

'Something's Brewing': The Changing Trends in Alcohol Coverage in Australian Newspapers 2000–2011

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Abstract — **Aims:** The portrayal of alcohol in the news media, including newspapers, plays an important role in influencing societal norms and setting public agendas. We present the first large-scale examination of news coverage of alcohol-related issues in Australian newspapers. **Method:** Content analysis was performed on a sample of alcohol-related newspaper articles ($n = 4217$) published across Australia from 2000 to 2011. Articles were coded for type, theme, prominence, topic slant, opinion slant and sources/spokesperson. **Results:** Across the period, the most common themes were promotion (21%), drink-driving (16%) and restrictions/policy (16%). Themes of restrictions/policy and responsible beverage services became more common over time. Promotion and business-related articles significantly declined over time. Overall, the topic slant of the majority of news related articles disapproved of alcohol use. Disapproval increased over time while approval of alcohol use decreased. While the slant of opinion pieces was predominantly approving of alcohol, this decreased over time. Presence of an alcohol industry representative in articles declined over time. **Conclusion:** The presentation of alcohol use in Australian newspapers became more disapproving over time, which may suggest that harmful alcohol use has become less acceptable among the broader Australian community.

INTRODUCTION

Drinking alcohol is accepted as an integral part of the Australian culture with excessive drinking among youth widely considered a rite of passage (Lincoln and Homel, 2001; Roche *et al.*, 2008). In 2010, 29% of Australians aged 18 and 19 and 22% of those aged 20 to 29 consumed alcohol at levels risking short-term harm (i.e. consumed five or more drinks on one occasion) at least weekly (Australian Institute of Health and Welfare, 2011).

News media, including newspapers, play a key role in setting public agendas and can help to frame discussion of issues (McCombs, 2004). How alcohol use is portrayed in the media can influence the public's notion of acceptable alcohol behaviours (Yanovitzky and Stryker, 2001; Torronen, 2003) with research showing that a higher frequency of alcohol-related issues in the news media increases the salience and importance of that issue among the general public (Harwood *et al.*, 2005). The Australian print media has, at times, glorified excessive alcohol consumption reflecting and perhaps reinforcing positive societal norms about drinking. For example, a former member of the Australian cricket team appeared on the front cover of the magazine lift-out of one of Australia's highest circulating weekend newspapers holding a can of beer in a locker-room with the caption '52 Not Out' (Lalor, 2003). This caption referencing a batsman's cricket score referred to the player's alleged consumption of 52 cans of beer on a flight between Sydney and London in 1989.

Several studies, mostly from the USA, have examined the frequency of reporting and thematic framing of alcohol-related stories in the print media (Jones-Webb *et al.*, 1997; Lemmens *et al.*, 1999; Atkin and DeJong, 2000; Myhre *et al.*, 2002; Torronen, 2003; Nicholls, 2011). Among these studies, anti-alcohol issues and stories relating to harmful consequences of

drinking, such as trauma, violence and drink-driving, dominated the coverage. One set of longitudinal studies from the USA found increased newspaper coverage of drink-driving issues was associated with increased policy attention, which, in turn, prompted changes in drink-driving behaviour and perceptions of the social acceptability of this behaviour (Yanovitzky and Bennett, 1999; Yanovitzky and Stryker, 2001; Yanovitzky, 2002). These findings suggest the role the print media can have in influencing policy as well as individuals' attitudes and behaviours.

Studies of Australian news stories conducted to date have examined news reports of a specific alcohol-related policy issue. One study examined relevant print and television news stories following the implementation of an increase in the excise tax on ready-to-drink spirit-based beverages (Fogarty and Chapman, 2012). Statements supporting the increased tax were slightly more common (52%) than opposing statements (48%). Fogarty and Chapman (2012) analysed news stories covering alcohol-advertising restrictions for the 12 months before and after the release of recommendations to restrict alcohol promotion in 2009. Restrictions were most frequently discussed in relation to sport and television advertising with restrictions on alcohol advertising in newspapers receiving little attention.

The literature on alcohol coverage in news reports suggests that the print news media present predominately negative stories about alcohol and report alcohol consumption as a social problem. However, the majority of these studies suffer methodological weaknesses. For example, some were limited to non-mainstream newspapers (Jones-Webb *et al.*, 1997; Atkin and DeJong, 2000), lacked adequate sample sizes or examined only one category of alcohol coverage (e.g. drink-driving, editorials only) rather than taking a more comprehensive approach. Long-term trends on how alcohol is presented in the Australian print media have not been examined.

The present study provides a comprehensive overview of trends in the frequency, prominence, content and slant of newspaper articles relating to alcohol issues published in Australia over a 12-year period, 2000–2011. This is a period that has seen substantial increases in alcohol-related harm in the Australian community (Livingston, 2008; Pascal *et al.*, 2009; Livingston *et al.*, 2010).

METHOD

Newspapers and search criteria

Newspapers eligible for this study were the daily and Sunday newspapers published in the capital city of each Australian state/territory between 2000 and 2011. In five Australian states/territories, only one daily newspaper (and its Sunday edition) is published. Table 1 shows daily circulation numbers for the selected newspapers. Articles were sourced electronically from the Factiva database that indexes all newspaper articles in plain text format. Based on key words used in previous studies, three different search strategies identified newspaper articles related to alcohol (see Fig. 1 for search terms). Keywords were searched in the title or body of the article.

Sample

The search strategies yielded a total of 40,370 articles. As a sample of newspaper articles can capture equivalent information to a census of articles (Evans and Ulasevich, 2005), a random sample of articles was taken. Following Evans and Ulasevich (2005), article-based rather than date-based sampling strategies were employed. A sampling approach that selects every *n*th unit reflects the variation in media content across different days of the week and maintains a representative sample across a time period (Riffe *et al.*, 2005). For this study, every fifth article was selected within each year and newspaper with 8059 articles retrieved for eligibility testing. Eligible articles were at least five sentences long (including the title), and at least 50% of paragraphs focused on alcohol or

alcohol-related issues. A total of 4217 articles remained for content analysis (52% of sample) (see Fig. 1 for data retrieval and eligibility process). Article images such as photographs and graphs were not available.

Coding procedures

Two trained coders reviewed hard copies of all eligible articles for content analysis. The coding scheme was based on the methods developed for tobacco newspaper coverage by Clegg Smith *et al.* (2002). For each article, the newspaper name and date of publication were recorded, along with article prominence (first four pages of the newspaper or not), type of article [hard news (factual news article), editorial (opinion of newspaper on issues), letter (opinion of member of the public), column or opinion-editorial (opinion of an individual writer), information or review (e.g. Wine festival, beer and wine reviews) and other (e.g. Vox-Pops, question & answer articles)]. Article type was recoded into three categories: hard news, commentary (included editorials, letters, columns, opinion-editorials, information pieces and reviews) and other.

Each article was coded for 'topic slant' which identified the newsworthy event or issue relevant to alcohol. Coders judged whether the topic slant was social disapproval (e.g. long-term health effects of heavy alcohol consumption), social approval (e.g. opening of a new cocktail bar), mixed (e.g. increase in sales of cider beverages while beer sales declined) or neutral about alcohol use. Commentary articles were coded for 'opinion slant' and related to the opinion expressed by the author. This was assessed based on whether the opinion conveyed social disapproval, social approval, was mixed, or neutral about alcohol use.

All alcohol-related articles were coded for each type of source mentioned in the article and the number of each source type. Source categories were adapted from Hughes *et al.* (2010). Source was defined as an individual or organization that gave information or opinion and were quoted/interviewed, gave a statement or published a report that was cited in the article (Hughes *et al.*, 2010). The sources coded for were:

Table 1. Circulation numbers for newspapers used in this paper and recent population estimates for state/territory of the newspaper

Newspaper	State/territory	Number of daily metropolitan newspapers in state/territory	State/territory population (000s) ^b	Circulation (000s) ^a		
				Weekday	Saturday	Sunday
Daily Telegraph/Sunday Telegraph	New South Wales	2	7288	348	318	606
Sydney Morning Herald/The Sun-Herald	New South Wales	2	7288	190	316	410
Herald Sun/Sunday Herald Sun	Victoria	2	5606	482	472	556
The Age/Sunday Age	Victoria	2	5606	191	266	229
The Courier Mail/The Sunday Mail	Queensland	1	4562	195	265	480
West Australian/The Sunday Times	Western Australian	1	2332	189	318	282
The Advertiser/Sunday Mail	South Australia	1	1654	175	239	284
Mercury/Sunday Tasmanian	Tasmania	1	510	41	57	55
The Canberra Times/Sunday Canberra Times	Australian Capital Territory	1	364	30	50	31
Northern Territory News/Sunday Territorian	Northern Territory	1	229	21	30	22

^aCirculation figures from Margaret Gee's *Australian Media Guide (online)*, Sept 2011.

^b3101.0 – Australian Demographic Statistics, *Australian Bureau of Statistics*, Mar 2011.

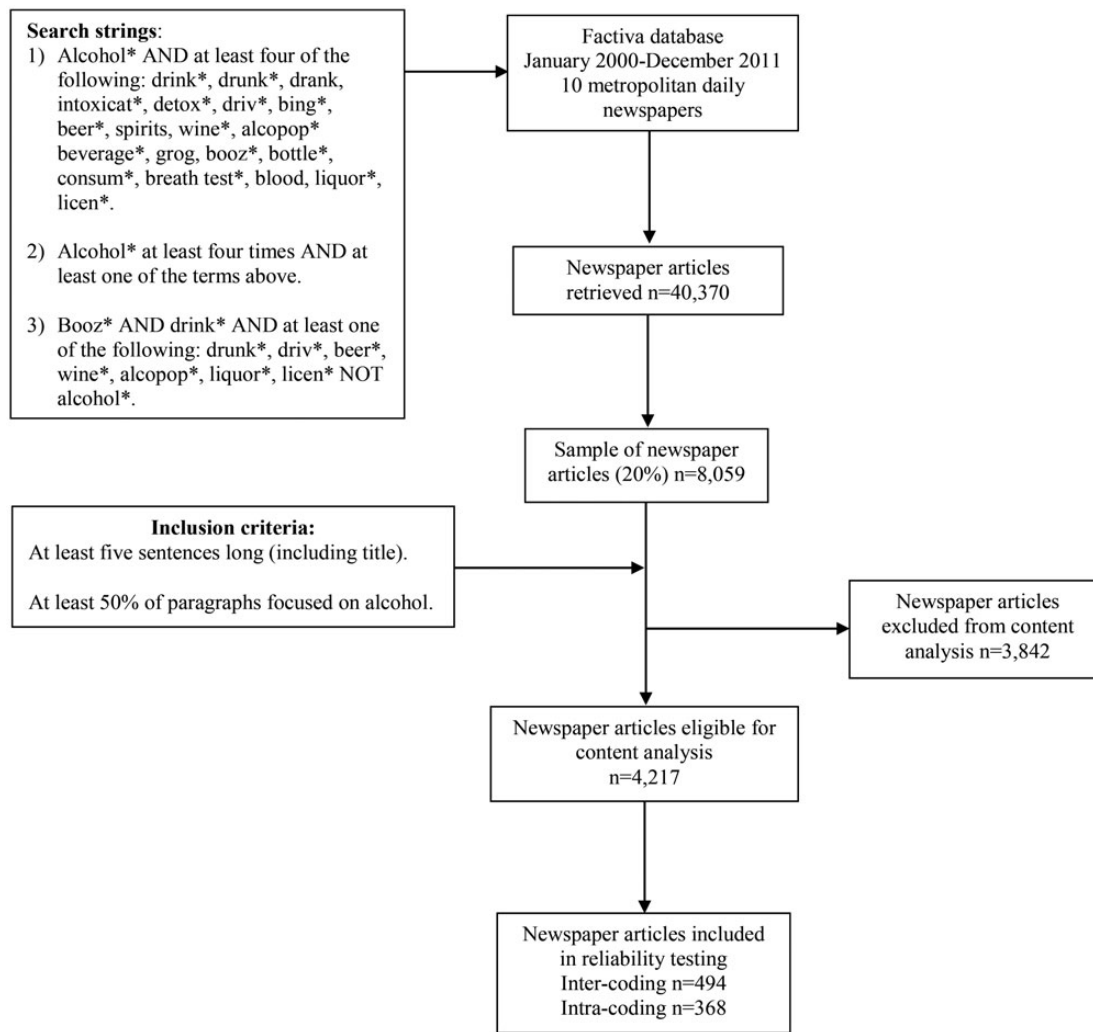


Fig. 1. Flow chart describing process of identifying eligible newspaper articles for content analysis.

alcohol industry (e.g. bar owner); politicians; law enforcement; research organizations; health professional/organization/campaign; community organization; sports industry; general public; victim/accused/family/friends or other. The distinction between research, health and community organizations was difficult at times as some sources fitted all three categories. In these instances, the source was coded as research organization if it primarily conducted research, health if the source provided health services and community if the organization aimed to prevent alcohol problems in the community.

The theme categories utilized by Myhre *et al.* (2002) were adapted and employed in the current study. However, in contrast to Myhre *et al.* (2002), we included restrictions on advertising in the promotion theme reflecting the approach used in the tobacco control area (Clegg Smith *et al.*, 2002). The most dominant theme was identified for each article and coded for 1 of 10 options (see Table 2).

Reliability testing

Lombard *et al.* (2002) guidelines for the calculation and reporting of inter-coder reliability were applied to ensure the two coders were reviewing the articles as consistently as possible. Inter-coder reliability was assessed informally during coder

training ($n = 105$; Krippendorff's alpha ranged 0.68–0.84) and then in a pilot test ($n = 134$; 0.67–0.87). Formal reliability then followed. When all alcohol-related articles within 1-year period were coded, 12% of these articles ($n = 494$) were randomly selected for inter-coding reliability testing. The Krippendorff's alpha for inter-coder formal reliability averaged 0.82 over the five subjective coding categories, suggesting substantial agreement. Individually, the coding categories of type of article, theme, topic slant, opinion slant and number of sources achieved alpha scores of 0.85, 0.78, 0.71, 0.85 and 0.90, respectively.

Intra-coder reliability testing was also conducted and involved re-coding the original article at least 1 month later. Both coders reviewed 5% of alcohol-related articles for each newspaper year ($n = 368$), with pilot test and inter-coded articles excluded. Krippendorff's alpha scores were: 0.90 for type of article, 0.82 for theme, 0.85 for topic slant, 0.92 for opinion slant and 0.90 for number of sources.

Data analysis

Poisson regression analysis was used to assess the extent to which article characteristics changed over time, accounting for the total number of articles coded each year. Where an inadequate fit of the Poisson model was observed, negative

Table 2. The number (%) of newspaper articles by dominant article theme, and proportion of each theme in the first four news pages

Article theme	Description	Total (%)	First 4 news pages (% of each theme)
Alcohol consumption	Alcohol consumption trends; how or why people drink	530 (13)	65 (13)
Trauma	Alcohol-related violent and non-violent crimes, injury; drink-spiking	280 (7)	65 (24)
Drink-driving	Drinking and driving enforcement, legislation and litigation	693 (16)	193 (28)
Prevention	All articles relating to efforts to stop or limit drinking, national and local campaigns, task forces	299 (7)	57 (20)
Health and information	Positive and negative health effects of alcohol use; physical and social aspects of alcohol use	271 (6)	42 (16)
Restrictions/policy	Alcohol taxation and price; venue trading lockouts; warning labels on beverages	661 (16)	150 (23)
Promotion	Critiques of alcoholic beverages, alcohol outlets and alcohol-containing recipes; restrictions on advertising and promotion	867 (21)	22 (3)
Beverage services	Liquor licensing issues such as licence enforcement, legislation and litigation; trading hours, happy hours	348 (8)	70 (21)
Business	Production, sales patterns of beverages, alcohol company stock prices and mergers	251 (6)	19 (8)
Other	Articles that do not match any other themes	17 (0)	3 (19)
Total articles		4217	686 (17)

binominal regression analysis was used. Where appropriate, the incidence rate ratios (IRR) over the entire period and the lowest and highest percentages are reported. Statistical analysis was performed using the STATA version 11.0 software (STATA Corporation, TX, USA).

RESULTS

The lowest number of articles found was in 2000 ($n = 186$) and the highest was in 2009 ($n = 546$) (Fig. 2). The number of alcohol-related articles published differed across the eight Australian states/territories, with the largest proportion of articles appearing in one New South Wales paper (13%), and the lowest in Tasmania (6%).

Type

Over the period 2000 to 2011, 61% were hard news articles. Commentary articles accounted for 37% of the sample, comprising mostly columns (14% of total) and information/reviews (14%), followed by letters (6%) and editorials (3%). The proportion of hard news and commentary articles were relatively stable over time, while the proportion of ‘other’ articles increased over the 12-year period (IRR = 1.12, 95% CI: 1.04–1.20, $P = 0.002$).

Theme

Overall, the most common theme categories were promotion (21%), drink-driving (16%), restrictions/policy (16%) and alcohol consumption issues (13%) (Table 2). Themes that significantly declined were promotion (from 28% in 2002 to 14% in 2008; IRR = 0.96, 95% CI: 0.93–0.99, $P = 0.003$), business-related issues (from 10% in 2003 to 4% in 2009; IRR = 0.95, 95% CI: 0.92–0.99, $P = 0.013$) and ‘other’ (IRR = 0.74, 95% CI: 0.63–0.88, $P < 0.000$). Themes that became more dominant over time included restrictions/policy (from 8% in 2003 to 26% in 2008; IRR = 1.06, 95% CI: 1.01–1.11, $P = 0.015$) and responsible beverage services (from 4% in 2001 to 12% in 2009; IRR = 1.05, 95% CI: 1.01–1.08, $P = 0.007$) (Fig. 3). In the most recent years (2008–2011), the themes that had significantly changing proportions over the study period appeared to change direction. However this

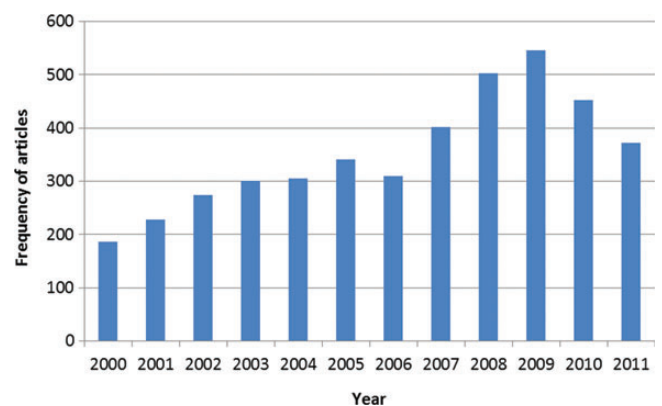


Fig. 2. The frequency of eligible newspaper articles by year.

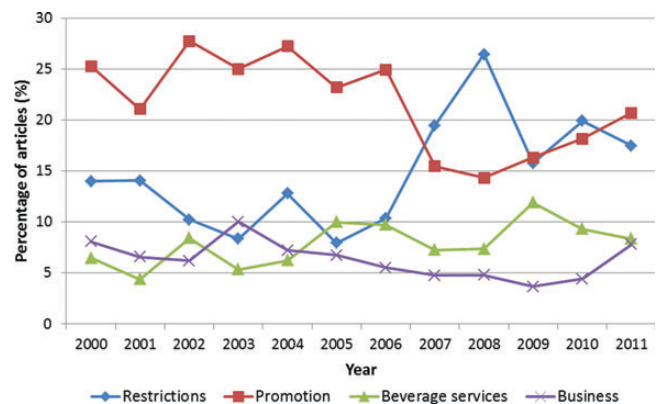


Fig. 3. Themes that changed significantly over time (2000–2011).

change was only statistically significant for the theme promotion, with these increasing from 14% (2008) to 21% (2011) (IRR = 1.13, 95% CI: 1.02–1.25, $P = 0.019$).

Topic slant

Around half of the articles (53%) were coded as socially disapproving of alcohol use, while 40% approved alcohol use. Mixed and neutral topic slants accounted for only 6 and 1% of the sample respectively, and these proportions did not vary over

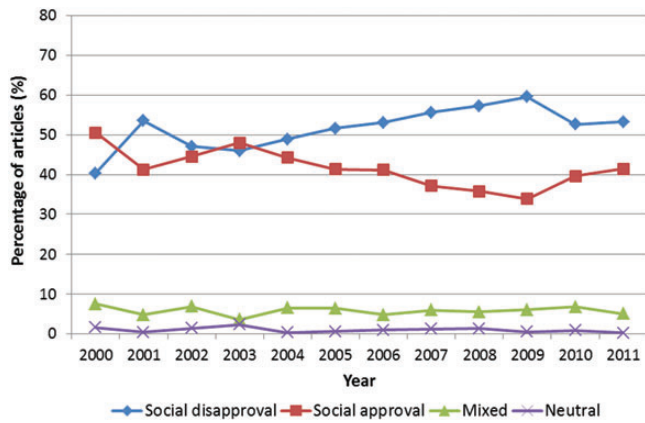


Fig. 4. Percentage of newspaper articles by topic slant within each year ($n = 4217$).

time. The proportion of articles expressing disapproval of alcohol use increased over time (from 40% in 2000 to 60% in 2009; IRR = 1.02, 95% CI: 1.01–1.03, $P = 0.003$) while approval of alcohol use decreased from 51% in 2000 to 34% in 2009 (IRR = 0.98, 95% CI: 0.96–0.99, $P = 0.002$) (Fig. 4). The apparent drop in the proportion of disapproving articles and increase in approving articles between 2009 and 2011 was not significant. The topic slant for the majority of hard news articles was disapproving of alcohol use (71%) whereas most commentary articles reported on events that suggested approval of alcohol (72%).

Opinion slant

Almost two-thirds (62%) of commentary articles expressed approval of alcohol use, 27% disapproved of alcohol, 7% had a mixed opinion and 4% were neutral. Over time, the proportion of commentary articles approving alcohol use decreased from 75% in 2000 to 45% in 2009 (IRR = 0.96, 95% CI: 0.94–0.98, $P = 0.002$), while the proportion that disapproved alcohol use increased from 17% in 2000 to 38% in 2009 (IRR = 1.08, 95% CI: 1.05–1.11, $P < 0.001$) (Fig. 5). Mixed opinions about alcohol use also increased over time from 1% in 2005 to 14% in 2008 (IRR = 1.13, 95% CI: 1.04–1.23, $P = 0.006$). Although trends in the proportion of articles expressing social approval and disapproval of alcohol appear to change after 2009, these changes were not statistically significant.

Topic slant by theme

Negative or social disapproval of alcohol use were most common for the themes: trauma (88%), prevention (86%) and drink-driving (85%). Social approval of alcohol was most frequent in articles focused on promotion (93%) and business-related issues (71%). Mixed topics were most frequent in articles reporting alcohol restrictions/policy and beverage services, with 12% of these articles including both positive and negative topics about alcohol use.

Opinion slant by theme

Similar to topic slant, the majority of articles relating to trauma (83%), prevention (81%) and drink-driving (75%) contained opinions that disapproved of alcohol use. The vast proportion of promotion articles (97%) and business-related issues (86%) expressed approving opinions and 23% of restrictions/policy

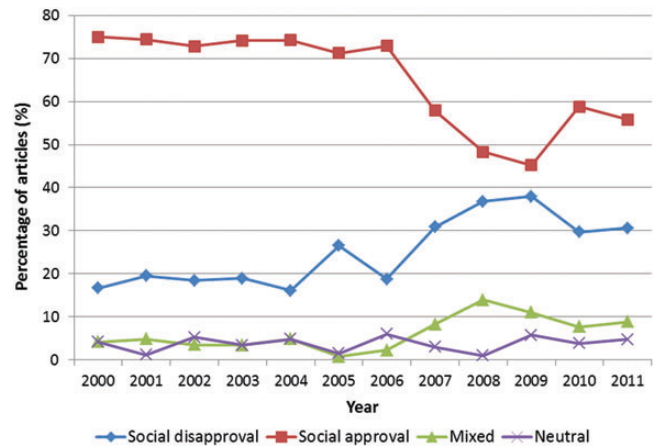


Fig. 5. Percentage of newspaper articles by opinion slant within each year ($n = 1644$).

and 21% of health and information articles reflected mixed opinions.

Article prominence by theme

Of the total news articles, 17% appeared in the early general news section, and this proportion did not vary over time. However, the proportion of articles published in the first four pages of the newspaper varied by theme category. For example, 28% of drink-driving articles and 24% of trauma articles appeared in the early general news sections, whereas promotion (3%) and business articles (8%) were less prominent (Table 2).

Sources

Seventy-four per cent of articles cited at least one source, with 22% of these citing at least one alcohol industry representative, 22% a law enforcement source, 18% a politician, 14% a researcher and 14% included a health source. Of articles citing a source, the majority (58%) cited only one source type with another 28% citing two source types. Appearances decreased significantly over time for alcohol industry spokespeople (from 31% in 2000 to 19% in 2007; IRR = 0.98, 95% CI: 0.96–1.00, $P = 0.023$), victims/accused (from 7% in 2000 to 2% in 2011; IRR = 0.94, 95% CI: 0.88–0.99, $P = 0.033$) and sources coded as 'other' (from 10% in 2003 to 5% in 2010; IRR = 0.96, 95% CI: 0.93–1.00, $P = 0.037$). In contrast, politicians (from 11% in 2002 to 27% in 2008; IRR = 1.05, 95% CI: 1.01–1.08, $P = 0.010$), health professionals (from 10% in 2000 to 20% in 2008; IRR = 1.04, 95% CI: 1.00–1.09, $P = 0.048$) and researchers (from 11% in 2003 to 17% in 2007; IRR = 1.03, 95% CI: 1.00–1.05, $P = 0.038$) became more common within the newspaper coverage.

DISCUSSION

The number of alcohol-related stories in Australian newspapers more than doubled between 2000 and 2011 suggesting that news stories surrounding alcohol consumption became an increasingly prominent issue. Promotional stories about alcohol were the single most common type of article in the early to mid-2000s, with over a fifth of articles published during this

period focusing on this theme. However, in the second half of the decade, articles focusing on a restrictions theme increased substantially and by the end of the study period, the proportion of promotion and restriction articles were similar. Another key finding was a shift in the type of spokesperson highlighted in articles—away from industry representatives and towards greater representation of health advocates and politicians.

Extrapolating from our findings, we estimate that during the 12-year study period, the 10 newspapers published around 21,000 alcohol-related articles equating to 175 articles per newspaper per year. Between 2000 and 2011, readers of our newspapers could be exposed to an alcohol-related article about every second day.

Both alcohol control advocates and the alcohol industry vie for the opportunity to frame the presentation of alcohol-related issues and policies in the media (Fogarty and Chapman, 2013). Our findings may demonstrate the success of the different organizations in getting their framing of alcohol-related issues into Australian newspapers. We found that the proportion of more negative topic slant and opinion articles increased in the second half of the 2000s. While an examination of how the news media are influenced by different organizations is beyond the scope of this study, we note that this increase coincides with the emergence of a more organized approach to alcohol control advocacy in Australia including the development of the Alcohol Policy Coalition and the National Alliance for Action on Alcohol in 2008 and 2009, respectively. These two groups have made media advocacy for alcohol control policies, especially alcohol advertising, a top priority (Fogarty and Chapman, 2013).

We found that almost one in six alcohol-related stories appeared in the first four pages of the news section. This is higher than figures reported in Australian studies on sun protection (Scully *et al.*, 2008) and tobacco newspaper coverage (Wakefield *et al.*, 2011). The positioning of alcohol-related stories in the early general news section of papers could reflect the relationship between drink-driving and road accidents, political agenda-building, and heightened interest in alcohol consumption or control stories in Australia in recent times. For example, discussions surrounding drink-driving, alcohol-related violence, alcohol excise, venue trading hours and mass media preventative campaigns featured strongly in the first few pages of the newspapers. Others have also found that drink-driving and trauma articles were the themes most commonly presented in the early news section of papers (Myhre *et al.*, 2002).

Articles about alcohol restrictions and policy became more common over time. The peak in restriction-themed stories may be attributed to discussion regarding the introduction and effectiveness of a tax increase on ready-to-drink spirits in 2008. Newspaper coverage of responsible beverage services also received greater attention over time, reflecting liquor licensing issues such as licence enforcement and trading hours becoming more newsworthy.

The finding that the majority of commentary pieces socially approved alcohol use suggests editors' tendency to present alcohol in a favourable way in opinion pieces. Interestingly, almost half of the articles covering health and information about alcohol had a positive opinion slant with many presenting research findings that reported beneficial effects of wine consumption on people's health, and ways to overcome hangovers.

The selection of sources or spokesperson within newspaper articles provides an insight into journalist's framing of a story and is considered a good reflection of broader cultural assumptions (Nicholls, 2011). Although alcohol industry sources appeared most frequently overall, their appearance decreased over the study period, with politicians, researchers and health professionals increasing. This change suggests that alcohol control advocates are beginning to establish a presence within the print media.

We examined alcohol-related stories in one media outlet—newspapers. However, newspapers can be considered a proxy measure for all media types as daily television and radio agendas are heavily influenced by the lead morning newspaper stories (Chapman, 2004). Furthermore, alcohol news coverage for newspapers and television news is highly correlated (Holder and Treno, 1997; Fogarty and Chapman, 2011).

Several limitations to this study need to be mentioned. We included only daily newspapers from each Australian state/territories capital city in our sample and did not examine regional newspapers. As ~70% of Australia's population live in capital cities, this approach ensured that we analysed newspapers most Australians living in each state/territory would potentially be exposed to. However, inclusion of regional newspapers would provide comparisons in newspaper coverage between geographical locations. While a combination of three search strings was used with the purpose to identify the vast majority of alcohol-related newspaper articles, in post-coding it became apparent that we failed to capture some relevant articles as they did not contain the word alcohol (search string 1 and 2) or booze (search string 3). The vast majority of these articles were wine columns reporting on wine releases and tastings; therefore, the proportion of promotional articles is likely to be underreported in this sample. We looked only at articles in hard copy newspaper publications and did not examine online articles. We did not examine how the issue of alcohol was reported within an entire newspaper edition. We suspect that there would be inconsistencies in the reporting of alcohol-related issues across different sections of the newspaper in one edition. Future research could explore this and examine how such inconsistencies are perceived by the public.

Despite these limitations, our study has a number of strengths. It is the first large-scale examination of alcohol stories in Australian newspapers, covering over a decade. We adopted a rigorous coding procedure and our high inter-rater reliability coefficients give us confidence in our categorizing of articles.

In conclusion, over the past 12 years Australia's daily metropolitan newspapers became more disapproving in their presentation of alcohol-related stories with public figures advocating for alcohol control objectives appearing more frequently within the coverage. The changing landscape in alcohol-related news coverage may both influence and reflect societal norms regarding alcohol consumption and behaviour. However despite these changes, the highest proportion of alcohol-related articles in newspapers continued to be promotional articles of which the vast majority were positive towards alcohol use. Advocacy efforts should be directed towards engaging with the media to increase the proportion of disapproving commentary opinion pieces from editors and commentators (which are widely read and can influence discussion in radio and TV news) to ensure that the alcohol industry does not have the dominant voice within the news coverage. Given the descriptive nature of this study, future research should focus on assessing the influence of

alcohol-related news coverage on Australian adolescent and adult drinking attitudes and behaviours.

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