayi Kuwayu Study

Mayi Kuwayu: the National Study of Aboriginal and Torres Strait Islander Wellbeing, is currently the largest longitudinal study of Aboriginal and Torres Strait Islander adults, with over 10,000 participants to date.[1] The Mayi Kuwayu Study is an Aboriginal and Torres Strait Islander-led and governed data resource designed to provide evidence on culture and its relationship to wellbeing. All individuals aged 16 years and older identifying as Aboriginal and/or Torres Strait Islander are eligible to participate.

Participants can complete the survey on paper, online, or face-to-face with a community researcher, as part of the longitudinal Mayi Kuwayu Study. Participants in the Wave 1 (baseline) survey will be followed up by survey every few years, and new participants are able to join the study at any time. Wave 1 (baseline) surveys were completed between June 2018 and May 2021.

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.[2,3] The baseline sample has broad representation from across Australia, with more than 150 communities represented.[2]

Mayi Kuwayu Study surveys include items measuring demographic factors; cultural practice and expression; wellbeing, health conditions, medications use, health behaviours, and health service use; and environments and experiences.[2] Survey items for the baseline questionnaire were developed based on literature review and extensive community consultation with a total of 165 Aboriginal and Torres Strait Islander people attending 24 focus groups across Australia from 2014 to 2017.[9] The aim of the survey development process was to develop robust measures of wellbeing that capture important concepts as determined by Aboriginal and Torres Strait Islander peoples, capturing heterogeneity within the population.[1] Follow-up surveys maintain the core components of the baseline survey.[9] Modifications to the survey are made through an Aboriginal-led survey redesign process, incorporating feedback from participants and community researchers, evidence of psychometric validity of measures, and evolving community priorities.

Ethics

The Mayi Kuwayu Study is Aboriginal and Torres Strait Islander-led and governed, and is underpinned by principles of Indigenous Data Sovereignty.[10] Participation in the Mayi Kuwayu Study 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 Study Data Governance Committee (Reference Number: D230319). All variables and analyses were pre-specified in the approved application to the Data Governance Committee. Aboriginal or Torres Strait Islander peoples were involved through all stages of this research.

Data used for analysis for this Report

This analysis is intended to provide a snapshot of health and wellbeing during the Referendum period (February 2023–14 October 2023), in comparison to the Pre-Referendum period (January 2022–January 2023), Baseline (June 2018–May 2021) and Post-Referendum period (15 October 2023–14 October 2024). This report focuses on participants aged 18 years and over, as some benchmark variables (that

enable weighting of the sample) were only available for the population aged 18 years and over, and there was a relatively small number of participants aged 16–17 years.

Data used for analysis for this report are from both Wave 1 and Wave 2 of the Mayi Kuwayu Study. The Wave 1 sample includes 9,963 Aboriginal and/or Torres Strait Islander adults who completed the Wave 1 Mayi Kuwayu Study survey in 2018–2021 and who were 18 years or over at the time of survey. The Pre-Referendum sample includes 2,176 Aboriginal and/or Torres Strait Islander adults who completed the Wave 2 Mayi Kuwayu Study survey between January 2022 and January 2023 and who were 18 years or over at the time of survey. The Referendum period sample includes 1,286 Aboriginal and/or Torres Strait Islander adults who completed the Wave 2 Mayi Kuwayu Study survey between February 2023 and 14 October 2023 and who were 18 years or over at the time of survey. The Post-Referendum period sample includes 1,146 Aboriginal and/or Torres Strait Islander adults who completed the Wave 2 Mayi Kuwayu Study survey between 15 October 2023 and 14 October 2024 and who were 18 years or over at the time of survey. The analysis conducted for this report involved comparing the estimated population prevalence across time points, based on weighted data from each sample. This was not a longitudinal analysis; that is, we did not examine changes within individuals across periods.

Variables

This report analyses data across a broad range of health and wellbeing and service use variables, and demographic characteristics. Variable selection was informed by literature review and stakeholder engagement (Report 1). The aim was to include a diversity of positive and negative wellbeing-related outcomes that might be impacted by the Referendum, and to provide insight into what services and/or resources might be needed to support Aboriginal and Torres Strait Islander adults. Table 4 provides details and definitions of each variable.

Table 4: Definition of variables used for analysis

Variable	Survey question	Response options and categorisation	Question #	
			W1	W2
Demographic factors				
Age group	Participants are asked to fill in their Date of birth (day/month/year).	Age in years is 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 are recoded to missing (.). In the continuous variable. Age group is categorised as: (0) 18-39 years; (1) 40-59 years; (2) ≥60 years.	Q29	Q37
Gender	In Wave 1, participants are asked, 'What is your gender?' In Wave 2, participants are asked, 'I am…' (select all that apply).	Response options in Wave 1 are: (1) male, (2) female, (3) other; (.) indicates missing responses. Response options in Wave 2 are: (1) a man, (2) a woman, (3) transgender, (4) non-binary, (5) I identify another way, as …, (6) prefer not to say . There are a small number of persons identifying as a gender other than man or woman. Therefore, we cannot present data for this group on their own, and we cannot include this category when gender is used as a stratification variable. A variable including those identifying as men and women only is used for all stratified and adjusted analyses: (0) man, (1) woman. However, participants identifying as another gender are included in analyses of the overall sample and any analyses that are not adjusted for or stratified by gender.	Q28	Q35

Variable	Survey question	Response options and categorisation	Question #	
			W1	W2
Remoteness	Participants are asked to fill in their home address (Suburb/Town, State/Territory, Postcode).	Remoteness is derived based on geocoded address data, categorised according to Australian Statistical Geography Standard remoteness categories: major cities, inner regional, outer regional, remote, and very remote. To create relatively equal groupings, these five categories are collapsed into three: (0) major cities; (1) inner or outer regional areas; (2) remote or very remote areas.	--	--
State/Territory	Participants are asked to fill in their home address (Suburb/Town, State/Territory, Postcode).	State/Territory is based on geocoded address.	--	--
Identification as Aboriginal and/or Torres Strait Islander	Participants are asked to identify as Aboriginal and/or Torres Strait Islander.	Response options are: Aboriginal, Torres Strait Islander, Both Aboriginal and Torres Strait Islander, Neither Aboriginal or Torres Strait Islander. Each response is coded as its own category. Participants identifying as Neither Aboriginal or Torres Strait Islander are asked to discontinue.	Q1	--
Highest formal education qualification	Participants are asked, 'What is the highest education you have completed?'	Response options are: 'No school', 'Primary school', 'Some high school', 'Year 10 (School or Intermediate certificate)', 'Year 12 (Higher school, leaving certificate, College)', 'Certificate or diploma (such as child care worker, mechanic)', 'University'. Coded as (0) Up to school year 10 or intermediate certificate (1) School year 12 or beyond, including certificate or diploma.	Q41	Q54
Family financial security	Participants are asked, 'which words best describe your family's money situation?'	Response options: 'We have a lot of savings', 'We have some savings' – categorised as (1) Some, or a lot, of savings; 'We have just enough to get us to the next payday' – categorised as (2) Just enough money; 'We run out of money before payday', 'We are spending more than we get' – categorised as (3) Run out of money or spend more than is earnt; 'Unsure' – categorised as (4) Unsure.	Q43	Q61
Mental health, SEWB, and physical health outcomes				
Psychological distress	The Kessler Psychological Distress Scale is designed to identify generalised psychological distress, based on a set of items about anxiety and depressive symptoms over the preceding four weeks. The Mayi Kuwayu Study includes a modified Kessler-5 scale (MK-K5), which has been validated for use within the population. Participants are asked, 'In the last 4 weeks about how often did you …' for 8 prompts (bolded prompts indicate the MK-K5 questions): 1. … feel happy? 2. … feel worried? **3. … feel nervous?** **4. … feel hopeless (have no hope)?** [original K5 wording: "without hope"] **5. … feel restless or jumpy?** **6. … feel everything was an effort (have no energy)?** [original K5 wording does not include clarifier (have no energy)] **7. … feel sad?** [K5 wording: "so sad that nothing could cheer you up?"] 8. … feel pain? (If yes, what kind of pain:_____)	Response options are: 'All of the time' (5), 'Most of the time' (4), "'Some of the time' (3), 'A little of the time' (2), or 'None of the time' (1). This is the same response option and response ordering as used in the ABS survey. The MK-K5 total score is a sum of the 5 MK-K5 items, range: 5-25. MK-K5 total score is missing in the original sample if any of the individual items were missing. A binary MK-K5 distress variable is created: Low or moderate distress (5-11) (coded as 0); High or very high psychological distress (12-25) (coded as 1). Participants with scores of 12 or above are categorised as having high or very high psychological distress, according to commonly-used K5 cut-offs.	Q50	Q65

Variable	Survey question	Response options and categorisation	Question #	
			W1	W2
Anxiety	Participants are asked to state if they regularly took any medicine in the last month, and what the medicine is for. They were then asked to state if a Doctor had ever told them that they had a range of health-related conditions. For each medication and each condition, participants ticked the box if they had ever used the medication or ever had the condition.	Anxiety was listed as one of the response options on both questions. Those who did not select anxiety in either question are coded as 0, noting that this represents participants who answered no as well as participants who did not answer the question – it is not possible to distinguish between the two. Those who selected anxiety in either question (i.e. indicating ever taking medications for anxiety, or ever being diagnosed with anxiety by a Doctor) are coded as 1.	Q52, Q53	Q67, Q68
Depression	Participants are asked to state if they regularly took any medicine in the last month, and what the medicine is for. They were then asked to state if a Doctor had ever told them that they had a range of health-related conditions. For each medication and each condition, participants ticked the box if they had ever used the medication or ever had the condition.	Depression was listed as one of the response options on both questions. Those who selected depression in either question (i.e. indicating ever taking medications for depression, or ever being diagnosed with depression by a Doctor) are coded as 1. Those who did not select Depression in either question are coded as 0, noting that this represents participants who answered no as well as participants who did not answer the question – it is not possible to distinguish between the two.	Q52, Q53	Q67, Q68
Post-traumatic stress disorder (PTSD)	W2 only: Participants are asked to state if they regularly took any medicine in the last month, and what the medicines for. They were then asked to state if a Doctor had ever told them that they had a range of health-related conditions. For each medication and each condition, participants ticked the box if they had ever used the medication or ever had the condition.	Post-traumatic stress disorder (PTSD) was listed as one of the response options on both questions. Those who selected depression in either question (i.e. indicating ever taking medications for PTSD, or ever being diagnosed with PTSD by a Doctor) are coded as 1. Those who did not select PTSD in either question are coded as 0, noting that this represents participants who answered no as well as participants who did not answer the question – it is not possible to distinguish between the two.	Not asked in W1	Q67, Q68
Life satisfaction	Participants are asked, 'How satisfied are you with your life?'	Response options are: 'A lot', 'A fair bit' – categorized as high satisfaction; 'A little bit', 'Not at all' – categorized as low satisfaction.	Q48	Q63
General health	Participants are asked, 'How would you rate your general health?'	Response options are: (1) excellent (2) very good (3) good – categorised as 'good health' (4) fair (5) poor – categorised as 'not good health'.	Q47	Q62
Happiness	Prompt 1 in the Kessler Psychological Distress Scale (refer to 'psychological distress' variable)	Response options are: 'All of the time' (5), 'Most of the time' (4), "'Some of the time' (3) – categorised as 'High happiness'; 'A little of the time' (2), or 'None of the time' (1) – categorised as 'low happiness'.	Q50	Q65
Risky alcohol use	Participants are asked, 'Do you drink alcohol?' If they state Yes, they are then asked, 'How often do you have six or more drinks in one day?'	Response options for the first question are: 'Yes', 'I drank in the past, but don't drink now', 'I have never been a drinker'. Those who answered 'Yes' were directed to the second question. Response options for the second question are: 'Never', 'Less than once a month', 'Monthly', 'Weekly', 'Daily or most of the days'. Participants who selected 'I drank in the past, but don't drink now', or 'I have never been a drinker' to the first question, or selected 'Never', 'Less than once a month', 'Monthly' to the second question – categorised as 'No risky alcohol use'. Participants who selected 'Weekly' or 'Daily or most of the days' to the second question – categorised as 'Risky alcohol use'.	Q60, Q63	Q81, Q81c
Experiences of discrimination & racism				

Variable	Survey question	Response options and categorisation	Question #	
			W1	W2
Experience of discrimination in everyday life	Participants are asked, 'How often do these things happen to you?' [note: no time window provided]. There are 8 prompts: [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 measure used in W1 has been validated for use within the population. Slight modifications were made to the wording of items in W2, and additional items were added (analysed separately as vicarious racism, below).	The response options for each item are 'not at all' (0), 'a little bit' (1), 'a fair bit' (2), or 'a lot' (3). Items are coded as '.' if missing data. The total score is calculated by summing responses to all 8 items (range: 0 to 24); the total score is only created for participants with complete data across the items. For the current analysis, participants are coded as experiencing 'any' (score=1-24/24) versus no (score=0) everyday discrimination.	Q95	Q90
Experience of discrimination in health care	Participants are asked, 'How often do these things happen to you when you receive health care?' There are 4 prompts: [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 measure used in W1 has been validated for use within the population. Slight modifications were made to the wording of items in W2, and additional items were added (not analysed in the current report).	The response options for each item are 'not at all' (0), 'a little bit' (1), 'a fair bit' (2), or 'a lot' (3). The total score is calculated by summing responses to all 4 items (range: 0 to 12); the total score is only created for participants with complete data across the items. For the current analysis, participants are coded as experiencing 'any' (score=1-12/12) versus no (score=0) discrimination in health care	Q98	Q93
Vicarious racism	W2 only: Participants are asked, 'How often do these things happen to you?' There are 3 prompts related to this variable: [1] People make jokes about Aboriginal/Torres Strait Islander people in front of me. [2] People make insulting comments about Aboriginal/Torres Strait Islander people in front of me. [3] I witness other Aboriginal/Torres Strait Islander people being treated unfairly.	The response options for each item are 'not at all' (0), 'a little bit' (1), 'a fair bit' (2), or 'a lot' (3). The total score is calculated by summing responses to all 3 items (range: 0 to 9); the total score is only created for participants with complete data across the items. For the current analysis, participants are coded as experiencing 'any' (score=1-9/9) versus no (score=0) vicarious racism.	Not asked in W1	Q90
Self-determination				
Feel in control of my life	Participants are asked, 'How much are you in control of your life?'	Response options are: 'A lot', 'A fair bit' – categorized as 'Feel control'; 'A little bit', 'Not at all' – categorized as 'no control'.	Q49	Q64
I can get involved in community discussions	Participants are asked, 'In the Aboriginal/Torres Strait Islander community where I live now…' for a set of prompts. The prompt for this variable is 'I can get involved in community discussions.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Participate'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No participation'	Q27	Q34
In my community, I feel listened to	Participants are asked, 'In the Aboriginal/Torres Strait Islander community where I live now...' for a set of prompts. The prompt for this variable is 'I feel listened to.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No'	Q27	Q34
Government has the final say in decisions about my community	Participants are asked, 'In the Aboriginal/Torres Strait Islander community where I live now...' for a set of prompts. The prompt for this variable is 'government has the final say in decisions about the community.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No'.	Q27	Q34
Cultural connectedness				
Feeling disconnected from your Aboriginal and/or Torres Strait Islander culture	Participants are asked, 'Have you ever felt disconnected from Aboriginal/Torres Strait Islander culture?'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No'.	Q26	Q32

Variable	Survey question	Response options and categorisation	Question #	
			W1	W2
Feeling torn between your Aboriginal and/or Torres Strait Islander culture and non-Indigenous culture	Participants are asked, 'Do you feel torn between your culture and non-Indigenous culture?'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No'.	Q17	Q15
I participate in social events related to Aboriginal and Torres Strait Islander people (including marches, rallies)	The prompt for this item is: 'These are things that Aboriginal/Torres Strait Islander people have said are important to their culture. Not all people do these things, and that doesn't make you more or less Aboriginal/Torres Strait Islander.' Participants are asked, 'How much time do you spend…' for a set of prompts, The prompt for this variable is 'Participating in social events related to Aboriginal/Torres Strait Islander people (such as NAIDOC week, Sorry Day events, cultural festivals, corroborree, marches or rallies)?'	Responses options are: 'A little bit', 'A fair bit', 'A lot' – categorized as 'Yes'; 'Want to but can't', 'Not at all' – categorized as 'No'	Q25	Q29
Family and community support				
In my family, people are always there for each other	Participants are asked, 'In my family…' for a set of prompts. The prompt for this variable is 'We are always there for each other.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit' – categorized as 'No'.	Q103	Q98
In my family, we get on together and cope in the hard times	Participants are asked, 'In my family…' for a set of prompts. The prompt for this variable is 'We get on together and cope in the hard times.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit' – categorized as 'No'.	Q103	Q98
In my family, we talk with each other about the things that matter	Participants are asked, 'In my family…' for a set of prompts. The prompt for this variable is 'We talk with each other about the things that matter.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit' – categorized as 'No'.	Q103	Q98
In my family, people are accepted for who they are	Participants are asked, 'In my family…' for a set of prompts. The prompt for this variable is 'People are accepted for who they are.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit' – categorized as 'No'.	Q103	Q98
In my family, we have good support from mob	Participants are asked, 'In my family…' for a set of prompts. The prompt for this variable is 'We have good support from mob.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit' – categorized as 'No'.	Q103	Q98
In my community, I feel like I belong	Participants are asked, 'In the Aboriginal/Torres Strait Islander community where I live now...' for a set of prompts. The prompt for this variable is 'I feel like I belong.'	Responses options are: 'A lot', 'A fair bit' – categorized as 'Yes'; 'Not at all', 'A little bit', 'Unsure' – categorized as 'No'.	Q27	Q34
Service use and programs				
High health care use (≥6 times in preceding six months)	Participants are asked, 'In The last 6 months, how many times have you seen a health provider about your health?'	Responses categorised as (0) 0-5; (1) 6 or more.	Q58	Q78
Aboriginal and Torres Strait Islander Health Check (715) in preceding year	Participants are asked, 'Have you had an Aboriginal/Torres Strait Islander Health Check in the last year? Also called an Adult Health Check or 715.'	Response options are: 'Yes' – categorised as 'Yes'; 'No' – categorised as 'No'.	Q59	Q75
Ever completed Mental Health First Aid training	W2: Participants are asked, 'Have you ever participated in… Mental health first aid training?'	Response options are: 'Yes' – categorised as 'Yes'; 'No', 'want to but can't' – categorised as 'No'.	Not asked in W1	Q77

Weighted prevalence for these variables, along with 95% Confidence Intervals, are estimated for the study periods. *Non-overlapping* confidence intervals (e.g. the 95% confidence intervals reported in individual prevalence estimates) provide evidence of significant differences. In addition, in some cases a difference can still be significant even when the confidence intervals overlap; a Z-test can be used to

detect these differences.[11] Weighted prevalence estimates from the Referendum period were compared to those from the Baseline period and the Pre-Referendum period by conducting two-proportions Z-tests, using a significance level of 0.05. Similarly, weighted prevalence estimates from the Post-Referendum period were compared to those from the Baseline period, the Pre-Referendum period and the Referendum period, using the same approach. Results are shown with symbols in the Figures and Tables (as described in the relevant Figure legend or Table caption).

Where participants are missing data on a variable of interest, a separate category is included for missing, or participants who are missing data on the variable are excluded from the specific analysis, as indicated. To protect confidentiality, all cells representing fewer than five people are suppressed, except for the missing category, which poses no risk to identification.

Analysis was conducted using R (version 4.3.0) and RStudio (Build 576).

Weighting of Mayi Kuwayu Study data from Waves 1 & 2

The Mayi Kuwayu Study sample is not intended to be representative of the total Aboriginal and Torres Strait Islander population. Longitudinal survey samples are generally not designed to be representative of the population of interest, but are intended to capture diversity within the population that is often missed in other survey designs.[9]

A statistical approach to weighting has been applied to the Mayi Kuwayu Study sample to generate population-representative estimates from the survey sample. We also generated 95% confidence intervals around each estimate, to provide a plausible range of values for the weighted estimate. Compared to crude prevalence estimates (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, gender/sex, and remoteness, as they were considered to represent key sources of variation in outcomes. The same benchmark variables are used for weighting each dataset across Reports (Wave 1, and each Wave 2 data cut). Given expected sample size for the Wave 2 data cuts, and associated statistical power, we selected three variables to use as benchmark variables; inclusion of additional benchmark variables would require a larger sample size to generate robust results. These benchmark variables were based on population distributions according to the 2021 Census.

Across study periods, remoteness was included as a benchmark variable for weighting. In the first three periods, a three-category variable for remoteness was used (major cities, inner regional and outer regional areas, and remote and very remote areas); in the Post-Referendum period, a collapsed variable (major cities, regional and remote) was employed due to small participant numbers within remote areas. This difference in weighting approach should be considered when interpreting differences between the Post-Referendum period and other study periods.

Weighted prevalence estimates were applied to population counts to generate an estimated total number of Aboriginal and Torres Strait Islander adults nationally with each outcome of interest. Population estimates were based on the 2021 Census: a total population size of 494,000 Aboriginal and Torres Strait Islander adults aged 18 years and over. The population number for each outcome is generated by applying a scale factor to the weighted number from the Mayi Kuwayu Study sample (the ratio of total Aboriginal and/or Torres Strait Islander population in 2021 aged 18 years and over to the Mayi Kuwayu Study sample size for the respective period). All population figures reported are rounded to the nearest thousand.

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