Potential financial impact on television networks of a ban on alcohol advertising during sports broadcasts in Australia

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Alcohol-related harm is a major problem in Australian society. In 2015, alcohol consumption was the sixth leading risk factor (4.5%) for disease burden in Australia, and was associated with over 30 diseases and injuries, including alcohol use disorders, eight types of cancers, liver disease, road traffic accidents, suicide, self-harm and violence.1 In adolescents, alcohol use contributes significantly to two leading causes of death: suicide and road accidents.2,3 Australians have one of the highest rates of per capita consumption of alcohol in the world.4 Approximately 79% of Australians aged 14 years or older drink alcohol, with consumption per drinker estimated to be 13.4 litres of pure alcohol per year.5 While harmful drinking trends have declined slightly in recent years, 25% of people still consume alcohol at short-term high-risk levels (defined as more than four drinks in one occasion, by National Health and Medical Research Council (NHMRC) guidelines5) at least once by National Health and Medical Research Council (NHMRC) guidelines5) at least once a month.6 High-risk levels of alcohol use are most prevalent among young adults aged 18-24 years (42%).6 Estimates of the total cost to society of alcohol use in Australia ranges between A$9.1 billion to A$36 billion.7,8 Alcohol use is influenced and driven by many interconnected factors, including psychological, social, behavioural and environmental factors. Importantly, marketing of alcohol has been identified as a key driver of alcohol use.5 The Australian alcohol industry invests heavily in marketing each year, with the most recent available study estimating that its total advertising spend was in excess of A$220 million in 2011.9 A key focus of marketing activity is to reinforce brand recognition, with the aim of encouraging brand switching among existing drinkers.10 A second aim is to increase product sales by targeting new drinkers.11 The influence of alcohol marketing on drinking behaviour increases with cumulative exposure to alcohol marketing communications12 and the range of marketing techniques and channels utilised.13-16 For young people, exposure to alcohol marketing has a clear influence on their alcohol use, including increasing the likelihood that they will start alcohol use at a younger age.17-19 Alcohol companies in Australia use a variety of marketing techniques as part of their integrated marketing campaigns, including advertising and sponsorship during sports broadcasts.20 Marketing during sports broadcasts allows brands to reach broad audiences and the relatively long duration of sports broadcasts allows for repetition and

Abstract

Objective: This study aimed to assess the potential financial impacts on Australian television networks of a ban on alcohol advertising during sports broadcasts.

Methods: We analysed television advertising data from Nielsen, a commercial market research company. The data included details of all advertisements (ads) for the 10 highest-spending alcohol brands on free-to-air television networks in the five largest capital cities in Australia over a 12-month period (November 2018–October 2019). We estimated alcohol advertising spend during sports broadcasts. Financial value per network was estimated using ad duration and total spend per channel.

Results: There were 10,660 alcohol ads (average of 75 minutes per week) shown during sports broadcasts, amounting to A$14.4 million in revenue to television networks. Forty-five per cent of these ads were at children's viewing times. Channel Seven received the largest amount of alcohol advertising revenue (A$20.8 million), of which A$10.8 million (52.0%) was during sports broadcasts (0.5% of its total advertising revenue).

Conclusions: Alcohol advertising during sports broadcasts is pervasive but contributes a relatively small proportion of revenue for television networks.

Implications for public health: A ban on alcohol advertising during sport broadcasts is unlikely to have major financial impacts on broadcasters, whilst the health and social benefits are potentially substantial.

Key words: alcohol marketing, television, sport, children
memory building.\textsuperscript{21} Alignment with a healthy activity, such as sport, is highly beneficial for alcohol brands as the association can obscure the health risks related to their products.\textsuperscript{22} In Australian sports and, in particular, the most popular spectator sports such as Australian rules football, rugby league and cricket, alcohol marketing is commonplace.\textsuperscript{23-28} Estimates of sport-related alcohol industry marketing expenditure in Australia vary between A$50 million and A$300 million.\textsuperscript{29} Exposure to alcohol marketing during sports broadcasts can be particularly problematic for children aged 8-12 years, who tend to become fascinated with real-life heroes, such as sport stars.\textsuperscript{30} Children are highly aware of sports celebrity endorsement of alcohol brands,\textsuperscript{31} and often link alcohol products with positive characteristics.\textsuperscript{32} Additionally, there is evidence that alcohol sponsorship of sports contributes to the development of a positive attitude towards alcohol in children.\textsuperscript{31} Moreover, there are established links between alcohol, major sporting events, and domestic violence.\textsuperscript{33} As such, the World Health Organization (WHO) recommends that countries reduce the impact of alcohol marketing on young people and adolescents by adopting a set of comprehensive policy options.\textsuperscript{34}

In Australia, alcohol marketing associated with sport is regulated through a co-regulatory approach that includes a mix of government standards and voluntary industry codes of practice. The Federal Government’s Children’s Television Standards (CTS) include restrictions on the advertising of alcohol to children during designated ‘children’s viewing’ times. Industry-developed codes of practice operate alongside the government regulations and include restrictions on alcohol advertising on free-to-air television during the day (5am-8.30pm, except for 12.00pm-3.00pm on school days). Critically, however, these self-regulatory codes allow for an exception wherein restrictions on alcohol ads do not apply during the broadcast of sports programs on public holidays and weekends (from 6:00pm on Fridays).\textsuperscript{35,36}

Several reports have concluded that the current regulatory arrangements are ineffective in preventing the exposure of children to alcohol marketing, in particular through sports.\textsuperscript{26,37} Accordingly, several community organisations, not-for-profit organisations and health groups have called for mandatory regulations restricting alcohol marketing associated with sport in Australia.\textsuperscript{38-40} However, there is limited available information regarding the potential financial costs of eliminating alcohol advertising associated with sport. This study aimed to investigate the extent of alcohol advertising during televised sports broadcasts in Australia, in order to assess the potential financial impact of removal of alcohol advertising associated with high-profile sports on Australian free-to-air television networks.

\textbf{Methods}

\textbf{Data}

Data from Nielsen, a commercial market research company, were used to estimate industry spend on advertising in sports on free-to-air television and the associated revenue for broadcasters. Nielsen uses advertising prices and logs from their partnering media owners, including free-to-air channels, and collects advertising data independently to provide an estimate of spending on advertising. The Nielsen data included advertising spots (advertising spaces) broken down by brand and combined advertising spend of the top 10 alcohol brands on free-to-air television during a 12-month (53-week) period (28 October 2018–2 November 2019) to limit bias from seasonality of sports codes and monthly marketing variations. These data related to advertising in major metropolitan areas in Australia only, defined by Nielsen to include Sydney, Melbourne, Brisbane, Adelaide and Perth. Eighty television channels were included, from the following free-to-air networks: Seven, Nine, Ten and SBS. Advertising revenue for each television network was obtained from the publicly available financial reports of each organisation.

\textbf{Analysis approach}

We coded Nielsen advertising data for each sport, duration of advertisement (ad) and timing (adult vs. children’s viewing times). Adult viewing time was defined as between 8.30pm and 5am on any day, and 12pm and 3pm on school days, in line with existing regulations.\textsuperscript{35,36} Children’s viewing time was defined as times outside of adult viewing time.

Cost per ad on each TV channel was estimated by dividing the total advertising spend on the channel (from the top 10 major metropolitan TV alcohol advertisers) by the number of alcohol ads from those advertisers on that channel. For example, total alcohol advertising spend on Channel 10 Melbourne was $1,252,553 /1,324 (number of ads) = $946 per ad. This calculation did not consider variation in the value of specific advertising spots on a particular channel. The costs were aggregated to estimate the annual revenue from alcohol advertising during sports broadcasting (top 10 brands, major metropolitan areas only) per network (e.g. for Network Ten, we aggregated data on the number of ads during sports broadcast from 15 channels, such as 10 Melbourne, 10 Adelaide etc.). We expressed the annual revenue from alcohol advertising during sports broadcasting as a proportion of total advertising revenue for each network.

We reported advertising data separately for sports that are part of the Coalition of Major Professional and Participation Sports (COMPPS) and other sports. The COMPPS sports (Australian rules football, cricket, rugby league, rugby union, soccer, netball and tennis) are generally considered major sports in Australia as they attract large viewing audiences.

\textbf{Results}

Between 28 October 2018 and 2 November 2019, the top 10 alcohol advertisers placed 66,298 alcohol ads on free-to-air television in the five largest capital cities in Australia, of which 10,660 were during sport broadcasts (average of 201 per week). The total duration of alcohol ads during sports broadcasts over the period was 3,975 minutes (average of 75 minutes per week).

The total revenue of alcohol ads to broadcasters over the period was estimated at A$42.3 million, of which approximately A$14.4 million (33.9%) was during sports broadcasts (Table 1). Seven Network received the largest amount from alcohol advertising (A$20.8 million), of which A$10.8 million (52%) was during sports broadcasts (Table 2). Nine Network followed with an estimated A$14.8 million revenue from alcohol ads, of which an estimated A$2.9 million (19.6%) was during sports broadcasts.

The number and duration of alcohol ads per network and sport are shown in Supplementary Table 1, and the estimated revenue from alcohol advertising to each
broadcaster per sport is shown in Table 2. The estimated revenue from alcohol ads during broadcasts of all COMPPS sports was A$13.6 million (94.6% of total alcohol ad spend on sports/sports programs). Three sporting codes attracted approximately 89.5% of the total sports alcohol advertising spend by the top 10 alcohol advertisers on Free-to-Air TV, with Australian rules football (A$5.7 million), cricket (A$5.2 million) and rugby league (A$2 million) broadcasts attracting most revenue from alcohol advertisers. Seven Network received most of its alcohol ad revenue during Australian rules football (A$5.2 million) and cricket (A$4.9 million), whereas Nine Network received the majority during rugby league broadcasts (A$1.9 million).

Of the 10,600 alcohol ads in sports broadcasts, 4,767 (44.7%) were during children's viewing times (refer to Supplementary Table 1). The total duration of alcohol ads in sports broadcasts during children's viewing times was 1,792 minutes (average of 34 minutes per week) (Supplementary Table 1). TV network revenue from alcohol advertising in sports broadcasts during children's viewing times was estimated at A$6.2 million (Table 3). More than two-thirds (68.7%) of Network Ten's alcohol advertising revenue from sports broadcasts was during children's viewing times. The Seven Network received an estimated A$5.1 million for ads during children's viewing time (47.2% of their alcohol ad revenue).

In terms of children's viewing time, alcohol advertisers spent the largest amount in cricket broadcasts (approximately A$28 million) on a total of 1,725 alcohol ads. This was followed by spend of over A$2 million on 1,564 alcohol ads in Australian rules football broadcasts during children's viewing times and A$0.6 million spent on 516 alcohol ads in rugby league broadcasts during children's viewing times. While alcohol ad spend during rugby union broadcasts was substantially lower (A$108,000), over two-thirds (70.7%) of ads were broadcast during children's viewing times.

According to Seven Network's 2019 annual report, it had a total advertising revenue of over A$1 billion.42 We estimated that 1.4% of their total advertising revenue was from top 10 alcohol advertisers, 0.3% from alcohol ads in sports broadcasts, and 0.07% from alcohol ads in sports broadcasts during children's viewing times.

**Discussion**

Over a 12-month period (2018–2019), the top 10 alcohol advertisers placed 10,660 alcohol ads (an average of 201 ads and 75 minutes duration per week) during sports broadcasts on free-to-air television in the five largest capital cities in Australia. Forty-five per cent of these ads (average of 34 minutes per week) were during children's viewing times. We estimated the total alcohol advertising spend by the top 10 alcohol advertisers in Australia at A$42.3 million. A$14.4 million (34%) of the total alcohol advertising spend was in sports broadcasts, of which A$6.2 million (43%) was during children's viewing times. Alcohol advertising during sports broadcasts was predominantly during the three sports that attract the largest television audiences: Australian rules football, cricket and rugby league. These three sports brought in the vast majority (89%) of the total alcohol advertising revenue for networks from sports broadcasts. Seven Network and Nine Network received most revenue from alcohol advertisers in total (A$20.8 million and A$14.8 million respectively) and during sports broadcasts (A$10.8 million and A$2.9 million respectively). Seven Network was also the largest recipient (A$5.1 million) of alcohol advertising revenue from sports broadcasts during children's viewing time.

Our study provides strong evidence that there is a substantial number of alcohol ads broadcast during sports programs at times classified as children's viewing times. These high levels of alcohol advertising are enabled by the exemption to the regulations that allows alcohol advertising during the broadcast of sports programs on weekends.
and public holidays. Our results are in line with a previous Australian study (2015), which found that during the day (6am to 8.29pm) most alcohol advertising was in and around sports programs (87%), whereas during the evening (8.30pm to 11.59pm) most alcohol advertising was during non-sports programs (86%). The potential for children to be exposed to alcohol advertising is further exacerbated by the fact that many children also watch television after 8.30pm. Indeed, there is evidence that Australian children are exposed to alcohol advertising during sports broadcasts on television at similar rates to young adults.

For the alcohol industry, aligning their brands with sports is an important marketing strategy and television remains a prominently used promotion channel. According to WARC, a global marketing intelligence company, the alcohol industry spent the majority of their annual marketing budget, A$42.6m, on Australian TV advertising in 2019 – an estimate that closely aligns with our study’s results ($42.3 million).

Seven and Nine Networks reportedly earned over A$1 billion of advertising revenue each in 2019. Our study indicates that removal of alcohol advertising in sports broadcasts is likely to reduce each network’s advertising revenue by a maximum of 1% (A$10 million) in total, or a maximum of 0.5% (A$5 million) if during children’s viewing times only. The actual impact of removal of alcohol advertising in sports broadcasts on network revenue is likely to be substantially lower, given that replacement advertisers are highly likely to be found, particularly given the popularity of sports broadcasts in Australia. Accordingly, the removal of alcohol advertising during sports broadcasts would likely result in minimal (if any) negative financial impact for television networks, whilst substantially reducing the exposure to alcohol advertising on television for children and adults.

Currently, alcohol brands in Australia use a wide range of marketing channels, including television advertising, sponsorship, social media marketing, point-of-sale promotion and e-sports, as part of integrated marketing communications. Tobacco-related research showed that when marketing activities were only partially restricted (e.g. in one media channel, such as television), advertisers diverted their promotional activities to non-restricted media channels. Accordingly, policy makers seeking to reduce exposure to alcohol marketing need to implement comprehensive regulatory approaches that span current and emerging marketing techniques.

**Strengths and limitations**

This study represents the most comprehensive analysis to date of alcohol advertising during televised sports broadcasts in Australia, based on industry-standard data related to the largest broadcast sports in Australia. Nevertheless, the data used for this study had several limitations. Firstly, our calculations are likely to have underestimated alcohol advertising spend for all alcohol advertisers across all of Australia. This is because the data we used from Nielsen represented only the top 10 TV alcohol advertisers for the major metropolitan regions in Australia. Additionally, our study did not include advertising related to all sporting programs (e.g. talk shows) and major sporting events (e.g. Olympic Games, Commonwealth Games, the Superbowl, motorsport and horse racing) that also attract large audiences. Secondly, the data used to estimate television advertising spend by alcohol companies did not include the advertising spend for each ad. Instead, we only had access to data on the advertising spend (and the number of ads to which that spend related) on each channel over a 12-month period. In order to estimate the value of alcohol advertising during sports broadcasts and during children’s viewing times, we calculated an average advertising spend rate for each channel. Accordingly, we were not able to accurately factor in that ‘spot rates’ can vary substantially from program to program and by time of day. Indeed, ads during major sporting events, such as the ‘AFL Grand Final’ (typically held on a Saturday afternoon and classified as ‘children’s viewing time’), would likely cost substantially more than ads during regular sports broadcasts. In this example, this may mean that our analysis of the proportion of advertising spend in sports broadcasts during children’s viewing times is underestimated. Nevertheless, our estimate of the proportion of total advertising revenue that relates to the top 10 alcohol advertisers (2% for Seven Network; 1.4% for Nine Network) is not affected by this limitation. Thirdly, we did not include data from other television channels, including pay television and online streaming platforms. However, as these are subscription-based services, there is likely to be less advertising on these platforms. Finally, the analysis did not include

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**Table 3: Estimated advertising spend (A$) on metropolitan TV by the top 10 alcohol advertisers during sports broadcasts, by network, sport, and children’s and adult viewing times in Australia, 2019.**

<table>
<thead>
<tr>
<th>Television network</th>
<th>Children’s viewing time</th>
<th>Adult viewing time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A$ ‘000 (of row total)</td>
<td>A$ ‘000 (of row total)</td>
<td>A$ ‘000 (of grand total)</td>
</tr>
<tr>
<td>Nine</td>
<td>719 (24.7%)</td>
<td>2,188 (75.3%)</td>
<td>2,906 (20.3%)</td>
</tr>
<tr>
<td>SBS</td>
<td>83 (40.5%)</td>
<td>122 (59.5%)</td>
<td>206 (1.4%)</td>
</tr>
<tr>
<td>Seven</td>
<td>5,113 (47.2%)</td>
<td>5,719 (52.8%)</td>
<td>10,831 (75.5%)</td>
</tr>
<tr>
<td>Ten</td>
<td>279 (68.7%)</td>
<td>127 (31.3%)</td>
<td>406 (2.8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian rules football</td>
<td>2,005 (35.3%)</td>
<td>3,681 (64.7%)</td>
<td>5,687 (39.6%)</td>
</tr>
<tr>
<td>Cricket</td>
<td>2,813 (54.5%)</td>
<td>2,350 (45.5%)</td>
<td>5,163 (36.0%)</td>
</tr>
<tr>
<td>Netball</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Rugby league</td>
<td>636 (31.8%)</td>
<td>1,367 (68.2%)</td>
<td>2,003 (14.0%)</td>
</tr>
<tr>
<td>Rugby union</td>
<td>76 (70.4%)</td>
<td>31 (29.6%)</td>
<td>107 (0.8%)</td>
</tr>
<tr>
<td>Soccer</td>
<td>3 (8.1%)</td>
<td>34 (91.9%)</td>
<td>37 (0.3%)</td>
</tr>
<tr>
<td>Tennis</td>
<td>151 (26.2%)</td>
<td>426 (73.8%)</td>
<td>577 (4.0%)</td>
</tr>
<tr>
<td>Total COMPPS sports</td>
<td>5,684 (41.9%)</td>
<td>7,891 (58.1%)</td>
<td>13,576 (94.6%)</td>
</tr>
<tr>
<td>Other sports/sports programs</td>
<td>509 (65.8%)</td>
<td>265 (34.2%)</td>
<td>774 (5.4%)</td>
</tr>
<tr>
<td>Total advertising spend (% of grand total)</td>
<td>6,194 (43.2%)</td>
<td>8,156 (56.8%)</td>
<td>14,350 (100.0%)</td>
</tr>
</tbody>
</table>

**Notes:**

a. Based on Nielsen Ad Intel data for the period 28 October 2018 – 2 November 2019 with additional classification and calculations applied by the authors.

b. Data relates only to the following cities: Sydney, Melbourne, Brisbane, Adelaide and Perth. ‘Top 10 alcohol advertisers’ is ranked by total estimated alcohol advertising spend on metropolitan television for the period.

c. Data includes the following: TV, internet, online streaming, print and radio. Advertising spend reflects all alcohol brands and is based on Nielsen’s estimated alcohol advertising spend.

d. This study represents the most comprehensive analysis to date of alcohol advertising during televised sports broadcasts in Australia, based on industry-standard data related to the largest broadcast sports in Australia. Nevertheless, the data used for this study had several limitations. Firstly, our calculations are likely to have underestimated alcohol advertising spend for all alcohol advertisers across all of Australia. This is because the data we used from Nielsen represented only the top 10 TV alcohol advertisers for the major metropolitan regions in Australia. Additionally, our study did not include advertising related to all sporting programs (e.g. talk shows) and major sporting events (e.g. Olympic Games, Commonwealth Games, the Superbowl, motorsport and horse racing) that also attract large audiences. Secondly, the data used to estimate television advertising spend by alcohol companies did not include the advertising spend for each ad. Instead, we only had access to data on the advertising spend (and the number of ads to which that spend related) on each channel over a 12-month period. In order to estimate the value of alcohol advertising during sports broadcasts and during children’s viewing times, we calculated an average advertising spend rate for each channel. Accordingly, we were not able to accurately factor in that ‘spot rates’ can vary substantially from program to program and by time of day. Indeed, ads during major sporting events, such as the ‘AFL Grand Final’ (typically held on a Saturday afternoon and classified as ‘children’s viewing time’), would likely cost substantially more than ads during regular sports broadcasts. In this example, this may mean that our analysis of the proportion of advertising spend in sports broadcasts during children’s viewing times is underestimated. Nevertheless, our estimate of the proportion of total advertising revenue that relates to the top 10 alcohol advertisers (2% for Seven Network; 1.4% for Nine Network) is not affected by this limitation. Thirdly, we did not include data from other television channels, including pay television and online streaming platforms. However, as these are subscription-based services, there is likely to be less advertising on these platforms. Finally, the analysis did not include
assessment of the inter-relationship between alcohol advertising on television and alcohol sponsorship arrangements with sports clubs and associations, and the broadcast contracts between sports associations and television networks. Future work in this area should explore these inter-relationships and model the potential financial impact of policies that reduce alcohol marketing associated with elite sport on sporting bodies and elite sport clubs. Such work could explore the potential for hypothesizing a small proportion of alcohol tax revenue to compensate sporting bodies and/or clubs for any projected financial losses.

Conclusions

In Australia, there is currently a strong association between alcohol brands and major sports, with high levels of alcohol advertising during televised sport broadcasts. There have been sustained calls for Australian governments to adopt comprehensive measures to reduce alcohol marketing associated with sport in Australia, including policies to restrict alcohol advertising during televised sports broadcasts. This study shows that removal of alcohol advertising during televised sport broadcasts would likely result in, at most, only relatively small losses (as a proportion of total revenue) for television networks and broadcasters. At the same time, there are likely to be considerable health and social benefits of reduced exposure to alcohol marketing. Removal of current exemptions in regulations that allow for advertising of alcohol in sports broadcasts during designated children’s viewing times represent a clear target for policy change. However, given that a large proportion of children view sport on television outside of designated children’s viewing times, broader regulations are likely to prove much more effective in reducing exposure to alcohol marketing. Assessment of the value for money of comprehensive restrictions on alcohol marketing from a societal perspective should be the subject of future research.

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References


Supporting Information

Additional supporting information may be found in the online version of this article:

Supplementary Table 1: Number and duration of alcohol advertisements on metropolitan TV by the top 10 alcohol advertisers during sports broadcasts, by network, sport, and children’s and adult viewing timesa,b in Australia, 2019.