







# Countering stereotypes: Exploring the characteristics of Aboriginal Australians who do not drink alcohol in a community representative sample

James H. Conigrave<sup>1,2,3,4</sup>  | Scott Wilson<sup>4,5</sup> | Katherine M. Conigrave<sup>1,2,6</sup>  | Jimmy Perry<sup>4,5</sup> | Noel Hayman<sup>7,8,9</sup> | Tanya N. Chikritzhs<sup>10</sup>  | Dan Wilson<sup>11</sup> | Catherine Zheng<sup>1,4</sup>  | Teagan J. Weatherall<sup>1,4</sup>  | K. S. Kylie Lee<sup>1,2,4,10,12</sup> 

<sup>1</sup>Faculty of Medicine and Health, Central Clinical School, The University of Sydney, Sydney, Australia

<sup>2</sup>The Edith Collins Centre (Translation Research in Alcohol, Drugs and Toxicology), Sydney Local Health District, Sydney, Australia

<sup>3</sup>Institute of Positive Psychology and Education, Australian Catholic University, Sydney, Australia

<sup>4</sup>Centre for Alcohol Policy Research, La Trobe University, Melbourne, Australia

<sup>5</sup>Aboriginal Drug and Alcohol Council South Australia, Adelaide, Australia

<sup>6</sup>Royal Prince Alfred Hospital, Drug Health Services, Sydney, Australia

<sup>7</sup>Southern Queensland Centre of Excellence in Aboriginal and Torres Strait Islander Primary Health Care, Inala Indigenous Health Service, Brisbane, Australia

<sup>8</sup>School of Medicine, Griffith University, Brisbane, Australia

<sup>9</sup>School of Medicine, University of Queensland, Brisbane, Australia

<sup>10</sup>Faculty of Health Sciences, National Drug Research Institute, Curtin University, Perth, Australia

<sup>11</sup>Alice Springs Hospital, NT Health, Alice Springs, Australia

<sup>12</sup>Burnet Institute, Melbourne, Australia

## Correspondence

James H. Conigrave, Centre for Alcohol Policy Research, La Trobe University, Melbourne, VIC, Australia  
Email: [j.conigrave@latrobe.edu.au](mailto:j.conigrave@latrobe.edu.au)

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## Abstract

**Introduction:** Contrary to stereotypes, Aboriginal and Torres Strait Islander Australians are more likely to abstain from drinking than other Australians. We explored characteristics and experiences of Aboriginal and Torres Strait Islander Australians who do not drink alcohol.

**Method:** We conducted a cross-sectional, representative survey of 775 Aboriginal and Torres Strait Islander Australians (16+ years) in remote and urban South Australia. We explore correlates of not drinking alcohol using multi-level logistic regression. We describe reasons for non-drinking and harms participants experienced in past 12 months from others' drinking.

**Results:** Non-drinking participants were more likely to be older (OR 1.35 [95% CI 1.21, 1.50] per decade) and unemployed (OR 2.72 [95% CI 1.77, 4.20]). Participants who spoke Aboriginal Australian languages at home were three times more likely to be lifetime abstainers from drinking (OR 3.07 [95% CI 1.52, 6.21]). Common reasons for not drinking alcohol were health and family. Most did not report

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harms from others' alcohol consumption (79.6%, 76.9%, urban and remote respectively). Stress from others' alcohol consumption was the most reported harm by non-drinkers (14.5% and 23.1%, urban and remote, respectively).

**Discussion and Conclusions:** Culture such as speaking Aboriginal Australian languages might have protective effects that promote abstaining but was rarely explicitly cited as a reason for not drinking. A greater understanding of local values held by people who do not drink alcohol could help inform health messaging and other interventions to reduce alcohol-related harms. Understanding local reasons for abstaining can help tailor health messaging to suit local contexts.

#### KEYWORDS

Indigenous Australian, Aboriginal, non-drinking, abstain, Grog Survey App

#### Key Points

- Non-drinking Aboriginal and Torres Strait Islander Australians are more likely to be older and unemployed.
- People who spoke Aboriginal Australian languages at home were three times more likely to be lifetime abstainers from drinking alcohol.
- Health and family were the most common reasons given for not drinking alcohol.
- Most Aboriginal and Torres Strait Islander Australians who abstained from drinking alcohol did not report experiencing harms from others who drink within the past year.
- Of the harms reported, stress was the most common.
- Understanding local reasons for abstaining from drinking alcohol could be useful for tailoring health promotion campaigns.

## 1 | INTRODUCTION

Contrary to stereotypes [1], Aboriginal and Torres Strait Islander Australians are more likely to abstain from drinking alcohol than other Australians [2, 3]. While there is extensive research on at-risk drinking among Aboriginal and Torres Strait Islander Australians [4], there is less emphasis on the characteristics and experiences of people who do not drink, other than qualitative studies exploring the characteristics of former drinkers [5]. What factors lead some Aboriginal and Torres Strait Islander Australians to abstain from drinking alcohol? Gaining a better understanding of the demographics and experiences of Aboriginal and Torres Strait Islander peoples who do not drink alcohol could be useful when tailoring health messaging and efforts to reduce alcohol-related harm.

British colonisation of Australia has had far-reaching and profound impacts on Aboriginal and Torres Strait Islander peoples, including loss of land, culture, language; threats to self-determination; and ongoing discrimination and marginalisation [6]. Relative to other Australians, Aboriginal and Torres Strait Islander peoples have reduced educational and economic opportunities [6]. These disadvantages and stressors have for some, at

times, resulted in increased risky drinking or dependence [6]. Alcohol further exacerbates disadvantage by worsening mental health and causing injuries and chronic disease [7, 8].

Aboriginal communities have identified risky alcohol consumption as a key concern [9]. Globally, alcohol is the leading risk factor for premature death and disability (age 15–49 years) [8], which may be relevant for Aboriginal and Torres Strait Islander Australians who are a younger population compared with their non-Indigenous counterparts [10]. Half of the burden of disease faced by Aboriginal and Torres Strait Islander Australians is modifiable, and addressing harmful alcohol consumption, after tobacco, would reduce this burden of disease the most [11].

Aboriginal and Torres Strait Islander communities have a strong history of leading efforts to reduce harms from drinking [12]. There are many examples of communities who have established prevention programs targeting health risk behaviours such as drinking alcohol [13, 14], men's and women's groups [15, 16], night patrols [17] and community-led drug and alcohol residential rehabilitation programs [18]. Accordingly, many Aboriginal and Torres Strait Islander Australians are

aware of the harms of drinking alcohol and are engaged in countering those harms. Perhaps this concern partly explains why Aboriginal and Torres Strait Islander Australians are more likely to abstain from drinking alcohol than other Australians [2, 3].

Having a strong cultural identity and positive role models can help prevent uptake of drinking alcohol [19]. But having friends that drink can override these protective factors [19]. What motivates Aboriginal and Torres Strait Islander Australians to not drink alcohol? Decisions to abstain from alcohol are likely varied and personal [20], but might be rooted in concerns about health, family, community, culture or merely due to alcohol being harder to obtain in some communities with alcohol restrictions.

Aboriginal and Torres Strait Islander people who do not drink alcohol remain a group that is largely undescribed, with almost all research focusing on people engaged in at-risk drinking [4]. Better understanding who is most likely to abstain from drinking alcohol, and why, is important to inform health promotion and prevention. To address this knowledge gap, in this paper we describe demographic characteristics of Aboriginal and Torres Strait Islander Australians who do not drink alcohol, their reasons for not drinking alcohol, and their experience of alcohol-related harms.

## 2 | METHODS

### 2.1 | Study design

We conducted a cross-sectional, representative study of two Aboriginal Australian communities.

### 2.2 | Aboriginal leadership and ethics

This study is part of a larger project ('Grog Survey App') co-conceived by an Aboriginal Australian health professional (SW) and a non-Indigenous researcher (KL). The Grog Survey App was co-designed with the Aboriginal Drug and Alcohol Council of South Australia (SW, JP), researchers from the University of Sydney (KL and KC), and Aboriginal Australian and non-Indigenous Australian health professionals, researchers and community members from remote through to urban settings [21]. An iterative consultation process was used during development. Ethical approval was obtained from the Aboriginal Health Council of South Australia (Ref: 04/15/621) and, as this study was part of a larger survey of alcohol consumption, from the Metro South Health Human Research Ethics Committee in Queensland (Ref:

HREC/16/QPAH/293). Four authors are themselves Aboriginal Australian (SW, NH, JP and TW).

### 2.3 | Setting

Two Aboriginal Australian communities, one urban and one remote, in the state of South Australia, took part in the study. Community names are withheld to preserve their anonymity. There were no restrictions on the sale or purchase of alcohol in either community.

The urban community was in Adelaide, the capital city of South Australia. Around 2% of the total adult population (aged 16+ years) in the urban community are Aboriginal and/or Torres Strait Islander Australian [10]. The remote community was classified as 'very remote Australia' (by the Australian Standard Geographical Classification—Remoteness Area) [22] and more than half of the adult population ( $n = 57$ , 53%; aged 16+ years) were Aboriginal and/or Torres Strait Islander Australian [10].

### 2.4 | Eligibility

Community members in both sites were eligible to participate in the study if they were aged 16+ years and self-identified as being Aboriginal and/or Torres Strait Islander. Participants were required to be currently residing in the community (as defined by the variable 'Indigenous location' created by the Australian Bureau of Statistics in their population census data) [10], except where they did not have a permanent residence (e.g., living in a hostel, living rough, homeless or 'couch surfing').

### 2.5 | Recruitment

#### 2.5.1 | Urban

A locally representative community sample of Aboriginal and Torres Strait Islander Australian adults was recruited, equivalent to more than one-third (37.9%,  $n = 706$ ) of the target urban population [23]. We worked with local service providers to develop a quota-based sampling strategy, ensuring the sample closely matched the age, sex and socioeconomic status distributions from the 2016, Australian Bureau of Statistics Census of Population and Housing [10].

Sampling sites were a mix of service-based data collection events and public events that were planned (e.g., local festivals or events) and unplanned (e.g., ad hoc visits to local shopping centres, parklands, skateparks, beaches) [23]. We determined likely demographics of

each site in consultation with local research assistants, study investigators and service administrators, then used an algorithm to allocate sampling targets to sites to match census demographics. We have detailed this method and the representativeness of our urban sample in a previous publication [23].

## 2.5.2 | Remote

Due to its small population (60 eligible people expected based on 2016 census), all eligible adults in the remote site were invited to take part. Three of the four field research assistants were Aboriginal Australian and well known to local community members (one resided in the remote site). The recruitment strategy was agreed upon with local stakeholders (community council, clinic, school). This strategy included conducting surveys at community barbecues, and at locations near the council office, supermarket and other commonly accessed public spaces. Additionally, the Aboriginal research assistants invited eligible community members not typically found in public spaces. This approach resulted in recruiting 69 participants, more than was expected based on previous census data.

## 2.6 | Data collection

Data collection was conducted from July to October 2019 by a team of 12 research assistants ( $n = 9$  in the urban site, and  $n = 4$  in the remote site; total  $n = 9$  Aboriginal). Aboriginal research assistants included drug and alcohol professionals ( $n = 2$ ), health practitioners ( $n = 4$ ), a PhD student ( $n = 1$ ), a medical student ( $n = 1$ ) and a research administrative assistant ( $n = 1$ ). Non-Indigenous research assistants included two project officers and a study investigator (KL). Face-to-face training in study methods and survey administration was provided to all research assistants in June 2019 (by KL and KC). Participants were asked to complete the survey once and received a supermarket voucher (\$20 in urban site; \$25 in remote site, to reflect higher cost of living).

## 2.7 | The Grog Survey App

All data were collected using a tablet computer-based application ('Grog Survey App'). The App asked questions on demographics, alcohol consumption, alcohol dependence (International Classification of Diseases, 11th Revision), harms to self or others, treatment access and feedback on using the survey. On survey completion,

immediate tailored feedback on each participant's answers was provided in a confidential manner via the App based on a World Health Organization-adapted alcohol brief intervention (Alcohol Awareness Kit) [24].

### 2.7.1 | App administration

Each participant was provided with headphones and an iPad to complete the survey. A research assistant provided support to participants if required. Images and voiceovers used throughout the survey were matched to the sex and language of each participant for comfort and cultural appropriateness [21].

### 2.7.2 | Drinking status

Participants were asked to report the frequency of their alcohol consumption in the last 12 months. Responses included 'never', 'once in a blue moon (less than once a month)', 'sometimes (2–4 times per month)', '2–3 times per week' and 'most days or every day'. Participants who selected 'never' were given a follow-up question: 'Can I check, in the last 12 months, at special events like sporting carnivals, weddings or funerals, have you had any grog at all?' the two responses were 'Yes, I've had some grog in the last 12 months' and 'No, I had no grog at all in the last 12 months'. People who were recorded as non-drinkers then received a final question: 'In your life, have you ever had any grog at all?' the two responses were 'Yes' and 'No'. Participants who selected 'Yes' were recorded as former drinkers. Participants who selected 'No' were recorded as lifetime abstainers.

## 2.8 | Demographics

Participants reported their sex (male/female), age, whether they had any kind of paid employment and personal income. Personal income could be reported per fortnight or week, but was standardised to weekly income: '\$0–199', '\$200–399', '\$400–599', '\$700–799' and '\$800+'. We asked participants 'What language do you mostly speak at home?' with responses 'English', 'An Aboriginal or Torres Strait Islander language' or 'another language'. We asked participants to report the number of years they spent at school, responses were integers ranging from 'I've never been to school' (0), to 'Year 12'. Participants reported whether they did any further study with options 'Training', 'University' and 'No, I didn't do any training or study after school'.

## 2.9 | Reasons for not drinking alcohol

Former drinkers and lifetime abstainers selected from eight categories to indicate why they abstain from drinking alcohol. They could select multiple answers. Categories included: *Health reasons* ('I want to be healthy', 'I got really sick', 'I was worried I might get problems with grog or be an "alcoholic"', 'My health is bad for other reasons, and I can't drink', 'The doctor or health staff told me to stop or slow down', 'I was in rehab or detox'); *Family reasons* ('Because of my friends or family', 'I wanted to be there to help family', 'I see arguments or fights when family drink', 'I wanted to be a good example for the kids', 'Death or illness in the family', 'Caring for kids or grandkids', 'Someone close to me got pregnant', 'I got pregnant', 'I was pregnant or might get pregnant'); *Cultural reasons* ('Because of my culture', 'Because of my religion'); *Preference reasons* ('I'm not interested in drinking', 'I've no particular reason for not drinking', 'I don't like the taste'); *Availability reasons* ('Grog costs too much', 'Because of where I was living', 'People around me don't drink', 'Alcohol restrictions in my area', 'I moved to a different community', 'I started spending time with different people'); *Bad experiences with alcohol* ('I have seen bad examples of what grog can do', 'I've been hurt by someone else's drinking'); *Court reasons* ('Because of court or prison', 'I had court coming up', 'I stopped when I was in prison', 'I stopped while I was on parole') and *Other* ('Other reasons').

## 2.10 | Harms experienced

Former drinkers and lifetime abstainers were asked to report on alcohol-related harms experienced in the last 12 months. They could select multiple answers: 'No', 'Yes, a drinker has hit me or got in a fight with me', 'Yes, my money runs out because it goes on someone's grog', 'Yes, the kids in my house have been scared by a drinker', 'Yes, other worries like stress'.

### 2.10.1 | Data analysis

We used R version 4.2.2 [25] for all analyses. To determine whether non-drinking is correlated with demographic characteristics, we performed a series of multi-level logistic regressions fit with 'glmmTMB' [26]. As the sample was drawn from two communities, we included random intercepts for each community which models the local base rate of non-drinking. This allowed generalisable 'fixed effects' to be fit, while simultaneously modelling deviations specific to each community.

We tested whether models significantly improved upon the fit of simpler models with likelihood ratio tests. We visualised our model predicting non-drinking by plotting the predicted probability of non-drinking using the package 'ggeffects' [27] and 'ggplot2' [28]. All confidence intervals were estimated using the Wald method. The use of the Grog App for data collection, which includes question-response validation, ensured there was no missing data.

## 2.11 | Transformations

We converted age to decades by dividing by 10 and subtracting the resulted variable from 4 such that 0 was equal to 40 years old. This allowed the age coefficient within regressions to describe changes in age of 10 years. We converted income to a binary variable describing earning less than \$400 per week, or \$400 a week or more.

## 3 | RESULTS

We approached 888 participants to take the app (805 urban, 83 remote). The participation rate was slightly lower in the remote community (83.13%) relative to the urban community (90.68%),  $\chi^2(1) = 3.96$ ,  $p = 0.047$ . Of those who started the app, nearly all (97%) completed it. The final sample size was 775 participants (706 urban, 69 remote).

The average age of the sample was 38.04 years (SD = 16.10). While our participants were mostly Aboriginal Australians, 16 reported having Torres Strait Islander Australian heritage (2.06%). Just over one-fifth of those surveyed had not consumed alcohol in the past year ( $n = 178$ ; 22.97%). The demographics of our sample are described in Table 1 by drinking status (never, former and current). This table reveals potential trends where lifetime abstainers and former drinkers had higher proportions of females compared with current drinkers. Non-drinkers tended to be older than current drinkers. Lifetime abstainers were more likely to speak Aboriginal Australian languages at home and were less likely to be employed.

We explored whether demographic features were associated with abstaining from drinking alcohol (never or former drinking status) in a series of five logistic regressions. In each model we included a random intercept for each community, which models the base-rate of non-drinking. The fixed effects reveal patterns generalisable across the communities. Table 2 presents fixed effects for each logistic regression model. In the first model we found older participants were more likely to abstain from

**TABLE 1** Demographics by alcohol consumption status.

	Alcohol consumption status		
	Never	Former	Current
<i>n</i> (% of the total sample)	66 (8.52)	112 (14.45)	597 (77.03)
Female, %	57.58	64.29	50.25
Mean age (SD)	39.68 (22.15)	47.18 (15.76)	36.14 (14.74)
Aboriginal language spoken at home, %	19.70	6.25	6.87
Median schooling (IQR)	10.00 (3.00)	10.00 (2.25)	10.00 (1.00)
University, %	6.06	9.82	12.73
Employed, %	9.09	23.21	36.85
\$400+ p/w, %	9.09	35.71	32.83

Note: Never drinkers are people who have never consumed alcohol. Former drinkers are those who previously consumed alcohol but had not in the last 12 months. People who currently drink alcohol have consumed alcohol in the last 12 months.

Abbreviations: IQR, interquartile range; p/w, per week.

drinking than younger participants (odds ratio; OR 1.37 [95% confidence interval; CI 1.23, 1.52] for each 10-year increase in age). In Model 2 we found an effect where females were more likely to abstain than males (OR 1.46 [95% CI 1.03, 2.07]). However, this effect of being female became non-significant (OR 1.39 [95% CI 0.97, 1.99]) when we added employment status to the model (Model 3). Being unemployed greatly increased the odds of non-drinking in the past year (OR 2.72 [95% CI 1.77, 4.20]). Adding whether participants spoke an Aboriginal Australian language at home did not improve the model (Model 4), nor did adding an interaction between age and employment status (Model 5). Figure 1 shows the predicted probabilities of people drinking by age and unemployment status, based on Model 3.

While speaking an Aboriginal Australian language at home was not a predictor of abstaining from drinking alcohol in the past 12 months, the raw percentages in Table 1 suggest it might predict *lifetime* abstaining from drinking alcohol. This was confirmed by fitting a multi-level logistic regression predicting lifetime abstaining (with 0 representing ex-drinkers or current drinkers) based on speaking an Aboriginal Australian language at home, with a random intercept for community. We found that people who spoke Aboriginal Australian languages at home were about three times more likely to be lifetime abstainers from drinking alcohol (OR 3.07 [95% CI 1.52, 6.21]) than those who spoke other languages.

We asked former drinkers and lifetime abstainers why they did not drink alcohol (see Table 3; stratified by remoteness). Across both communities, health and family were primary reasons why people did not drink alcohol. Many participants also selected 'other' for why they stopped drinking, suggesting that there may be varied reasons for stopping drinking beyond our response options. Urban lifetime abstainers cited 'bad experiences' as reasons for not drinking alcohol. In both communities few former drinking participants selected a lack of availability of alcohol as a reason for non-drinking.

We asked non-drinking participants whether they had experienced harms from other peoples' drinking in the past year. Table 4 presents the number of participants in each community that reported a given harm. Most non-drinking participants reported that they had not experienced alcohol-related harms from those who do drink alcohol. The most common harm in both communities was stress caused by others' drinking.

## 4 | DISCUSSION

In this paper, we aimed to characterise the features of Aboriginal and Torres Strait Islander Australians who do not drink alcohol in a community representative sample. Our results showed that compared to those who drink alcohol, non-drinkers tended to be older and were less likely to be employed. Those who spoke Aboriginal Australian languages at home were three times more likely to be lifetime abstainers from drinking alcohol. This counters stereotypes [1] that unemployed Aboriginal and Torres Strait Islander Australians are more likely to engage in risky drinking. The top reasons for abstaining from alcohol were health and family. Few participants reported alcohol unavailability as a reason for not drinking it. While many people who abstained reported experiencing stress from other people's drinking, most did not report other harms from drinkers in the last year.

As the first quantitative study to describe characteristics of Aboriginal and Torres Strait Islander Australians who do not drink alcohol direct comparisons to past research are difficult. Research in Aboriginal community controlled residential rehabilitation settings have shown older people (aged 30 years+) were more motivated to reduce alcohol consumption and drug use and accordingly had fewer re-admissions [29]. But this contrasts to meta-analytic findings that older Aboriginal Australians are more likely than their younger counterparts to drink at levels that raise the risk of disease [30]. Perhaps there is more differentiation in drinking patterns with age, with some older Aboriginal Australians engaging in more

TABLE 2 Models predicting non-drinking status by demographics.

Term	Fixed effects					Likelihood ratio test
	OR [95% CI]	lnOR	SE	z	p	
Model 1						
(Intercept)	0.37 [0.22, 0.63]	-1.00	0.27	-3.65	<0.001	
Age (decade)	1.37 [1.23, 1.52]	0.32	0.05	5.83	<0.001	
Model 2						
(Intercept)	0.30 [0.17, 0.53]	-1.21	0.29	-4.14	<0.001	$\chi^2(1) = 4.47, p = 0.034$
Age (decade)	1.36 [1.22, 1.51]	0.30	0.05	5.59	<0.001	
Female	1.46 [1.03, 2.07]	0.38	0.18	2.10	0.035	
Model 3						
(Intercept)	0.16 [0.08, 0.33]	-1.84	0.37	-4.92	<0.001	$\chi^2(1) = 23.40, p \leq 0.001$
Age (decade)	1.35 [1.21, 1.50]	0.30	0.05	5.46	<0.001	
Female	1.39 [0.97, 1.99]	0.33	0.18	1.80	0.072	
Unemployed	2.72 [1.77, 4.20]	1.00	0.22	4.55	<0.001	
Model 4						
(Intercept)	0.14 [0.07, 0.29]	-1.94	0.35	-5.48	<0.001	$\chi^2(1) = 2.48, p = 0.115$
Age (decade)	1.34 [1.21, 1.50]	0.30	0.05	5.43	<0.001	
Female	1.40 [0.98, 2.01]	0.34	0.18	1.84	0.066	
Unemployed	2.76 [1.79, 4.26]	1.02	0.22	4.59	<0.001	
Aboriginal language at home	1.66 [0.90, 3.07]	0.51	0.31	1.61	0.108	
Model 5						
(Intercept)	0.13 [0.06, 0.26]	-2.05	0.36	-5.64	<0.001	$\chi^2(1) = 3.77, p = 0.052$
Age (decade)	1.76 [1.30, 2.38]	0.57	0.15	3.66	<0.001	
Female	1.41 [0.98, 2.02]	0.34	0.18	1.87	0.061	
Unemployed	3.04 [1.91, 4.84]	1.11	0.24	4.68	<0.001	
Aboriginal language at home	1.65 [0.89, 3.08]	0.50	0.32	1.58	0.113	
Age (decade) * Unemployed	0.73 [0.53, 1.01]	-0.31	0.17	-1.89	0.059	

Note: Age was transformed to decades such that increases in 1 unit confer increases in 10 years of age. Age decade was centred such that someone with an age decade of 0 is 40 years old. Random intercepts for community were included in each model.

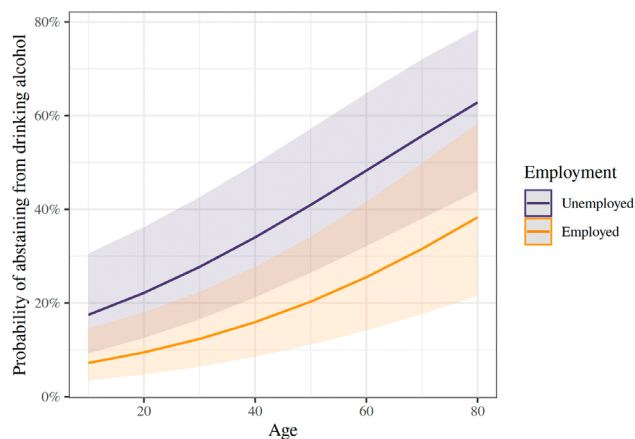
Abbreviations: CI, confidence interval; OR, odds ratio.

heavy drinking over time, while others become 'sick of being sick' from drinking [31] and cease altogether. Accordingly, rates of risky drinking and abstaining among Aboriginal and Torres Strait Islander Australians might both increase with age.

The top reasons for abstaining from drinking alcohol in our sample were health and family. These are similar to a study of Alaskan First Peoples (aged 50 years+) on reasons for maintaining sobriety [32]. However, in that study, being able to practice culture was also given as a key reason for abstaining—in the present study, cultural reasons for abstaining from drinking alcohol were reported by just one person. While practicing culture was not frequently given as an explicit reason for not drinking alcohol, culture undoubtedly implicitly feeds into all local

practices including abstaining from drinking alcohol. In support of this, we found that those who spoke an Aboriginal Australian language at home were three times more likely to be lifetime abstainers from drinking alcohol. Improved study designs that tap into behavioural expressions of culture might better explore links between cultural practices and abstaining from drinking alcohol. Reasons for not drinking alcohol in our study were different to a large multi-country study of non-Indigenous adults [33], where 'no interest in drinking' was the top reason for former drinkers and lifetime abstainers. Other key reasons in this same study were religion; upbringing; and for men, fear of alcohol problems.

We found Aboriginal and Torres Strait Islander Australians who were currently unemployed were most



**FIGURE 1** The percentage probability of not drinking alcohol in the last 12 months based on age and employment status. Predicted probabilities derived from Model 3, see Table 2.

**TABLE 3** The number of participants (%) who reported not drinking for a given reason by remoteness and non-drinking status.

Reasons	Urban		Remote	
	Former	Never	Former	Never
Health	29 (29.3%)	14 (26.4%)	5 (38.5%)	6 (46.2%)
Other	45 (45.5%)	3 (5.7%)	4 (30.8%)	1 (7.7%)
Family	20 (20.2%)	10 (18.9%)	6 (46.2%)	0
Bad experiences	1 (1%)	20 (37.7%)	1 (7.7%)	0
Preference	0	13 (24.5%)	0	4 (30.8%)
Availability	9 (9.1%)	3 (5.7%)	1 (7.7%)	1 (7.7%)
Court	3 (3%)	0	1 (7.7%)	0
Culture	0	0	0	1 (7.7%)
Total, <i>N</i>	99	53	13	13

Note: For percentages were calculated by community and non-drinking status. Participants could select more than one reason, therefore *N*s do not add up to 100%. Reasons are ordered such that the most common (across all participants) are presented first.

**TABLE 4** The number of non-drinking participants (%) who reported experiencing a given harm from drinkers in the past year by remoteness.

Harms	Urban	Remote
None	121 (79.61%)	20 (76.92%)
Stress	22 (14.47%)	6 (23.08%)
Kids scared	7 (4.61%)	0
Hit by drinker	2 (1.32%)	1 (3.85%)
Money spent by drinker	2 (1.32%)	0
Total, <i>N</i>	152	26

Note: Participants could select more than one harm, therefore *N*s do not add up to 100%.

likely to abstain from drinking alcohol. This is consistent with past research showing that employed individuals are more likely to engage in at-risk alcohol consumption [34]. Employment increases ability to purchase alcohol and exposes people to workplace drinking cultures [35]. However, this fails to explain abstaining. Cultures of sharing can be common, especially in remote Aboriginal and Torres Strait Islander communities [36], and so those without a regular income will still have opportunities to drink *some* alcohol. Our participants reported abstaining for at least a year, suggesting this was a deliberate decision. This is consistent with our other findings—availability was infrequently given as a reason for not drinking alcohol.

We did not ask participants about the roles they play within their communities. For example, the critical role Aboriginal and Torres Strait Islander Elders play in communities is not captured in Western notions of employment. So, while abstainers may not have paid employment, they may be active in their community, or may help in raising children and supporting their families. In future surveys, to better understand abstaining, it would be helpful to include questions about how integrated participants are within communities, and the roles they have in supporting those around them.

#### 4.1 | Implications

We have demonstrated varied reasons why Aboriginal and Torres Strait Islander people choose to abstain from alcohol. In the Aboriginal Australian communities we studied, non-drinking appeared to be deliberate, rather than due to a lack of availability. It is likely that the specific reasons why people abstain from drinking vary from community to community based on local priorities and cultures. Understanding more about the attitudes and values of people who do not drink alcohol within these communities may provide important context to policy makers in understanding how to craft health messaging. For example, in communities where non-drinkers list family highly as a reason to not drink alcohol, then messaging around protecting family members may be especially effective. Where people are abstaining to preserve culture, then messaging about culture may be especially effective at reducing alcohol-related harm.

People who do not drink alcohol, in some instances, have been treated as irrelevant to alcohol prevention efforts—they are rarely the focus of previous studies. But this group of individuals may be highly engaged and informed on topics of drinking. Accordingly, clinicians could discuss harms from drinking alcohol with both non-drinkers and drinkers. Engaging non-drinkers in

conversations about alcohol consumption can encourage them to share their concerns, which may help support others in reducing alcohol-related harms.

## 4.2 | Limitations

Drinking patterns are highly heterogeneous between Aboriginal and Torres Strait Islander communities [30], and each community has unique cultural practices and ways of life. Accordingly, the rates of non-drinking, and specific reasons for abstinence may be different in other communities. Our participant communities might have similarities with other communities around Australia. For example, the rate of non-drinking (23%) found across our participants was similar to that found in a recent national survey: 26% in 2018–2019 [3]. However, reasons for abstinence are likely different in communities with alcohol drinking restrictions, or where accessing alcohol is hard. Notably both participant communities (urban and remote) had few Torres Strait Islander Australians. Aboriginal and Torres Strait Islander Australians have distinct cultures and histories which are important factors to consider when describing drinking cultures. While our study might present insights for some Torres Strait Islander communities, they primarily reflect the experiences and contexts of Aboriginal Australians.

While participation was generally high, a higher rate of people in the remote community did not want to participate in the study. This could be due to concerns about privacy and might introduce bias into our findings. Replication is required to confirm how stable reasons are for non-drinking, and to establish how the characteristics of non-drinkers vary from community to community. We believe the broader implications of our paper hold even if the exact reasons for non-drinking are inconsistent between communities. That is, understanding local reasons for not drinking alcohol has potential utility to inform health promotion messaging and efforts to address risky drinking.

## 4.3 | Conclusion

This study provides insights into the demographics and experiences of Aboriginal and Torres Strait Islander Australians who do not drink alcohol. We found that non-drinkers were more likely to be female, older and unemployed. Those who spoke Aboriginal Australian languages at home were much more likely to be lifetime abstainers from drinking alcohol. The most frequent reasons for not drinking alcohol were health, and

family. The exact characteristics and reasons for not drinking alcohol will likely vary from community-to-community. The experiences of Aboriginal and Torres Strait Islander Australians who do not drink alcohol are likely relevant to inform the development of programs to combat risky drinking. Understanding local reasons for abstaining would be helpful to align health promotion messaging.

## AUTHOR CONTRIBUTIONS

Each author certifies that their contribution to this work meets the standards of the International Committee of Medical Journal Editors.

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## CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

## ORCID

James H. Conigrave  <https://orcid.org/0000-0002-8816-6229>

Katherine M. Conigrave  <https://orcid.org/0000-0002-6428-1441>

Tanya N. Chikritzhs  <https://orcid.org/0000-0001-8871-3205>

Catherine Zheng  <https://orcid.org/0000-0003-1612-8466>

Teagan J. Weatherall  <https://orcid.org/0000-0002-3224-5761>

K. S. Kylie Lee  <https://orcid.org/0000-0001-5410-9464>

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