Changes in public support for alcohol policies in NSW, Australia, 2013–2019

Wendy L Watson\textsuperscript{a,c}, Natalie Stapleton\textsuperscript{a}, Penny Buykx\textsuperscript{b}, Clare Hughes\textsuperscript{a} and Anita Dessai\textsuperscript{a}

\textsuperscript{a} Cancer Prevention and Advocacy Division, Cancer Council NSW, Sydney, Australia
\textsuperscript{b} University of Newcastle, NSW, Australia
\textsuperscript{c} Corresponding author: wendyw@nswcc.org.au

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Abstract

Objectives: Alcohol contributes to significant health, social and economic burdens worldwide, but evidence-based policy options can reduce the harm associated with alcohol use. The aim of this paper is to understand factors influencing public support for various alcohol policies in New South Wales (NSW), Australia, and to determine any change over time.

Methods: An online survey of adults in NSW, in 2013 (n = 2482), 2016 (n = 1585) and 2019 (n = 1601), assessed support for alcohol policies. Multivariable logistic regression models examined the change in support over time, adjusting for demographics, alcohol consumption, smoking status and knowledge of alcohol as a risk factor for cancer.

Results: Most participants (68–72%) supported policies preventing underage internet users from exposure to alcohol advertising, and banning alcohol sponsorship of underage music and sporting events. Fiscal policies and restrictions on the number of alcohol outlets were the least supported policies (<40% support). Compared with 2013, participants in 2016 and 2019 were less likely to support policies increasing price, applying a volumetric tax and reducing the number of alcohol outlets. In 2019, more than 55% of respondents were aware that alcohol was a cancer risk factor, and knowledge of that relationship was associated with an increased likelihood of support for alcohol policies.

Conclusions: Support was greatest for alcohol harm-reduction policies that had less impact on an individual's drinking. Overall, support for alcohol policies in NSW is not increasing. Initiatives to raise awareness about the health consequences of alcohol use, together with effective alcohol policies, are needed to counter industry influence on decision makers and negative public discourse.
Introduction

Australian drinking rates are among the highest in the world, and alcohol contributes to 4.5% of the Australian burden of disease. In 2013, 2.4% of cancer deaths and 2.8% of cancer cases in Australia were attributed to alcohol. Alcohol use has both an economic cost, estimated as an annual productivity cost in Australia of $1.1–6.8 billion, and a social cost; one Australian study found that 70% of respondents were affected in some way by someone else’s drinking, ranging from fear to physical harm.

The World Health Organization deems policies related to alcohol price, availability and marketing as ‘best buys’ among policy options and interventions to address the substantial burden of alcohol on health, society and the economy. Governments play an integral role in applying evidence-based policies to reduce alcohol intake and minimise harm. Increasing public support for harm-reduction policies can increase the likelihood of governments implementing them.

Internationally, public support for evidence-based alcohol policies varies. Support for alcohol policies across seven countries that participated in the International Alcohol Control Study ranged between 12% and 96%. Support was consistently higher for policies addressing drink-driving or the minimum purchase age, and lower for pricing policies. International studies have also highlighted the fluidity of support for alcohol policies.

For example, in Ontario, Canada, during the 16 years to 2011, there was a decrease in support for policies such as reducing the number of alcohol outlets but a concurrent increase in support for policies such as alcohol taxation. In Australia, between 1993 and 2004, support decreased significantly for many alcohol policies. However, a later study assessing changes in support from 1995 to 2010, using questions from the same survey, found increased support since 2004 for many policy options related to alcohol availability and accessibility.

Understanding population subgroups that are more supportive of alcohol policies, and factors that influence opinion, can inform advocacy approaches. Support for alcohol-related policies is generally higher in females, older people, lower-income populations and people who drink less. Knowledge of the harms associated with alcohol may also influence support for policies designed to minimise its negative consequences. Studies from Australia, Canada and the UK have observed an association between greater support for alcohol policies and awareness of alcohol as a risk factor for cancer.

A multitude of factors influence policy decisions about alcohol, including lobbying by the alcohol industry and media criticism of government interventions. In February 2014, New South Wales (NSW) introduced restrictions aimed at reducing violence at night: no alcohol service after 3 am, no entry for new customers after 1.30 am to licensed venues in high-risk areas of Sydney, and a state-wide ban on takeaway sales of alcohol after 10 pm. A coordinated campaign criticised the law until it was repealed in March 2021.

This study follows public attitudes to policy options in NSW during the period 2013–2019 to help inform advocacy initiatives. The aims were to 1) assess changes in public support for alcohol policies in NSW from 2013 to 2019; and 2) examine if demographic, behavioural and knowledge factors are associated with greater support for alcohol policies.

Methods

The NSW Community Survey on Cancer Prevention investigates public attitudes and behaviours related to a range of cancer prevention topics. It was first conducted in 2013, and then in 2016 and 2019. NSW adults were recruited via a market research company to complete an online survey taking approximately 20 minutes. Panelists were recruited from online research panels (nonprobability access panel) via an email invitation and offered a small incentive to complete the survey. To be eligible, participants were required to be living in NSW, older than 18 years, and not currently receiving treatment for cancer. Neither the participant nor their family could be employed in advertising, or sales or manufacturing of alcohol or tobacco. The sample size was 3301 in 2013 (17.53% response rate; 56% completion rate), 3188 in 2016 (5% response rate; 79% completion rate) and 3213 in 2019 (9.2% response rate; 56% completion rate). Respondents were randomly allocated to answer questions on two of the following topics: nutrition and food, alcohol, sun protection, and tobacco. Across the three iterations, 5668 participants (of 9702) completed the alcohol-specific questions (2013: n = 2482; 2016: n = 1585; 2019: n = 1601).

Demographic information, including age, sex, location, household income and education, was collected. Postcode was used to derive an Index of Relative Socio-economic Disadvantage (IRSD), a general socio-economic index based on the 2016 Australian Census. Participants were presented with standard drink images to guide responses on alcohol consumption. Alcohol consumption was measured using the Alcohol Use Disorders Test (AUDIT-C), a 3-item scale assessing frequency of alcohol consumption, usual consumption quantity and frequency of single-occasion heavy drinking (five or more drinks). AUDIT-C scores were categorised as no (score = 0), low (1–2), medium (3–4) or high (=5); the higher the score, the greater the risk of alcohol-related harm. Participants selecting “don’t know” were unable to have an AUDIT-C score calculated and were excluded from analysis.

Knowledge of alcohol as a risk factor for cancer was assessed using the question: “Which of the following do you think can result from drinking too much alcohol?”
Cancer was listed, along with five other health conditions, and the response options were “yes”, “no” and “don’t know”. The categories of “no” and “don’t know” were combined into one category for analysis of whether knowledge influenced policy support.

To assess support for policy options, participants were asked the question: “To reduce problems associated with alcohol use, to what extent do you support or oppose …?” and presented with the policy options listed in Table 2. Participants indicated opposition or support on a 5-point Likert scale from “strongly support” to “strongly oppose” or “don’t know”. The number of policy options presented varied across years (2013 = 7; 2016 = 10; 2019 = 7) and evolved to focus on emerging policy opportunities (e.g. “banning alcohol sponsorship of youth-focused music events” was added in 2019).

Multivariable logistic regression examined the relationship between support for policy options over time for five policy questions common to all surveys, adjusting for the following variables: age, sex, education, IRSD, current smoking status, AUDIT-C score category and knowledge of alcohol as a risk factor for cancer. These variables were chosen based on previous studies that observed associations between these variables and levels of support for alcohol policies.11,13 Support for policy options were dichotomised into “support” (“support” and “strongly support”) and “do not support” (“neither support nor oppose”, “oppose” and “strongly oppose”). Because we were reporting on the support for policy options, “neither support nor oppose” was included in the “do not support” category. Those selecting “don’t know” were reported as missing values and excluded (0–5%). Categorical variables were year (2013, 2016, 2019), age (<40 years, 40–59 years, ≥60 years), sex (male, female), IRSD (five quintiles), education (year 10, year 11 or 12, diploma/certificate, university), current smoker (yes, no), AUDIT-C score category (no, low, medium, high) and knowledge of alcohol as a risk factor for cancer (yes, no). All potential interactions of variables with year were undertaken and, if significant, retained in the final model. No models included residuals greater than 3 standard deviations.

All analyses were undertaken using IBM SPSS Statistics Subscription (Armonk, NY: IBM Corp; Version: Build 1.0.0.3581). Unweighted descriptive statistics were generated for demographic variables. All other results were weighted based on participants’ age, sex, education and region to reflect the NSW population. The weighting included calibrating to account for differences between participants in online research panels and the rest of the population using benchmark questions from a national probability-based online panel.

Ethics clearance was provided by the Cancer Council NSW Ethics Committee (reference #318).

Results

The characteristics of those who answered the alcohol questions are shown in Table 1. In 2019, 55.5% of participants were aware that alcohol was a risk factor for cancer, an increase from 47.4% in 2013 and 49.8% in 2016.

Table 2 shows the proportion of participants who supported each alcohol policy initiative in each survey year. Policy options addressing exposure of young people to alcohol marketing received the highest levels of support; in 2019, more than 70% of survey respondents supported laws protecting underage (younger than 18 years) internet users from alcohol advertising and banning alcohol sponsorship of youth-focused music events. Fiscal policies and reducing alcohol outlets generally received lower levels of public support (approximately 40% or less). Increasing the price of alcohol was consistently the least supported fiscal policy. In 2013 and 2016, support for three alcohol labelling initiatives ranged between 50.4% and 70.8%, with generally higher levels of support in 2013 than in 2016 (these policies were not surveyed in 2019).

The logistic regression results are shown in Supplementary Table 1 (available from: 10.6084/m9.figshare.16695580) and summarised here. Respondents were less likely to support policy options to increase price, apply a volumetric tax and reduce the number of outlets in 2016 and 2019 compared with 2013 (odds ratio [OR] range 0.74–0.82). Across all policy options, increasing age and knowledge of alcohol as a risk factor for cancer were positively associated with increased likelihood of support (OR range 1.02–2.44 and 1.39–1.77, respectively). Those who drank at higher risk levels were significantly less likely to support all five alcohol policies (OR range 0.1–0.51), as were those who smoked (OR range 0.55–0.68), except for the policy options to ban alcohol sponsorship of sporting events and reduce the number of outlets. The odds of supporting the following policies were higher for females than for males: laws protecting underage internet users from alcohol advertising, banning alcohol sponsorship of sport, and reducing the number of outlets. Higher levels of education were generally associated with increased likelihood of support for policies; this relationship was not significant for laws protecting underage internet users from exposure to alcohol advertising.

Logistic regression for the five consistent policy options showed an interaction between smoking status and survey year in three of the models, and between IRSD and survey year for the model analysing banning alcohol sponsorship of sport. For the models analysing increasing the price of alcohol and a tax on alcoholic drinks, among smokers there was an increase in support from 2013 to 2016 and no significant change in support from 2013 to 2019. For the model analysing banning alcohol sponsorship of sport, among smokers there was no significant change in support from 2013 to 2016,
and a decrease in support from 2013 to 2019; for this model, there was also an apparent greater increase in support from 2013 to 2016 and from 2013 to 2019 for IRSD quintiles 2 and 5 (highest) compared with quintiles 3 and 4.

Discussion

There was limited change in the proportion of people supporting policies designed to reduce harm from alcohol across the three surveys between 2013 and 2019. Some of the results can be compared to those from the NSW results in Australia’s 2019 National Drug Strategy Household Survey where the same questions were asked but to those aged 14 years and older.20 The results of our 2019 community study are within 3 percentage points of the NSW results in the Household Survey for increasing the price (30.3% vs 28.0%), and banning sponsorship of sport (54.7% vs 55.2%) and within 5 percentage points for decreasing the number of outlets (35.1% vs 30.3%) and increasing the tax on alcohol to pay for health, education, and the cost of treating alcohol related problems (39.7% vs 44.0%).20 Consistent with previous findings, policies with no direct impact on an individual’s drinking had the greatest support, whereas more restrictive policies that might affect an individual’s own behaviours, such as price and availability, were least supported.21 Similar to a recent survey22, increasing the price of alcohol was the least supported price-based policy. Increasing the tax on alcohol to pay for health and treatment costs received more support than simply increasing the price of alcohol. This is important for policy makers to know when framing policies, and is consistent with other studies showing more support for taxation when those taxes are directed into harm-reduction programs or into offsetting the cost of alcohol-related harm.22, 23

Analysis of changes over time showed that the likelihood of supporting some policy options was lower in 2016 and 2019 than in 2013. Previous Australian studies initially observed a general drop in support for alcohol policies from 1995 to 2004, and an increase in support from 2004 to 2010.11,12 These studies were unable to identify the underlying reasons driving changes in support, but their findings demonstrate that policy support is not static and can change in either a positive or negative direction.

Between the first and last time points of this current study, state-specific laws aimed at reducing alcohol-related violence at night were introduced following two deaths from alcohol-related violence, the most recent a month before the 2013 survey.17,24 These laws, introduced in February 2014, applied restrictions to venues in high-risk areas of Sydney and a statewide ban on takeaway sales of alcohol after 10 pm. There was a highly organised and persistent public campaign (described elsewhere17) against these policies, from the time the law was implemented, throughout a review

### Table 1. Sample characteristics by year (unweighted data)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2013</th>
<th>2016</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 2482</td>
<td>n = 1585</td>
<td>n = 1601</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;40 years</td>
<td>36.0</td>
<td>34.3</td>
<td>38.1</td>
</tr>
<tr>
<td>40–59 years</td>
<td>39.1</td>
<td>40.1</td>
<td>32.0</td>
</tr>
<tr>
<td>≥60 years</td>
<td>24.9</td>
<td>25.6</td>
<td>29.9</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49.2</td>
<td>44.9</td>
<td>47.5</td>
</tr>
<tr>
<td>Female</td>
<td>50.8</td>
<td>54.8</td>
<td>52.5</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sydney and suburbs</td>
<td>63.4</td>
<td>63.0</td>
<td>68.4</td>
</tr>
<tr>
<td>Other NSW</td>
<td>36.6</td>
<td>37.0</td>
<td>31.6</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤Year 10</td>
<td>14.3</td>
<td>12.8</td>
<td>14.6</td>
</tr>
<tr>
<td>Year 11 or 12</td>
<td>16.5</td>
<td>14.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Diploma/certificate</td>
<td>36.7</td>
<td>38.0</td>
<td>32.0</td>
</tr>
<tr>
<td>University qualification</td>
<td>32.5</td>
<td>34.2</td>
<td>32.5</td>
</tr>
<tr>
<td><strong>IRSD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest quintile</td>
<td>15.0</td>
<td>16.8</td>
<td>13.6</td>
</tr>
<tr>
<td>Second quintile</td>
<td>18.5</td>
<td>20.0</td>
<td>17.7</td>
</tr>
<tr>
<td>Third quintile</td>
<td>23.0</td>
<td>19.6</td>
<td>22.2</td>
</tr>
<tr>
<td>Fourth quintile</td>
<td>15.0</td>
<td>16.2</td>
<td>14.3</td>
</tr>
<tr>
<td>Highest quintile</td>
<td>28.4</td>
<td>27.1</td>
<td>32.0</td>
</tr>
<tr>
<td><strong>AUDIT-C category</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>13.3</td>
<td>17.8</td>
<td>15.1</td>
</tr>
<tr>
<td>Low</td>
<td>25.3</td>
<td>26.5</td>
<td>25.0</td>
</tr>
<tr>
<td>Medium</td>
<td>24.8</td>
<td>23.9</td>
<td>24.9</td>
</tr>
<tr>
<td>High</td>
<td>35.8</td>
<td>29.7</td>
<td>32.7</td>
</tr>
<tr>
<td><strong>Smoking status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker (yes)</td>
<td>17.0</td>
<td>18.9</td>
<td>14.1</td>
</tr>
<tr>
<td>Current smoker (no)</td>
<td>83.0</td>
<td>81.1</td>
<td>85.9</td>
</tr>
<tr>
<td><strong>Knowledge of alcohol as a risk factor for cancer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47.4</td>
<td>49.8</td>
<td>55.5</td>
</tr>
<tr>
<td>No</td>
<td>28.7</td>
<td>28.1</td>
<td>24.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>23.9</td>
<td>22.1</td>
<td>20.4</td>
</tr>
</tbody>
</table>

NSW = New South Wales; AUDIT-C = Alcohol Use Disorders Test; IRSD = Index of Relative Socio-economic Disadvantage

a Missing values account for 0.3%

b “I prefer not to say” not shown (2016: n = 10; 2019: n = 14)

c IRSD could not be established and is not shown for some respondents (2013: n = 2; 2016: n = 5; 2019: n = 4)

d AUDIT-C score not calculated for those selecting “don’t know” for frequency of alcohol consumption and frequency of single-occasion heavy drinking; these responses were excluded from analysis (2013: n = 20; 2016: n = 33; 2019: n = 37).
implications for future advocacy and lessons for policy
makers. As in previous studies, those who were more likely
to support alcohol harm-reduction policies were female,
were older, had a university education, were lower-risk
drinkers, were nonsmokers and were aware that alcohol
increases cancer risk. Diepeveen et al. suggested
that females often have healthier behaviours than males;
thus many of the policies may be less intrusive for
them. Furthermore, older adults may be more trusting of
government or have higher levels of knowledge about the
harms of products such as alcohol, which influence their
higher levels of support. Our results, showing a decrease in
support over time for policies relating to the availability
of alcohol, reflect that observation. The restrictions on
venues and the public discourse about government
intervention that surrounded that legislative change in
NSW may have contributed to this decrease. Livingston et al.
found that attitudes changed even among those
not affected by the policy, and speculated that this may
have been because of the influence of public discourse. Further research is needed to establish whether and how public discourse affects policy support among those not directly affected by a policy, because this could have
implications for future advocacy and lessons for policy
makers.
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to support alcohol harm-reduction policies were female,
were older, had a university education, were lower-risk
drinkers, were nonsmokers and were aware that alcohol
increases cancer risk. Diepeveen et al. suggested
that females often have healthier behaviours than males;
thus many of the policies may be less intrusive for
them. Furthermore, older adults may be more trusting of
government or have higher levels of knowledge about the
harms of products such as alcohol, which influence their
higher levels of support. Knowledge of alcohol as a risk factor for cancer has
been associated with increased likelihood of supporting alcohol harm-reduction policies. Weerasinghe et al. found that increased knowledge of alcohol as a cancer

Table 2. Support for alcohol policies by year (weighted)a

<table>
<thead>
<tr>
<th>Policy option</th>
<th>2013 % support</th>
<th>2016 % support</th>
<th>2019 % support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pricing policies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing the price of alcoholb</td>
<td>28.2</td>
<td>29.7</td>
<td>30.3</td>
</tr>
<tr>
<td>Increasing the tax on alcohol products to pay for health, education and the cost of treating alcohol-related problems</td>
<td>NA</td>
<td>40.3</td>
<td>39.7</td>
</tr>
<tr>
<td>Taxing alcoholic drinks based on the percentage of alcohol they containb</td>
<td>40.4</td>
<td>38.6</td>
<td>40.2</td>
</tr>
<tr>
<td><strong>Marketing policies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laws aiming to restrict underage internet users being exposed to alcohol advertisingb</td>
<td>68.2</td>
<td>69.6</td>
<td>71.9</td>
</tr>
<tr>
<td>Limiting alcohol advertising on TV until after 9:30 pm</td>
<td>NA</td>
<td>68.9</td>
<td>NA</td>
</tr>
<tr>
<td>Banning alcohol sponsorship of sporting eventsb</td>
<td>46.5</td>
<td>49.6</td>
<td>54.7</td>
</tr>
<tr>
<td>Banning alcohol sponsorship of youth-focused music events</td>
<td>NA</td>
<td>NA</td>
<td>70.6</td>
</tr>
<tr>
<td><strong>Labelling policies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific health warnings on alcohol containers (e.g. like those on tobacco packaging)</td>
<td>70.8</td>
<td>59.9</td>
<td>NA</td>
</tr>
<tr>
<td>Increasing the size of standard drink labels on alcohol containers</td>
<td>69.2</td>
<td>50.4</td>
<td>NA</td>
</tr>
<tr>
<td>Requiring information on national drinking guidelines on all alcohol containers</td>
<td>64.7</td>
<td>61.6</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing the number of outlets that sell alcoholb</td>
<td>37.1</td>
<td>34.4</td>
<td>35.1</td>
</tr>
</tbody>
</table>

NA = not applicable


b Policy question included in statistical analysis to examine the relationship between support for policy options over time.

Note: “Don’t know” was included as missing values.
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research company, and the difference in participation rates may be a measure of differences in the membership of each online panel or the percentage of active panel members. The authors cannot speculate if participation rates influenced the results, but quota sampling was put in place to mitigate this. The current policy questions are unidimensional and do not uncover reasons for support or lack of support for these policies. Future research could focus on identifying reasons why some policies are not supported.

Conclusion

This study shows limited changes in public support for alcohol harm-reduction policies in NSW between 2013 and 2019. Some population subgroups remain more supportive of alcohol policies, including those with increased knowledge of harms associated with alcohol consumption, specifically cancer risk. Raising awareness of the health consequences of alcohol intake and the effectiveness of evidence-based alcohol policies, alongside advocating for strategies to control lobbying by those with commercial interests, are ways civil society can help increase the likelihood of these policies being implemented.

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Peer review and provenance

Externally peer reviewed, not commissioned.

Competing interests

None declared.

Author contributions

WW and NS were responsible for design, drafting and data analysis. PB was responsible for data interpretation and manuscript review. CH was responsible for design and manuscript review. AD was responsible for overseeing data acquisition and manuscript review. All authors edited the manuscript.
References


