
Changes in Australian Attitudes to Alcohol Policy: 1995-2010

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Abstract

Introduction and Aims: In 2009 Wilkinson and colleagues identified a downward trend in support for alcohol policy restrictions in Australia between 1995 and 2004. The aim of the current study is to examine more recent data on policy support in Australia, specifically for policies covering alcohol availability, up to 2010 and to examine demographic specific shifts in support.

Design and Methods: Data was taken from the National Drug Strategy Household Surveys from 1995, 1998, 2001, 2004, 2007 and 2010 (N= 80,846), primarily responses to items on policy restriction and demographic questions. The effects of age, sex, drinking patterns and income over time on three items addressing restriction of alcohol availability were assessed using a factorial ANOVA.

Results: Although availability items are among the less popular policy restrictions put forward in the NDSHS, the decrease in popularity found up to 2004 actually represented a turning point with an increase in support since then. Though some groups have consistently higher rates of support than others for policy restrictions, the rate of change in support was uniform across demographic and drinking groups.

Discussion and Conclusions: Despite no obvious catalyst there has been an increase in support for alcohol policy restriction as it relates to general availability and accessibility since 2004. Furthermore this increase does not appear to be a reflection of a change in a specific group of people but appears to be occurring across the Australian population.
While the policy process is complex and messy (1), there is little doubt that public opinion is a key contributor to policy decisions in democratic countries (2, 3). In alcohol policy this is clearly true – public attitudes constrain the types of policy interventions considered by governments, which is one of a range of reasons why popular but ineffective approaches (e.g. school-based education programs) are widely implemented, while unpopular but effective approaches (e.g. price/tax increases, restrictions on availability) are not (4).

Attitudes to alcohol policies are subject to external influences and have shown substantial changes historically. In Victoria, support for local-level prohibition reached more than 40% in the 1920s and more than 60% of the population voted to maintain mandatory 6pm closing in 1956 (5), policy positions which have since completely fallen out of favour. Internationally, a number of studies have examined shifts in attitudes over time. In Finland, Österberg (6) documented the gradual liberalisation of policy attitudes through the 1980s and early 1990s, followed by a trend towards more restrictive views in the late 1990s. In Finland the proportion with the opinion that alcohol policy restrictions should be relaxed rose from 10% to 40% during the 1980s, but between 1994 and 2007 fell back again to 10% (7). These changes partly reflect and respond to trends in actual policy in Finland, which was liberalised significantly in 1994 as Finland joined the European Union (6). Similarly, policy attitudes in Norway became increasingly liberal throughout the 1990s, but gradually became more restrictive in more recent years (8). Swedish research highlights explicit attempts to modify public perceptions of the retail alcohol monopoly, Systembolaget, which coincided with significant increases in public support from the late 1990s onward for maintaining the monopoly (9). In contrast, recent US research shows steady declines in support for restrictive alcohol policies throughout the 1990s (10).

Recent Australian studies have examined the level of support across different domains of alcohol policy. In general support for regulation of licensees, high risk drinkers and alcohol promotion was high, but support for measures with the strongest evidence base - reducing availability or increasing tax - was considerably lower (11). Thus, although Australians support many measures designed to reduce the harm caused by alcohol (11), they tend to favour measures with less evidence of effectiveness more than universal, evidence-based policy measures.

In studies from several countries, including Australia, support for restrictive policies tends to be highest among older people, women and light or non-drinkers. For example, a recent
Canadian study identified five clusters of policy attitudes, with younger, male heavy-drinkers the most likely to support liberal policies and older, well-educated, female, light-drinkers most in favour of restrictions (12). These findings have been broadly replicated in a range of settings (13-15). Whether the level of support shifts up and down uniformly in different demographic groups as overall support changes is less clear.

In previous analyses of Australian data, Wilkinson, Room and Livingston (16) identified a steady reduction in support for restrictive alcohol policies between 1995 and 2004. These trends mirrored broader societal shifts in the regulation of alcohol, as many jurisdictions liberalised their alcohol control systems under the influence of National Competition Policy (17, 18). More recently, some researchers have detected a shift in the public discourse around alcohol in Australia. For example, Fogarty and Chapman (19) found that, between 2005 and 2010, around half of television news stories relating to alcohol featured a public health actor and nearly two-thirds discussed alcohol controls. Similarly, a study of newspaper reporting on alcohol between 2000 and 2011 identified a strong increasing trend in stories with a public health focus in Australian newspapers (20).

Given these suggestions of recent shifts in the public discourse around alcohol in Australia, this study will examine recent trends in Australian public attitudes to evidence-based alcohol policies, with a particular focus on ascertaining how support for policy has changed since the previous studies by Wilkinson et al. (16) and Tobin et al. (11). The study will explore the overall trends in support for public health oriented policy options and will examine whether gender, age, income and drinking pattern are related to changes in policy support over time.

**Method**

**Sample**

The sample consisted of respondents to the National Drug Strategy Household Survey (formerly the National Drug Survey) 1995-2010. Response rates for the survey ranged between 46 and 57%. NDSHS surveys are given to probability samples of the general population stratified by region. Further details of the survey methodologies are available in the NDSHS survey reports (21-24). Participants were excluded from analyses if they did not answer any of the policy questions in their survey or if the respondent was younger than 18 (the legal drinking age in Australia) at the time of the survey. Table 1 shows the number of participants included in the current study from each survey from 1995 to 2010.
Data on alcohol consumption was collected in each of the survey waves using the standard graduated-frequency survey items. Using data from these items, three roughly equal groups based on drinking patterns were developed, the Abstainer/Light group drank nothing or less than one drink a week, heavy drinkers drank five or more in a session at least once a month and the remaining drinkers were placed in the moderate group. As can be seen in Table 1, these criteria resulted in three groups that were fairly equal in size consistently over the six time points.

Finally respondents were also grouped on the basis of gender, age (<36, 36-55 and 56+) and household income. In the case of household income two roughly equally sized groups were made from the categorical response options in each survey, creating high and low income groups. Due to the high number of respondents who chose not to answer the question on income, a third household income group for missing data was used in the analyses in this paper.

**Materials**

Data was taken from the NDSHS in 2001, 2004, 2007 and 2010. Figures presented in this paper from 1995 and 1998 are taken directly from Wilkinson and colleagues’ paper (16). The focus for the current paper is on the questions on alcohol policy attitudes, as well as demographic information and questions in the surveys on the respondent’s alcohol consumption. The number of alcohol policy questions increased from 11 in 1995 to the 16 that have been asked since 2004 (please refer to Table 2 for the wording of the items).

Response categories (and the score assigned here to each) were: strongly support (5), support (4), Neither support nor oppose (3), Oppose (2), and Strongly oppose (1). Those responding “Don’t know enough to say” were excluded from all analyses.

**Analysis**

All data analysis was conducted using Stata version 12 (25), except the Monte Carlo parallel analysis for the principal components analysis which was done using a specific generator for this purpose (26). Given the difficulties in comparing weighted data across different surveys and time points, unweighted data is presented in this paper. A factorial ANOVA with the subtotal of the first three items in the survey as the dependent variable and gender, age, drinker income and year as the independent variables (2 x 3 x 3 x 6) was calculated. As the primary interest here is change over time, only two and three-way interactions involving the year of the survey are included in the model.
Results

Mean scores for each of the 16 items, where a higher number indicates a higher level of support for each item, from each survey year from 1995 to 2010 are shown in Table 2. A common pattern in many of the items and indeed the total score is a decrease in popularity for public health-oriented policies from 1995 to 2001, and then an increase in popularity of these items from 2004 to 2010. This was the case for items addressing increasing the price, reducing outlets, reducing the trading hours, raising the drinking age and limiting TV advertising. Some items fell in popularity over the 15 years in question: those related to serving low alcohol at events, increasing dry zones, stricter serving laws and stricter drink driving penalties. These last two items remained extremely popular throughout, with the average score falling between support and strong support from 1995 to 2010. The banning of sponsorship in sport received a steady increase in support since 1995.

The first three items in the scale were chosen for closer examination, since they were the three items that aimed to restrict affordability, availability and accessibility of alcohol, the most efficacious alcohol control measures (27), and had been in the survey from 1995 to 2010. Principal components analysis was run for a scale made of the sum of these three items, both as an entire data set and for each year; analysis of eigenvalues in conjunction with a Monte Carlo parallel analysis found that these three items were unidimensional and suitable to be treated as a short scale on their own. Therefore scores were generated by taking the mean of each individual respondent’s score in these three items. This new score, referred to as General Availability Attitudes (GAA) score, is shown in Table 2 – again, a score of 5 implies strong support and 1 implies strong opposition. Similar to its three component items, support for the component total decreased from 1995 to 2001 and increased from 2004 to 2010.

Factorial ANOVA with the GAA score as the dependent variable and gender, age, drinker income and year as the independent variables was used to test whether this pattern was due to certain sections of the Australian population changing their views or to see if the attitude changes were across the board. As the primary variable of interest is the year of the survey, only interactions involving the year of the survey were included in this model. Furthermore, in the interests of parsimony, only two- and three-way interactions were included. The results of this ANOVA are shown in Table 3.
As can be seen in Table 3, all of the main effects and most of the interactions were significant; however, given the large sample size it is important to look also at the effect size. The partial eta squared, the proportion of the variance that can be explained by that variable that has not been explained by other variables, is also reported in Table 3. The drinking status of the respondent is the most important independent variable; however this effect size is still fairly small. Furthermore the effect sizes for all the interactions are quite low.

A closer examination of these effect sizes can be seen in Figures 1 and 2, where the score for each interaction is shown. Please note that due to the consistently large number of respondents who refuse to answer the questions on income (12-23%), missing data on the household income variable was treated as a category on its own in the ANOVA. These plots were run with the missing category included and no differences between this category and the high and low income groups could be seen, so for clarity they are not included in the following figures. In Figure 1 all four two-way interactions are shown. Overall, the pattern for the three drinking types and by age, gender and income remains roughly the same, with a decrease in support up to 2004 and then a subsequent increase. The exception to this rule is respondents aged 56 and over, who seem to have steadily increased their support for alcohol availability policy restrictions.

In Figure 2 the three-way interactions with graphs are shown. In the three graphs with an age based split, those respondents aged over 56 stand out as not fitting the pattern for the entire sample. As would be expected given the results shown in Figure 1, older respondents were less likely to follow the curve shown in the other age groups and instead increased in support over time regardless of income or drinker status, this was primarily driven by the fact that the scores rose from 1995 to 1998 rather than dropping. There was no real difference in GAA score between income groups once participants are split by age, suggesting that age is a driving factor in income differences in policy support. In the case of respondents age 55 and under, the pattern of a decrease then increase in support remained consistent regardless of drinker status and income.

The differences in drinker type remained large but relatively consistent when split by gender or age. For abstainers, there is an increase in support for alcohol policy restrictions from 1995 to 1998 that does not fit the pattern for the two groups of drinkers; however from 1998-2010 this group seems to follow the pattern of the other groups. Overall most of the groups kept to the pattern of a fall then rise in support, with the exception of older respondents,
particularly abstaining males, who showed an increase in support from 1995 to 1998 that was not present in the other groups.

**Discussion**

Analysing trends until 2004, Wilkinson and colleagues noted a decline in support for harm reduction policies pertaining to alcohol (16). However, as this updated analysis shows, 2004 was a turning point in recent views on alcohol policy in Australia. Since then support for many of these policies steadily increased, particularly for evidence-based policies on restricting availability and accessibility of alcohol. It is important to stress, however, that in line with previous research; these items are still less popular than the other, more targeted policy options that were put forward in the survey (11).

This pattern of a decrease and then an increase in popularity for the three items in focus for the current study does not appear to be caused by particular demographic groups changing attitudes, but rather is a significant change across the entire population. Even though many of the interactions between year of survey and other variables were significant, graphic representation of these interactions show that for most groups there was the same dip in popularity to 2004 and then a subsequent rise. The primary exception to this was older respondents, whose support for restrictions rose fairly steadily from 1995, and heavy drinkers, whose support for restrictions seemed to rise from 1995 to 1998 before dropping and rising in line with the rest of the sample. Evidence of an interaction thus appears to be restricted to the trends before 2004, and the rise in support since then seems to be more evenly found across the board.

This study is not without limitations. Firstly, all the usual cautions related to the interpretation of survey results needs to be applied. The completion rates for the surveys, although fairly stable, means that the samples are less than fully representative of the population. Respondents’ differing interpretations of the items probably introduces some noise into the results. Secondly, there was a significant minority of respondents who refused to answer the question on household income, enough for a missing category for the factorial ANOVA, and therefore those analyses pertaining to income should be interpreted with caution.

Unlike shifts in policy support in the Nordic countries connected particularly to EU membership or association (6, 8), the turning point in support for restrictive policy options in Australia does not have an obvious precursor. That the policy options with the highest
increases in support are those most often supported by public health advocates raises the possibility that these changes represent the successful outcome of public health advocacy. This is supported by recent research highlighting the increasingly prominent role of public health specialists and researchers in media coverage of alcohol in Australia (19). Alternatively, both of these trends may simply reflect growing public concern with increasing rates of alcohol-related harm in Australia (28).

Finally, it is worth noting that the alcohol policy environment has changed substantially throughout the 2000s, with increasingly liberal policies in many states and a steady expansion in the number and type of outlets. These shifts in policy attitudes may reflect a proportion of the population who were happy with the policy environment in the early 2000s but who are concerned with these recent policy changes. Further research into public attitudes towards alcohol more broadly is required to develop a clearer picture of the underlying causes of the shifts identified in this study. The findings presented here suggest improved public support for evidence-based alcohol policy options in Australia, and thus a potential increase in the likelihood of such policies being implemented over the coming years.
Acknowledgement

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Table 1

*Number of participants per year and percentage who were abstainers, light or heavy drinkers*

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>Response Rate (%)</th>
<th>Administration Method</th>
<th>Abstainer/Light (%)</th>
<th>Moderate (%)</th>
<th>Heavy Drinker (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>3,546</td>
<td>57</td>
<td>PISC</td>
<td>34.8</td>
<td>33.9</td>
<td>31.3</td>
</tr>
<tr>
<td>1998</td>
<td>8,084</td>
<td>58</td>
<td>PISC + D&amp;C</td>
<td>28.2</td>
<td>36.7</td>
<td>35</td>
</tr>
<tr>
<td>2001</td>
<td>17,652</td>
<td>50</td>
<td>D&amp;C + CATI</td>
<td>29</td>
<td>36.6</td>
<td>34.4</td>
</tr>
<tr>
<td>2004</td>
<td>16,809</td>
<td>46</td>
<td>D&amp;C + CATI</td>
<td>30</td>
<td>35.6</td>
<td>34.4</td>
</tr>
<tr>
<td>2007</td>
<td>14,506</td>
<td>49.3</td>
<td>D&amp;C + CATI</td>
<td>28.8</td>
<td>38.7</td>
<td>32.6</td>
</tr>
<tr>
<td>2010</td>
<td>20,249</td>
<td>50.6</td>
<td>D&amp;C</td>
<td>29.5</td>
<td>38</td>
<td>32.5</td>
</tr>
</tbody>
</table>

PISC = Personal Interview followed by self completion for sensitive questions; D&C = Drop and Collect; CATI = Computer Assisted Telephone Interview
Table 2.
Mean Scores on Attitudes to Policy Items in the National Drug Strategy Household Survey 1995-2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increasing the price of alcohol</td>
<td>2.82</td>
<td>2.63$^a$</td>
<td>2.53$^{ac}$</td>
<td>2.57$^a$</td>
<td>2.71$^{ab}$</td>
<td>2.81$^{bc}$</td>
</tr>
<tr>
<td>2. Reduce the number of outlets that sell alcohol</td>
<td>3.02</td>
<td>2.96</td>
<td>2.92$^a$</td>
<td>2.93$^a$</td>
<td>3.06$^b$</td>
<td>3.10$^{ab}$</td>
</tr>
<tr>
<td>3. Reducing trading hours for all pubs and clubs</td>
<td>3.04</td>
<td>2.88$^a$</td>
<td>2.94$^{ac}$</td>
<td>2.95$^a$</td>
<td>3.16$^{ab}$</td>
<td>3.42$^{bc}$</td>
</tr>
<tr>
<td><strong>General Availability Attitudes Score (mean score of items 1, 2 and 3)</strong></td>
<td><strong>2.96</strong></td>
<td><strong>2.82</strong>$^{ac}$</td>
<td><strong>2.80</strong>$^a$</td>
<td><strong>2.82</strong>$^{ac}$</td>
<td><strong>2.98</strong>$^b$</td>
<td><strong>3.11</strong>$^{ab}$</td>
</tr>
<tr>
<td>4. Serving only low alcohol drinks, such as low alcohol beer at sporting events or venues</td>
<td>3.92</td>
<td>3.81$^a$</td>
<td>3.71$^{ac}$</td>
<td>3.65$^c$</td>
<td>3.64$^a$</td>
<td>3.65$^a$</td>
</tr>
<tr>
<td>5. Increase the number of alcohol free events</td>
<td>3.86</td>
<td>3.75$^a$</td>
<td>3.85$^c$</td>
<td>3.80$^{ac}$</td>
<td>3.80$^a$</td>
<td>3.80$^a$</td>
</tr>
<tr>
<td>6. Increase the number of alcohol free zones or dry areas</td>
<td>3.90</td>
<td>3.80$^a$</td>
<td>3.84</td>
<td>3.80$^{ac}$</td>
<td>3.81$^a$</td>
<td>3.84$^b$</td>
</tr>
<tr>
<td>7. Raising the legal drinking age</td>
<td>3.33</td>
<td>3.15$^a$</td>
<td>3.22$^{ac}$</td>
<td>3.23$^a$</td>
<td>3.43$^{ab}$</td>
<td>3.51$^{ab}$</td>
</tr>
<tr>
<td>8. Stricter enforcement of the law against serving customers who are drunk</td>
<td>4.48</td>
<td>4.29$^a$</td>
<td>4.30$^a$</td>
<td>4.26$^{ac}$</td>
<td>4.29$^{ab}$</td>
<td>4.29$^{ab}$</td>
</tr>
<tr>
<td>9. More severe legal penalties for drink driving</td>
<td>4.50</td>
<td>4.45</td>
<td>4.42$^a$</td>
<td>4.40$^a$</td>
<td>4.42$^a$</td>
<td>4.41$^a$</td>
</tr>
<tr>
<td>10. Restrict late night trading of alcohol</td>
<td></td>
<td></td>
<td></td>
<td>3.50</td>
<td>3.56$^c$</td>
<td>3.75$^b$</td>
</tr>
<tr>
<td>11. Stricter monitoring of late night licensed premises</td>
<td></td>
<td></td>
<td></td>
<td>4.00</td>
<td>4.02$^a$</td>
<td>4.13$^b$</td>
</tr>
<tr>
<td>12. Limit advertising for alcohol on TV until after 9:30pm</td>
<td>4.04</td>
<td>4.03</td>
<td>4.01$^a$</td>
<td>4.07$^a$</td>
<td>4.10$^b$</td>
<td>4.10$^b$</td>
</tr>
<tr>
<td>13. Banning alcohol sponsorship of sporting events</td>
<td>3.14</td>
<td>3.32$^a$</td>
<td>3.41$^{ac}$</td>
<td>3.51$^{ac}$</td>
<td>3.58$^{ab}$</td>
<td>3.58$^{ab}$</td>
</tr>
<tr>
<td>14. Requiring guidelines on all alcohol containers</td>
<td>3.99</td>
<td>3.98</td>
<td>4.02$^b$</td>
<td>3.92</td>
<td>3.91</td>
<td>3.84$^{bc}$</td>
</tr>
<tr>
<td>15. Increasing the size of standard drink labels on alcohol containers</td>
<td>3.95</td>
<td>3.92</td>
<td>3.91</td>
<td>3.84</td>
<td>3.84$^{bc}$</td>
<td>3.84$^{bc}$</td>
</tr>
<tr>
<td>16. Increasing the tax on alcohol products to pay for health, education, and the cost of treating alcohol related problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.07</td>
<td>3.15$^b$</td>
</tr>
<tr>
<td><strong>Total</strong>$^d$</td>
<td><strong>3.64</strong></td>
<td><strong>3.55</strong>$^a$</td>
<td><strong>3.56</strong>$^a$</td>
<td><strong>3.56</strong>$^a$</td>
<td><strong>3.64</strong>$^b$</td>
<td><strong>3.68</strong>$^{ac}$</td>
</tr>
</tbody>
</table>

$^a$significantly different to the 1995 score, $p < .001$.  
$^b$significantly different to the 2004 score (2007 & 2010 only), $p < .001$.  
$^c$significantly different to the year before (if not covered by $^a$ or $^b$), $p < .001$.  
$^d$Total is made up of the eleven items in all six surveys (1,2,3,4,5,6,7,8,9,12,13)