

# Personal attitudes towards smoking in a national sample of Aboriginal and Torres Strait Islander smokers and recent quitters

Contemporary theories of smoking and other addictive behaviours see attitudes as one set of forces influencing behaviour.<sup>1,2</sup> Negative attitudes towards smoking, such as those about its high cost or regret about starting to smoke, are associated with increased interest in quitting and attempts to quit,<sup>3-5</sup> but perhaps not with sustained abstinence.<sup>6,7</sup> These attitudes compete with the benefits attributed to smoking, which have been shown to predict continued smoking and relapse.<sup>8-10</sup> Identifying attitudes that influence behaviour contributes to our understanding of what motivates and sustains quitting. This may differ between social and cultural environments, affecting which tobacco control policies work to reduce smoking.<sup>4,11</sup>

There is no nationally representative research that explores attitudes towards smoking among Aboriginal and Torres Strait Islander people. It is plausible that part of the reason for the high daily smoking prevalence, which was over double that of the non-Indigenous population in 2012–2013,<sup>12</sup> is that Aboriginal and Torres Strait Islander people hold more positive attitudes and/or fewer negative beliefs about smoking. It is also theorised that thoughts about quitting may be cast aside in stressful circumstances, when motivation shifts from future goals to immediate priorities,<sup>2,13</sup> which may be seen to be alleviated by benefits of smoking. Benefits of smoking described by Aboriginal and Torres Strait Islander peoples include coping with stress,<sup>14-21</sup> providing belonging and connectedness,<sup>15,17,19-22</sup> reinforcing sharing and reciprocity,<sup>15,17,19,21</sup> and creating opportunities for yarning or talking through problems.<sup>14,15,17,19-21</sup> Though concern about the high cost of smoking does not feature heavily in Aboriginal tobacco control literature, it is reported as one of the top

## Abstract

**Objectives:** To describe attitudes towards smoking in a national sample of Aboriginal and Torres Strait Islander smokers and recent quitters and assess how they are associated with quitting, and to compare these attitudes with those of smokers in the general Australian population.

**Design, setting and participants:** The Talking About The Smokes project used a quota sampling design to recruit participants from communities served by 34 Aboriginal community-controlled health services and one community in the Torres Strait. We surveyed 1392 daily smokers, 251 non-daily smokers and 78 recent quitters from April 2012 to October 2013.

**Main outcome measures:** Personal attitudes towards smoking and quitting, wanting to quit, and attempting to quit in the past year.

**Results:** Aboriginal and Torres Strait Islander daily smokers were less likely than daily smokers in the general Australian population to report enjoying smoking (65% v 81%) and more likely to disagree that smoking is an important part of their life (49% v 38%); other attitudes were similar between the two groups. In the Aboriginal and Torres Strait Islander sample, non-daily smokers generally held less positive attitudes towards smoking compared with daily smokers, and ex-smokers who had quit within the past year reported positive views about quitting. Among the daily smokers, 78% reported regretting starting to smoke and 81% reported spending too much money on cigarettes, both of which were positively associated with wanting and attempting to quit; 32% perceived smoking to be an important part of their life, which was negatively associated with both quit outcomes; and 83% agreed that smoking calms them down when stressed, which was not associated with the quitting outcomes.

**Conclusions:** Aboriginal and Torres Strait Islander smokers were less likely than those in the general population to report positive reasons to smoke and held similar views about the negative aspects, suggesting that factors other than personal attitudes may be responsible for the high continuing smoking rate in this population.

motivators to quit among the general Australian population.<sup>23</sup>

Here, we describe attitudes towards smoking among a national sample of Aboriginal and Torres Strait Islander smokers and recent quitters, assess their association with quitting among smokers, and compare these attitudes with those among smokers in the general Australian population.

## Methods

### Survey design and participants

The Talking About The Smokes (TATS) project surveyed 1643 current smokers and 78 ex-smokers who had quit  $\leq 12$  months previously, from April 2012 to October 2013 (Wave 1,

or baseline). The survey design and participants are described in detail elsewhere.<sup>24,25</sup>

Briefly, the study used a quota sampling design to recruit participants from communities served by 34 Aboriginal community-controlled health services (ACCHSs) and one community in the Torres Strait (project sites), which were selected based on the population distribution of Aboriginal and Torres Strait Islander people by state or territory and remoteness. In most sites (30/35), we aimed to interview a sample of 50 smokers or recent quitters (those who had quit within the past 12 months), with equal numbers of men and women, and those aged 18–34 years and  $\geq 35$  years. The sample sizes were doubled in four large city sites

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and in the Torres Strait community. People were excluded if they did not identify as Aboriginal or Torres Strait Islander, were less than 18 years old, were not usual residents of the area, were staff of the ACCHS, or were deemed unable to complete the survey. In each location, different locally determined methods were used to collect a representative, albeit non-random, sample (eg, surveying Aboriginal or Torres Strait Islander households, opportunistic event-based sampling, snowball sampling using established contacts).

Interviews were conducted face to face by trained interviewers, almost all of whom were members of the local Aboriginal and Torres Strait Islander community. The survey, entered directly onto a computer tablet, took 30–60 minutes to complete. The baseline sample closely matched the distribution of the 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) by age, sex, jurisdiction and remoteness, and also for number of cigarettes smoked per day (for current daily smokers). However, there were inconsistent differences in some socioeconomic indicators: our sample had higher proportions of unemployed people, but also higher proportions who had completed Year 12 and who lived in more advantaged areas.<sup>24</sup> A single survey of health service activities was also completed for each site.

The project was approved by three Aboriginal human research ethics committees (HRECs) and two HRECs with Aboriginal subcommittees: Aboriginal Health & Medical Research Council Ethics Committee, Sydney; Aboriginal Health Research Ethics Committee, Adelaide; Central Australian HREC, Alice Springs; HREC for the Northern Territory Department of Health and Menzies School of Health Research, Darwin; and the Western Australian Aboriginal Health Ethics Committee, Perth.

#### ITC Project comparison sample

The TATS project is part of the International Tobacco Control Policy Evaluation Project (ITC Project) collaboration. Comparisons were made

with results from the Australian ITC Project, which surveyed 1017 daily smokers between July 2010 and May 2011 (Wave 8), and 1010 daily smokers between September 2011 and February 2012 (Wave 8.5). Participants of the Australian ITC Project were adult smokers who were recruited by random digit telephone dialling from within strata defined by jurisdiction and remoteness.<sup>26,27</sup>

The ITC Project sample mostly comprised those recontacted from previous survey waves, in addition to smokers who were newly recruited to replace those lost to follow-up (Wave 8, 14.6%; Wave 8.5, 17.8%). While baseline surveys were completed over the telephone, follow-up surveys could be self-administered online (Wave 8, 29.6%; Wave 8.5, 32.1%). Slightly different definitions of smokers between the TATS project and ITC Project surveys meant that only daily and weekly smoker categories were directly comparable. We have concentrated on daily smokers in our analyses.

#### Outcome measures

Survey questions were based on ITC Project surveys, particularly the Australian ITC Project surveys. The exact questions used for this article are presented in Appendix 1.

Eight questions measured attitudes towards smoking, all of which captured responses using a five-point scale from “strongly agree” to “strongly disagree” (plus a “don’t know” response, which was later merged with “neither agree nor disagree”). Five of these questions are reported here for smokers, and three for recent quitters.

Two outcomes were used to assess quitting: wanting to quit, and having attempted to quit in the past year, which was derived from questions on ever having tried to quit and how long ago the most recent quit attempt occurred.

#### Statistical analyses

We summarised the TATS project and ITC Project survey results using descriptive statistics. ITC Project data were directly standardised to match the age and sex profile of Aboriginal

and Torres Strait Islander smokers according to the 2008 NATSISS. Given that our sample was not randomly selected, we did not calculate standard errors for comparisons of percentages between our data and ITC Project data. Thus, these comparisons do not incorporate calculations for statistical significance, but consider differences that are large and meaningful.

For smokers, we used logistic regression to analyse the five attitudinal outcomes and two outcomes on quitting. Unadjusted odds ratios (ORs) are reported for the five personal attitudes (dichotomised), by daily smoking status, sociodemographic variables, and presence of tobacco control resources at the local health service. For the outcomes on quitting, we report adjusted ORs for the five personal attitudes, controlling for daily smoking status and sociodemographic variables. Stata 13 (StataCorp) survey [SVY] commands were used to adjust for the TATS project sampling design in all tests of association, using Stata’s svyset command to identify the 35 project sites as clusters and the quotas based on age and sex as strata.<sup>28</sup>

Data for less than 1% of participants were excluded due to missing or refused responses. For the associations with wanting to quit, we excluded a further 79 participants (4.8%) who did not know if they wanted to quit, and for associations with quitting in the past year, we excluded 21 (1.3%) who did not know when their last quit attempt occurred (if ever).

## Results

### Attitudes held by smokers

#### Comparison with ITC Project data

Most attitudes among Aboriginal and Torres Strait Islander smokers were similar to those assessed for smokers in the general Australian population (Box 1). Most daily smokers reported regret about ever starting to smoke (TATS, 78%; ITC, 81.8%) and agreed that they spent too much money on cigarettes (TATS, 81%; ITC, 83.6%). A lower proportion of Aboriginal and Torres Strait Islander daily

## 1 Attitudes towards smoking among smokers in the Australian population and a national sample of Aboriginal and Torres Strait Islander people\*

Survey question and response	Australian ITC Project <sup>†</sup>	Talking About The Smokes project <sup>‡</sup>	
	Daily smokers, % (95% CI)	Daily smokers, % (frequency)	Non-daily smokers, % (frequency)
If you had to do it over again, you would not have started smoking <sup>§</sup>			
Strongly agree or agree	81.8% (75.7%–86.6%)	78% (1081)	79% (197)
Neither agree nor disagree	6.8% (4.3%–10.7%)	7% (102)	9% (23)
Disagree or strongly disagree	11.4% (7.3%–17.3%)	15% (200)	12% (30)
You spend too much money on cigarettes <sup>§</sup>			
Strongly agree or agree	83.6% (78.4%–87.6%)	81% (1116)	54% (134)
Neither agree nor disagree	7.4% (5.0%–11.0%)	8% (110)	11% (28)
Disagree or strongly disagree	9.0% (5.9%–13.5%)	11% (156)	35% (87)
You enjoy smoking <sup>§</sup>			
Strongly agree or agree	80.6% (75.8%–84.6%)	65% (898)	51% (127)
Neither agree nor disagree	10.1% (7.5%–13.6%)	19% (261)	20% (49)
Disagree or strongly disagree	9.3% (6.3%–13.4%)	16% (223)	29% (73)
Smoking is an important part of your life <sup>§</sup>			
Strongly agree or agree	34.6% (29.8%–39.9%)	32% (444)	20% (50)
Neither agree nor disagree	27.4% (22.5%–33.0%)	19% (268)	12% (30)
Disagree or strongly disagree	37.9% (32.5%–43.6%)	49% (670)	68% (169)
Smoking calms you down when you are stressed or upset <sup>§</sup>			
Strongly agree or agree	80.3% (75.5%–84.3%)	83% (1143)	70% (174)
Neither agree nor disagree	11.0% (7.7%–15.7%)	9% (127)	13% (33)
Disagree or strongly disagree	8.7% (6.6%–11.2%)	8% (111)	17% (42)

ITC Project = International Tobacco Control Policy Evaluation Project. \* Percentages and frequencies exclude refused responses. † Results for daily smokers from Wave 8 ( $n = 1017$ ) or Wave 8.5 ( $n = 1010$ ) of the Australian ITC Project, directly standardised to the age and sex of Aboriginal and Torres Strait Islander smokers surveyed in the 2008 National Aboriginal and Torres Strait Islander Social Survey. ‡ Results for the baseline sample of Aboriginal and Torres Strait Islander daily smokers ( $n = 1392$ ) and non-daily smokers ( $n = 251$ ) in the Talking About The Smokes project, April 2012 – October 2013. § Australian ITC Project Wave 8.5, September 2011 to February 2012. ¶ Australian ITC Project Wave 8, July 2010 to May 2011. ◆

smokers (65%) than those in the general Australian population (80.6%) said they enjoyed smoking (Box 1). Though similar proportions of daily smokers agreed that smoking is an important part of their life (TATS, 32%; ITC, 34.6%), a higher proportion of Aboriginal and Torres Strait Islander respondents disagreed with this statement (TATS, 49%; ITC, 37.9%). A high proportion of daily smokers agreed that smoking calms them down when stressed or upset (TATS, 83%; ITC, 80.3%).

### Attitudes of Aboriginal and Torres Strait Islander smokers

Non-daily smokers generally held less positive attitudes towards smoking (Appendix 2); compared with daily smokers, they were significantly less likely to say that they enjoy smoking (OR, 0.56; 95% CI, 0.42–0.75;  $P < 0.001$ ), that smoking is an important part of their life (OR, 0.53; 95% CI, 0.35–0.81;  $P = 0.004$ ) and that smoking calms them down when stressed (OR, 0.48; 95% CI, 0.35–0.67;

$P < 0.001$ ). Non-daily smokers were also less likely to report that they spend too much money on cigarettes (OR, 0.28; 95% CI, 0.20–0.39;  $P < 0.001$ ).

There was little variation in smoker attitudes by sociodemographic and other factors (Appendix 2). Compared with the youngest smokers, those aged 35–44 years were less likely to say they enjoy smoking (OR, 0.64; 95% CI, 0.43–0.93), whereas older smokers were more likely to report that smoking is an important part of their life ( $P < 0.001$ ). Smokers from areas of the highest level of disadvantage were more likely to report that they enjoy smoking (OR, 1.66; 95% CI, 1.19–2.30) compared with those from the least disadvantaged areas ( $P = 0.01$ ). Smokers from regional areas (OR, 1.67; 95% CI, 1.27–2.20) and remote or very remote areas (OR, 2.13; 95% CI, 1.49–3.04) were also more likely than those from major cities to report that they enjoy smoking ( $P < 0.001$ ). Smokers who were not in the labour force (OR, 1.78; 95% CI, 1.32–2.38)

were more likely to see smoking as an important part of their life than those who were employed ( $P < 0.001$ ).

Attitudes about regretting ever starting to smoke, being calmed by smoking when stressed, and spending too much money on cigarettes did not vary according to sociodemographic indicators.

### Relationship of smoker attitudes with quitting

The likelihood of wanting to quit or having attempted to quit in the past year was higher for Aboriginal and Torres Strait Islander smokers who regretted starting to smoke and those who said they spend too much money on cigarettes, and lower for smokers who said they enjoy smoking and those who reported that smoking is an important part of their life (Box 2).

### Attitudes held by recent quitters

Ex-smokers who had quit within the past 12 months reported positive

## 2 Association of personal attitudes towards smoking with wanting and attempting to quit in a national sample of Aboriginal and Torres Strait Islander smokers\*

Attitude	Want to quit			Attempted to quit in the past year		
	% (frequency) <sup>†</sup>	Adjusted OR (95% CI) <sup>‡</sup>	P <sup>§</sup>	% (frequency) <sup>†</sup>	Adjusted OR (95% CI) <sup>‡</sup>	P <sup>§</sup>
If you had to do it over again, you would not have started smoking						
Neutral or disagree	52% (176)	1.0	< 0.001	38% (131)	1.0	< 0.001
Agree	75% (907)	2.79 (1.96–3.97)		53% (662)	1.84 (1.37–2.48)	
You spend too much money on cigarettes						
Neutral or disagree	59% (204)	1.0	< 0.001	45% (167)	1.0	0.02
Agree	73% (879)	2.22 (1.59–3.10)		51% (626)	1.41 (1.06–1.88)	
You enjoy smoking						
Neutral or disagree	85% (489)	1.0	< 0.001	58% (348)	1.0	< 0.001
Agree	61% (594)	0.29 (0.21–0.42)		44% (445)	0.56 (0.44–0.70)	
Smoking is an important part of your life						
Neutral or disagree	75% (805)	1.0	< 0.001	53% (591)	1.0	0.001
Agree	59% (278)	0.48 (0.37–0.63)		41% (202)	0.68 (0.55–0.86)	
Smoking calms you down when you are stressed or upset						
Neutral or disagree	70% (203)	1.0	0.75	46% (140)	1.0	0.09
Agree	70% (880)	1.06 (0.75–1.51)		50% (653)	1.28 (0.97–1.69)	

OR = odds ratio. \*Results are based on the baseline sample of current smokers ( $n = 1643$ ) in the Talking About The Smokes project. <sup>†</sup>Percentages and frequencies exclude refused responses (for all variables) and “don’t know” responses (for quitting outcomes only). <sup>‡</sup>ORs are adjusted for daily smoking status and key sociodemographic variables (age, sex, identification as Aboriginal and/or Torres Strait Islander, labour force status, highest level of education, remoteness and area-level disadvantage). <sup>§</sup>P values are reported for overall variable significance, using adjusted Wald tests. ◆

## 3 Attitudes towards smoking and quitting among recent quitters in a national sample of Aboriginal and Torres Strait Islander people\*

Survey question and response	% (frequency) <sup>†</sup>
Since you quit you have more money	
Strongly agree or agree	87% (68)
Neither agree or disagree (or don’t know)	8% (6)
Disagree or strongly disagree	5% (4)
You can now cope with stress as well as you did when you were smoking	
Strongly agree or agree	74% (57)
Neither agree or disagree (or don’t know)	12% (9)
Disagree or strongly disagree	14% (11)
Your life is better now that you no longer smoke	
Strongly agree or agree	90% (70)
Neither agree or disagree (or don’t know)	8% (6)
Disagree or strongly disagree	3% (2)

\*Results for the baseline sample of Aboriginal and Torres Strait Islander ex-smokers who had quit within past  $\leq 12$  months ( $n = 78$ ) in the Talking About The Smokes project. <sup>†</sup>Percentages and frequencies exclude refused responses. ◆

views about having quit (Box 3). Among these recent quitters, 87% agreed that they have more money since they quit, 74% agreed that they cope with stress at least as well as they did when smoking, and 90% agreed that their life is better now that they no longer smoke.

## Discussion

Our results show that Aboriginal and Torres Strait Islander people were less likely than the general Australian population to report positive reasons to smoke and held similar views about the negative aspects of smoking. As negative attitudes to smoking were already common, approaches that seek to *change* these beliefs are not likely to affect Aboriginal and Torres Strait Islander smoking or quitting rates. In particular, levels of regret for ever starting to smoke were comparable to those seen globally.<sup>5,29</sup> We hope this energises and reassures those in comprehensive primary health care settings who face the challenge of prioritising smoking cessation amid other, often pressing, demands.<sup>30</sup>

It is encouraging that a majority of smokers rejected the idea that smoking is an important part of their life, and that a lower proportion of Aboriginal and Torres Strait Islander smokers compared with those in the general Australian population said they enjoy smoking. As in other populations, smokers who agreed with statements about positive attributes

of smoking were less interested in quitting and less likely to attempt to quit.<sup>10,31</sup> The ITC Project has found that smokers who hold these positive attitudes are also less likely to quit successfully, but that part of this effect can be explained by differences in measures of nicotine dependence.<sup>10</sup> However, factors that predict successful quitting sometimes differ from those that predict quit intentions and attempts.<sup>6,7</sup> The complex relationships between attitudes, other factors and successful quitting is an important topic for future prospective research in this population.

Qualitative research has demonstrated broad recognition among Aboriginal and Torres Strait Islander peoples that stress is both a trigger for smoking and a common cause of relapse,<sup>14-17,19-21</sup> consistent with international evidence on smoking for stress management.<sup>9,10</sup> While we were surprised to find that those who believe smoking reduces their stress were no less motivated to quit, our outcomes were limited to quit attempts and not the success of such attempts. Connections between smoking and stress, or psychological reactions to stress, would benefit from further

study using measures shown to be sensitive to the multiple life stressors and high levels of psychological distress experienced by Aboriginal and Torres Strait Islander peoples.<sup>32,33</sup> Exploration of supports and strategies that enable successful quitting in the presence of these stressors is also indicated. Research on resilience to stress describes the pride associated with mastering the transition to becoming a non-smoker.<sup>16</sup> In our results, most ex-smokers agreed that they cope with stress at least as well as they did when smoking and that their life is better now that they no longer smoke. The reduction in psychological distress that follows quitting is well documented.<sup>34,35</sup> Health professionals and cessation resources could work towards extinguishing the myth that smoking reduces stress by replacing it with a more accurate and empowering message that ex-smokers experience less stress and greater quality of life once they quit.

### Strengths and limitations

This article provides a broadly nationally representative snapshot of attitudes towards smoking held by Aboriginal and Torres Strait Islander smokers. The use of single items to measure constructs can lack sensitivity but enabled us to enquire about a broad range of topics, using attitudinal and functional utility items that have established validity in other populations.<sup>36</sup> While the validity of these items is yet to be established for Aboriginal and Torres Strait Islander peoples, comparable associations with quit-related outcomes provide some evidence of convergent validity.<sup>36</sup> However, the limited number of closed-ended questions used here would not have captured the full range of attitudes held by Aboriginal and Torres Strait Islander smokers and may have missed important constructs.

Further, comparisons with ITC Project data must be made with a degree of caution. There is expert consensus that response styles are culturally moderated, meaning that the degree to which social desirability bias affects the tendency to agree or respond using scale extremities can vary according to respondent

characteristics.<sup>36</sup> Methods of recruitment and data collection also differ between the TATS and ITC projects, which may affect response biases present in each. However, the degree of variation to responses across the eight attitude items provides some evidence against any systematic response preference or bias in our data.

Finally, these results do not provide information about whether negative attitudes towards smoking precede quitting, or whether those who are already making quit attempts tend to develop more negative views about smoking. Our understanding of the likely direction of these relationships is informed by prospective research from other settings, which can be tested using longitudinal data from the follow-up of these baseline results.

With these limitations in mind, our findings add to our understanding of the context of smoking and quitting for Aboriginal and Torres Strait Islander peoples. The finding that their personal attitudes towards smoking are similar to those among the general Australian population, and appear to share the same motivating effects, suggests factors other than personal attitudes are likely to explain the high prevalence of smoking among Aboriginal and Torres Strait Islander people. Future research should consider the effect of structural factors, such as access to services that support quitting, intergenerational effects of colonisation and dispossession, levels of racism and psychological distress, and normalisation of smoking within Aboriginal and Torres Strait Islander social networks.<sup>17,19,22,37-39</sup>

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