Tobacco in the news: an analysis of newspaper coverage of tobacco issues in Australia, 2001

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Objective: To assess the extent and nature of newspaper coverage of tobacco related issues in Australia in 2001.

Design: Content analysis of newspaper articles.

Subjects: All articles (n=1188) at least seven lines long and containing at least one paragraph focused on tobacco in all major Australian national and State capital city newspapers (n=12) in 2001.

Main outcome measures: Number of articles, month of publication, State in which newspaper published, prominence of article, type of article, article theme, and slant of article relative to tobacco control objectives.

Results: The number of tobacco articles varied considerably in different months over the course of the year, from a low of 51 in December to a peak of 180 in May. The most frequent theme was secondhand smoke issues (30% of articles), with the second most dominant theme related to education, prevention, and cessation programmes and services (20%). Events that were covered were predominantly positive for tobacco control: 62% of articles were related to events that were positive, compared with 21% that were negative for tobacco control objectives. Excluding news articles, the opinions expressed by the authors of articles were also mainly positive (61%) rather than negative (22%) for tobacco control objectives. The amount of coverage of and population exposure to tobacco focused articles showed considerable variation across different Australian States, with Victoria having the highest frequency and rate of articles and the most media impressions per capita throughout 2001. Conclusions: Coverage of events and opinions related to tobacco in Australian newspapers in 2001 was generally positive for tobacco control objectives. Given that over 2 million individuals (out of a population of 19 million) were potentially exposed to tobacco related newspaper articles per day in Australia, this represents good news for tobacco control advocates. The variation in news coverage in different States and at different times in the year, however, illustrates how a combination of local events and advocacy efforts may at times combine to make tobacco more newsworthy. Understanding which tobacco issues are most likely to be covered and the nature of the coverage about them provides valuable feedback for tobacco control advocates and is a useful gauge of actual events as well as the tobacco related agendas promoted by the press.

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he "agenda setting" function of the news media is well recognised. Through the selection of particular news stories, certain issues are given more salience, whereas others are deemed less newsworthy. Despite the hallowed journalistic tradition of objective reporting, news stories are best conceptualised as highly crafted artefacts that shape events into a readily digestible format. By framing issues in specific ways, the media can play an important role in influencing not only what issues are presented to mass audiences, but also how these are perceived, and what importance the public should attach to them.²⁻⁴ The process of framing involves the presentation and packaging of news stories in ways that highlight some aspects of an issue while ignoring or downplaying others. Thus, frames can not only define what problems are seen as being important, but also what their causes are, and what their solutions might be.4 News is always a "social construction", rather than a direct transfer of facts to the public.5 As Gamson and Modigliani⁶ describe it: "Media discourse can be conceived of as a set of interpretive packages that give meaning to an issue. At its core is a central organising idea or frame suggesting what is at issue." Negative media coverage of policies, institutions, and individuals can profoundly shape public views, voting patterns, and the political strategies of competing parties.

The influence of the news media on public opinion and public policy has been amply demonstrated in a wide range of studies.³ ⁶⁻⁸ For instance, Fan's research⁸ as to the way that the drugs issue is portrayed in American newspapers demonstrated that changes in the public's perception of drugs as a major problem over time could be accounted for by the fram-

ing of drugs as a "crises" in the press. Further evidence for the role of media influence on public opinion and public policy derives from studies of media advocacy efforts. Media advocacy entails the deliberate use of media by interest groups to advance specific causes and concerns. From a public health perspective, media advocacy has proven to be a valuable method in reframing issues in ways that promote specific changes in attitudes, behaviour, and public policy among both the community at large and in specific key groups such as political decision makers.^{5 9-11} For example, Holder and Treno° reported that concerted media advocacy efforts served to increase news coverage of alcohol issues, heighten community awareness of drunk driving enforcement and increase the perceived risk of arrest for driving under the influence.

Recent research has clearly identified the importance of media advocacy in advancing tobacco control objectives. ¹²⁻¹⁴ Although research has demonstrated the efficacy of large scale media campaigns to reduce the prevalence of smoking, ¹⁵⁻¹⁶ such initiatives are often expensive and therefore are typically short lived. The advantage of media advocacy as a strategy for tobacco control is that news coverage of tobacco issues is not only free, but also continuous. Thus, the public's exposure to news stories is relatively inexpensive and potentially outweighs their exposure to mass media campaigns, however well crafted they might be. ¹⁷ It is surprising, therefore, that there has been little in the way of systematic surveillance, analysis,

Abbreviations: MAV, media advocacy variable

Table 1	Newspaper	and Stat	e variabl	es
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			Circulation (000s)*		
Newspaper	State	State population (000s)†	Weekday	Saturday	Sunday
The Australian/Weekend Australian	National	18970	132	315	_
Australian Financial Review	National	18970	91	80	_
Daily Telegraph/ Sunday Telegraph	New South Wales	6372	432	348	719
Sydney Morning Herald/Sun Herald	New South Wales	6372	233	399	599
The Age/Sunday Age	Victoria	4645	196	341	197
Herald Sun/Sunday Herald Sun	Victoria	4645	545	511	525
The Courier Mail/Sunday Mail	Queensland	3655	221	343	590
West Australian/Sunday Times	Western Australia	1851	207	381	349
Adelaide Advertiser/ Sunday Mail	South Australia	1467	219	219	346
Mercury/Sunday Tasmanian	Tasmania	456	50	64	58
Canberra Times/Sunday Canberra Times	Australian Capital Territory	312	39	<i>7</i> 1	39
Northern Territory News/Sunday Territorian	Northern Territory	211	23	32	27

^{*}Circulation figures from Margaret Gee's Australian Media Guide 69th Edition (2002). †State and national population figures from Australian Bureau of Statistics, 2001 Census.

or evaluation of news coverage and its potential impacts on smoking attitudes, beliefs, behaviours, and policy. One important task then is to bring "the background into the foreground"; that is, to examine the way that tobacco issues are covered in the news and how such coverage may affect public opinion and public policy. In the context of Australia's State and national efforts to reduce smoking prevalence, a consideration of the extent and valence of news coverage on tobacco issues may be reasonably construed as an important factor in assessing the wider role of media in advancing tobacco control objectives.

The groundwork for such analyses has been laid through an increasing number of studies that have examined the coverage of tobacco issues in the news.19-29 Various analyses of newspaper content have revealed that coverage of issues that are relevant to tobacco control do not necessarily reflect the aspects of the issue that advocates deem to be most important.19-21 Lima and Siegel's20 analysis of newspaper coverage of the United States national policy debate 1997-1998, for instance, illustrated that the problem of tobacco control as portrayed in the Washington Post was dominated by frames that focused on the problem of youth smoking at the expense of frames that underscored the harmful nature of tobacco products. Given the evidence that smokers do not fully appreciate the risks of smoking, 30-31 the lack of news coverage on the manifold harms of tobacco use is an issue of concern, and a potential target for media advocacy efforts.

Other research has examined news coverage of particular tobacco control issues and events, such as California's smoke free bar law,²² passive smoking,²³ and several legal cases in Australia.^{24 32} These studies illustrate the press' portrayal of tobacco issues as controversial, with frames positive for tobacco control vying for domination with frames that are used to undermine support for tobacco control initiatives. However, in Australia at least, newspaper coverage of tobacco issues has been shown to be predominantly positive for tobacco control,^{24 29} with the tobacco industry consistently framed as a corporate pariah with few if any redeeming features.²⁵

Accumulating evidence suggests that media advocacy efforts can be effective in increasing news coverage of tobacco issues, 25-26 and that effective advocacy initiatives can serve to reframe issues in ways that are positive for tobacco control. 13 Moreover, there is some evidence that coverage of tobacco issues in the news can actually reduce cigarette sales 27 as well as increase smoking cessation rates, 28 although the aim of many advocacy efforts is directed at shaping public policy rather than at directly changing individual behaviour.

Where many previous studies have focused on press coverage of specific issues or have sampled particular newspapers, the aim of the present study was to provide a systematic over-

view of all tobacco news coverage in all major metropolitan Australian newspapers over the course of a calendar year (2001). Such systematic analysis of news coverage allows the enumeration of the number of articles on different tobacco issues and the way that those issues are "slanted" relative to tobacco control objectives. These variables represent important indices of tobacco control advocates' varying success in making tobacco control newsworthy, and can be instructive to future advocacy efforts. In addition, by providing an analysis of newspaper coverage of tobacco issues in different Australian States, comparisons can be drawn on the nature and frequency of news articles in different regions and thus the efficacy of local advocacy efforts can be evaluated.

In this study we focused exclusively on the coverage of tobacco issues in newspapers. The coverage of issues in newspapers is typically highly correlated with the presentation of the same issues in other media such as radio and television, and newspapers are regarded as important for setting the agenda, as are other media such as radio and television. Indeed, publication in morning newspapers sets much of the news agenda for other news media during the remainder of the day. This study is part of an ongoing monitoring programme of news coverage of tobacco issues in Australia designed to inform advocacy efforts and to advance tobacco control initiatives.

METHODS

Sample

Our sample comprised all national and State capital daily and Sunday newspapers published in Australia in 2001. This included two national and 10 daily and Sunday newspapers (see table 1). Articles were obtained from a media monitoring company that provided all clippings of news coverage featuring the words "tobacco", "smoking", or "quit". For an article to be included in the study it had to be at least seven lines long and contain at least one full paragraph focused on tobacco, plus at least one other mention of tobacco. This search strategy yielded 1188 articles over the course of 2001. These articles are likely to represent most of the tobacco related news coverage found in the national and major capital city newspapers in Australia during this period.

Coding variables

A coding system based on the framework developed by Clegg Smith and colleagues³⁴ was employed in this study. Table 2 indicates that there were three key types of variable coded: prominence, content, and slant. Prominence was assessed depending on whether the article appeared in the first four pages of the newspaper and whether it contained an image (usually a photograph). Content was assessed in terms of 13

Tobacco in the news

Variable	Definition
Date of publication	Day, month, and year of the publication of the article
Newspaper name	Name of the newspaper from which the article was obtained
Early general news	Coded "yes" if the article is published in the first four pages of the newspaper
Image	Coded "yes" if any kind of cartoon, photo, picture, drawing, graph, or table accompanies the news story
Type of article	(1) News (factual accounts of issues and events); (2) editorial (column stating opinion of newspaper on various issues); (3) letter (usually the opinion of a member of the public); (4) column or opinion editorial (comment with a strong opinion by an individual); (5 image without story (a photo or image that often has a one line descriptive caption); (6) information (about specific programmes, includes health columns); (7) question & answer (questions from the public to people who give advice); (8) other (any news article that does not fit above categories)
Themes	Articles coded for one dominant theme out of 13 options: (1) health effects of smoking; (2) second hand smoke issues and restrictions; (3) tobacco consumption; (4) tobacco advertising, promotion, and sponsorship; (5) economic issues; (6) farming and trade; (7) product issues; (8) addiction; (9) youth access issues; (10) education, prevention, and cessation programmes, services and campaigns; (11) environmental damage (such as fires or litter); (12) tobacco industry (including finance reports); (13) other
Event slant	The newsworthy event or item relevant to tobacco issues that is being covered in the article. Coded as either: (1) positive for tobacco control; (2) negative for tobacco control; (3) mixed impact on tobacco control; or (4) neutral for tobacco control
Opinion slant	The dominant view or opinion being put forth by the author was coded as either: (1) positive for tobacco control; (2) negative for tobacco control; (3) mixed impact on tobacco control; or (4) neutral for tobacco control

tobacco related themes. Slant variables included: (a) event slant, whether the actual event being reported on was judged to be positive, negative, mixed, or neutral for tobacco control objectives; and (b) opinion slant, whether any dominant viewpoint was put forth by the author of the article, and the extent to which this was positive, negative, mixed, or neutral for tobacco control objectives. In combination, these coding variables enabled us to establish how often tobacco related articles appeared in the news, how prominent they were, the type of articles in which they appeared, the main content areas or themes of the news items, and the "slant" of the news items relative to tobacco control objectives.

In addition, we calculated the frequency and rate of articles, as well as the number of media impressions²² and media impressions per capita, in order to facilitate comparison between different States in the coverage of tobacco issues. The rate variable was based on the number of articles published in the State divided by the number of newspapers in each State. This variable provides a comparative index of the amount of tobacco related news coverage in each State controlling for the number of newspapers published. Following the work of Stillman and colleagues,35 in order to assess the number of individuals who were potentially exposed to news articles about tobacco in different States, and thus the total number of "media impressions", we calculated the number of news articles multiplied by the circulation of the newspaper multiplied by 2.2 (to capture estimated readership). Per capita media impressions were then calculated by dividing this figure by the State population (see table 1 for details of newspaper and State variables). This figure provides us with an indication of how frequently, on average, individuals in different States would have been potentially exposed to tobacco related articles in the press. Finally, the prominence and slant of news articles were factored in to construct a media advocacy variable (MAV), which was adapted from the work of Stillman et al. 35 MAV portrays the amount and prominence of coverage of tobacco issues that are positive for tobacco control adjusted by the population of each State. MAV is calculated as follows:

coverage (1 = yes) × framing (event slant (opinion slant): -2 negative for tobacco control, 1 = mixed or neutral for tobacco control, 2 = positive for tobacco control) × early general news (2 = yes, 1 = no) × image (2 = yes, 1 = no) × circulation × 2.2/State population.

Two versions of MAV were used in this study, one using event slant (MAVevent) and one using opinion slant (MAVopinion). Circulation figures were multiplied by 2.2 in order to calculate the number of media impressions and the MAV variables so as to provide a measure of the estimated number of readers of each newspaper.³⁵ Data on readership of

Australian newspapers indicate that this calculation underestimates likely total readership and so provides a conservative estimate of the number of individuals who had the opportunity to see tobacco related news stories.³⁶

MAVevent essentially provides an indication of the reach of tobacco articles adjusted by their prominence and how positive the events on which they are focused are for tobacco control. It thus provides a useful proxy measure of the newsworthiness of events and activities occurring in relation to tobacco control. MAVopinion also gives an indication of the reach and prominence of tobacco stories but is adjusted for the opinion expressed by the author relative to tobacco control. MAVopinion thus provides a better idea of how the public, journalists, and editors are choosing to cover and respond to tobacco issues in the news.

Coding procedures and analysis

Coding procedures were developed and refined by the authors over an extended period. Articles for 2001 were coded by one of two authors. In addition, 10 articles per month were randomly chosen and coded by both coders to assess intercoder reliability using Cohen's κ index. The median value of κ across the coded variables was 0.84 (range 0.73 to 0.97). Thus, an acceptable level of agreement between coders was established. Additional significance testing was not carried out on the data because the newspaper articles collated in this study represent a census rather than a sample of the population of articles on tobacco issues.

RESULTS

Volume and characteristics of articles

Over the course of 2001, 1188 tobacco focused articles were published in Australian national and capital city newspapers. This represents an average of 99 articles per month, or just over three articles a day. As can be seen in fig 1, however, there was considerable variation in the volume of coverage each month, from a peak of 180 in May to a low of 51 in December. There was also substantial variation in the dominant theme of the articles. Secondhand smoke issues and articles covering education, prevention, and cessation programmes together comprised half of all newspaper coverage of tobacco issues. Coverage of secondhand smoke issues in particular showed significant monthly variation, with 98 articles in May, but less than half this number in any other month. News articles were the most frequent type of article, comprising 73% of all tobacco related coverage (n=862). Newspaper coverage of tobacco issues also included 153 letters and 104 columns, representing 13% and 9% of total coverage, respectively. Editorials, on the other hand, occurred infrequently,

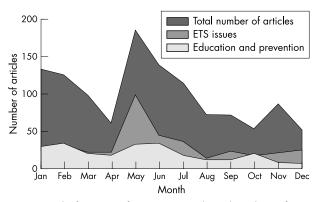


Figure 1 The frequency of newspaper articles with a tobacco focus in Australian newspapers in 2001. Total number of articles, articles with the dominant theme of environmental tobacco smoke (ETS), and articles with the dominant theme of education and prevention cessation programmes, services, and campaigns.

representing just 2% of all published articles. Although news articles dominated tobacco coverage, some issues attracted more letters, columns, and editorials than did others. For instance, a quarter of all articles on economic issues were letters, and over half of all editorials were related to secondhand smoke issues. As can be seen in table 3, 17% of articles were located in the early general news section of the paper and 32% of articles contained an image of some kind. The prominence of articles as measured by these two variables also showed some variation depending on the theme of the article. Over 30% of articles on economic issues, for instance, were found in the first four pages of the newspaper.

Slant

In this study, the slant of articles was coded in order to evaluate the nature of the event being covered (event slant) and the opinion being expressed by the author (opinion slant) relative to tobacco control objectives. The majority of articles (62%), as can be seen in table 4, reported on events that were positive for tobacco control, such as new legislation, anti-smoking campaigns, and quitline services. Secondhand smoke issues, health effects, youth access, and economics were themes that tended to represent coverage of events that were positive for tobacco control. However, around a fifth (21%) of articles represented coverage of events that were negative for tobacco control objectives, and were more often contained in articles with themes of tobacco industry, tobacco advertising, and tobacco consumption. The remaining articles were coded as

1188

having either a mixed (12%) or neutral (6%) impact on tobacco control objectives. In order to obtain a better indication of the opinion slant of articles relating to tobacco control, news articles were excluded from the results for opinion slant displayed in table 4, leaving 326 articles for analysis. From these data we can see that most of the opinions voiced in Australian newspapers in 2001 were positive for tobacco control (61%), with coverage of themes relating to addiction, youth access, and advertising and promotion being overwhelmingly so. Around a fifth of articles, however, reflected opinions that were negative for tobacco control. Product and economic issues, in particular, were more likely to attract negative opinions—although there were a small number of overall articles in these categories.

In table 5 we have displayed the number of articles coded by event slant and opinion slant, again excluding news articles. This cross tabulation provides a useful indication of how events that may be positive, negative, mixed, or neutral for tobacco control objectives are actually portrayed by their authors in the press. As can be seen, 59% of articles relating to events that are positive for tobacco control also receive opinions that are positive for tobacco control, whereas 27% of articles relating to positive events are framed negatively for tobacco control. By contrast, only 14% of news articles relating to events that are negative for tobacco control also reflect opinions that are negative for tobacco control, whereas 78% of news articles relating to events that are negative for tobacco control are given a positive slant by authors. In general then, events-whether negative, neutral, or positive-tend to be covered in ways that are positive for tobacco control objectives, although there appears to be considerable room for a wide variety of different opinions.

Rate, media impressions, and MAV variables

Coverage of tobacco issues varied substantially in different States in Australia over the course of the year, as illustrated in table 6. The greatest number of articles were published in Victorian newspapers (391), followed by New South Wales (219), and South Australia (115), with the fewest number of tobacco related articles in the Northern Territory (8). Adjusting for the fact that articles were obtained from two newspapers in Victoria and New South Wales, Victoria still had the highest rate of tobacco related articles, followed by South Australia and New South Wales. An idea of the number of individuals who had the opportunity to read tobacco related articles is provided by the total number of media impressions and per capita media impressions. As illustrated in table 6, over the course of 2001 there was a total of over 355 million tobacco related media impressions in Victoria, or 77 media

		Article type*		Early general news				
Article theme	Total	News	Column	Editorial	Letter	Other	Yes	
Secondhand smoke issues	351 (30%)	228 (65%)	35 (10%)	12 (3%)	59 (17%)	17 (5%)	69 (20%)	
Education and prevention	237 (20%)	177 (75%)	19 (8%)	4 (2%)	21 (9%)	16 (7%)	39 (17%)	
Health effects '	116 (10%)	98 (85%)	3 (3%)	0 (0%)	13 (11%)	2 (2%)	16 (14%)	
Tobacco industry	109 (9%)	91 (84%)	14 (13%)	2 (2%)	1 (1%)	1 (1%)	13 (12%)	
Advertising and promotion	89 (8%)	65 (73%)	6 (7%)	0 (0%)	18 (20%)	0 (0%)	15 (17%)	
Consumption	81 (7%)	54 (67%)	9 (11%)	1 (1%)	13 (16%)	4 (5%)	14 (17%)	
Economic issues	72 (6%)	46 (64%)	5 (7%)	1 (1%)	18 (25%)	2 (3%)	22 (31%)	
Product issues	62 (5%)	57 (92%)	2 (3%)	0 (0%)	2 (3%)	1 (2%)	14 (23%)	
Addiction	27 (2 %) 18 (67%)	6 (22 %)	0 (0%)	1 (4%)	2 (7%)	0 (0%)	
Youth access	20 (2%)	16 (80%)	0 (0%)	0 (0%)	4 (20%)	0 (0%)	3 (15%)	
Other	15 (1%)	5 (33%)	5 (33%)	0 (0%)	1 (7%)	4 (27%)	0 (0%)	
Environmental damage	8 (1%)	6 (75%)	0 (0%)	0 (0%)	2 (25%)	0 (0%)	0 (0%)	
Farming	1 (0%)	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	

^{*}Note: due to the small number of articles coded as question and answer, information, or image (no story) articles in these categories have been included under "other".

104 (9%)

862 (73%)

20 (2%)

153 (13%)

49 (4%)

205 (17%)

Total

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Table 4 The number (%) of newspaper articles by article theme, event slant, and opinion slant

	Event slant (ı	Event slant (n=1188)				Opinion slant (n=326)			
Article theme	Negative	Mixed	Neutral	Positive	Negative	Mixed	Neutral	Positive	
Secondhand smoke issues	58 (17%)	14 (4%)	9 (3%)	270 (77%)	30 (24%)	9 (7%)	8 (7%)	76 (62%)	
Education and prevention	41 (17%)	38 (16%)	3 (1%)	155 (65%)	8 (13%)	6 (10%)	7 (12%)	39 (65%)	
Health effects	14 (12%)	13 (11%)	2 (2%)	87 (75%)	4 (22%)	2 (11%)	3 (17%)	9 (50%)	
Tobacco industry	43 (39%)	8 (7%)	24 (22%)	34 (31%)	0 (0%)	2 (11%)	5 (28%)	11 (61%)	
Advertising and promotion	39 (44%)	9 (10%)	1 (1%)	40 (45%)	1 (4%)	0 (0%)	2 (8%)	21 (88%)	
Consumption	20 (25%)	27 (33%)	8 (10%)	26 (32%)	9 (33%)	0 (0 %)	3 (11%)	15 (56%)	
Economic issues	11 (15%)	4 (6%)	5 (7%)	52 (72%)	11 (42%)	1 (4%)	3 (12%)	11 (42%)	
Product issues	13 (21%)	16 (26%)	0 (0%)	33 (53%)	4 (80%)	1 (20%)	0 (0%)	0 (0%)	
Addiction	3 (11%)	3 (11%)	3 (11%)	18 (67%)	1 (11%)	1 (11%)	0 (0%)	7 (78%)	
Youth Access	1 (5%)	3 (15%)	0 (0%)	16 (80%)	0 (0%)	0 (0%)	0 (0%)	4 (100%)	
Other	6 (40%)	3 (20%)	4 (27%)	2 (13%)	3 (30%)	0 (0%)	3 (30%)	4 (40%)	
Unintended damage	1 (13%)	1 (13%)	6 (75%)	0 (0%)	0 (0%)	0 (0%)	1 (50%)	1 (50%)	
Farming	0 (0%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Total	250 (21%)	139 (12%)	66 (6%)	733 (62%)	71 (22%)	22 (7%)	35 (11%)	198 (61%)	

Note: the total number of articles displayed for opinion slant is less than for event slant because we have excluded all hard news articles (which are invariably coded for opinion slant as neutral for tobacco control).

Table 5 The number (%) of newspaper articles by event slant and opinion slant

Event	Opinion sl				
slant	Negative	Mixed	Neutral	Positive	Total
Negative	12 (14%)	3 (4%)	4 (5%)	66 (78%)	85 (100%)
Mixed	0 (0%)	5 (24%)	4 (20%)	12 (57%)	21 (100%)
Neutral	7 (27%)	0 (0%)	14 (54%)	5 (20%)	26 (100%)
Positive	52 (27%)	14 (7%)	13 (7%)	115 (59%)	194 (100%)

impressions per capita. On average, therefore, an individual in Victoria would have been exposed 77 times to a newspaper article related to tobacco issues, compared with 40 times in South Australia, and 33 times in New South Wales. The potential exposure to tobacco related newspaper articles was lowest in the Northern Territory (2), followed by Queensland (16), and Tasmania (20). It is important to note here, however, that these figures for average per capita media impressions will mask considerable individual variation in newspaper readership (ie some individuals will potentially be exposed to tobacco related stories far more frequently than will others). By factoring in the prominence and slant of the newspaper articles in the MAV variables, an idea can be obtained of the potential exposure to newspaper articles adjusted for their prominence and how positive they are for tobacco control objectives. As depicted in table 6, the MAVevent and MAVopinion variables tell a consistent story: coverage of tobacco issues during 2001 was more frequent, prominent, and positive in Victoria, with roughly similar coverage in New South Wales, South Australia, Western Australia, and the Australian Capital Territory. A comparison of the MAVevent and MAVopinion reveals the extent to which coverage of events that are negative, neutral, mixed, or positive for tobacco control are actually framed in positive or negative ways in the news. A higher MAVopinion score than MAVevent score suggests that tobacco related events tend to be covered in more positive ways. As can be seen in table 6, the MAVopinion scores are higher than the MAVevent scores in Victoria, Queensland, and Tasmania, but lower in the other States.

DISCUSSION

The results of this content analysis provide a major and recent upgrading of the only study to have systematically examined newspaper coverage of tobacco issues in the Australian press over the course of a calender year.²⁹ The total volume of articles reflects an ongoing presence of tobacco issues in the news, with an average of over three articles per day in Australian national or capital city newspapers. This represents over two million individuals potentially exposed to tobacco related stories per day in Australia, out of a total population of 19 million (or just under 15 million aged 15 and over).

The fluctuation in coverage of tobacco issues was, however, substantial during this period. This suggests either that there were peaks and troughs in tobacco related activity, or that the newsworthiness of tobacco issues is subject to the tenets of the issue–attention cycle posited by Downs.³⁷ One particular fluctuation can clearly be attributed to an extraordinary event; the large number of articles in May reflected coverage of the Marlene Sharp legal case in Australia, in which a

Table 6 The frequency, rate, number of media impressions, and media advocacy impact of newspaper articles in each State/Territory, 2001

State*	Frequency	Rate	Total media impressions (000s)	Per capita media impressions	MAVevent†	MAVopinion†
Victoria	391 (33%)	195.5	355 781	76.6	118.5	121.4
New South Wales	219 (18%)	109.5	210 500	33.0	50.0	42.7
South Australia	115 (10%)	115	58 178	39.7	55.5	39.7
Western Australia	98 (8%)	98	56 093	30.3	59.3	45.1
Queensland	93 (8%)	93	60 029	16.4	17.4	30.3
Tasmania	81 (7%)	81	8 936	19.6	28.5	37.4
Australian Capital Territory	72 (6%)	72	6 924	22.2	39.6	39.2
Northern Territory	8 (1%)	8	434	2.1	4.4	2.9

^{*}Excluding national newspapers.

[†]Higher MAVevent and MAVopinion scores represent better outcomes for tobacco control. See the method for details on the calculation of the MAV variables.

non-smoking female bar worker with laryngeal cancer, putatively caused by exposure to secondhand smoke, was awarded close to half a million dollars in compensatory damage.²⁴ Newspaper coverage of this case also explained the sharp peak in articles relating to secondhand smoke issues during this month. Overall, 75 newspaper articles relating to the Marlene Sharp case appeared in Australian capital city and national newspapers in May (representing 41% of all articles in May),25 demonstrating the considerable power of a single event to generate news. Given that most of this coverage was positive for tobacco control, this event illustrated how preceding decades of media advocacy have the potential to "come home to roost" in the form of positive framings of events that are often not orchestrated nor controlled by tobacco control advocates. The relatively high volume of articles in January and February can also be related to specific tobacco related events: activity around helping people quit smoking in the New Year, concern over portrayals of smoking in films, proposed new regulations relating to the labelling of cigarette ingredients, tax increases, and smoke free venues. Explaining declines in the coverage of tobacco issues is more problematic, although the low frequency of articles in the last quarter of the year can be plausibly linked to the very restricted "news hole" that was created by the events of September 11, 2001.

As was the situation in the 1987–88 study,²⁹ secondhand smoke issues also dominated news coverage of tobacco in Australia throughout the year, with 30% of all articles dealing predominantly with this theme. This coverage reflects the media attention attracted by the Marlene Sharp case, as well as the development and passage of new legislation in several States relating to smoke free restaurants, bars, and workplaces.

Coverage of issues relating to education, prevention, and cessation programmes was also prominent in 2001, capturing a fifth of all tobacco related newspaper articles. Consistent media coverage of these programmes reflects the ongoing efforts of anti-smoking campaigns, including Australia's National Tobacco Campaign¹⁸ and various State level campaigns, as well as the activity of tobacco advocates around Australia in promoting quit smoking services and pharmacotherapies. The relative paucity of articles dealing with issues relating to health effects and addiction is consistent with similar research in the United States 20-21 and must be of some concern for tobacco control advocates. Much of the information pertaining to the addictive and health damaging characteristics of tobacco use may be perceived by journalists and editors as not "new news", and so may tend to feature less prominently in news coverage. However, these issues remain important motivations for smoking cessation on the part of the public, and for more stringent tobacco control efforts on the part of policy makers. Paid antismoking media campaigns offer key opportunities to select and frame "new news" about smoking in ways that make health issues appear "fresh" amid the background of more well known information about tobacco.

Most news coverage in Australia in 2001 was related to events that were positive for tobacco control. There were almost three times as many articles reporting on events that were positive compared to those that were negative for tobacco control objectives. Events that were featured in the press that were positive for tobacco control included the passing of new smoke free legislation, coverage of education, prevention and cessation programmes, including State and national antismoking campaigns, and the development and implementation of tobacco tax initiatives.

Press coverage of tobacco industry profits and increasing tobacco product placements in films were some examples of events that were negative for tobacco control, although categorising them thus invites important research questions about whether ostensibly "negative" news items may often be consumed by readers with predispositions against tobacco as being in fact "positive" (eg a story reporting record profit levels by a tobacco company is "bad news", yet may cause some

readers to consolidate negative views about tobacco companies being rapacious, unethical enterprises). Just under 20% of news coverage was also related to events that were neutral or mixed for tobacco control objectives, with a relatively large number of articles dealing with consumption and product issues in these categories. Coverage of consumption figures often highlighted improvements in smoking trends in one population subgroup but a worsening situation in another. The coverage of new tobacco products, such as some of the supposedly "reduced carcinogen" cigarettes being introduced in the United States, were typically coded as mixed because their impact on tobacco control objectives remains uncertain.

Excluding news stories, the opinions expressed by the authors of other tobacco related articles (columns, letters, editorials) displayed a similar proportion of positive to negative coverage as that found with coverage of events, with 61% of opinionated articles being coded as positive for tobacco control objectives and 22% being coded as negative. Themes related to economics, consumption, and secondhand smoke issues tended to generate the most polarised opinions because increases in tobacco tax, reflections on what it means to be a smoker, and new smoke free regulations attracted both positive comments, as well as criticism.

Letters to the editor are often the forum for the presentation of strong opinions and provide a useful measure of public attitudes regarding social issues.³⁸ In this sample, letters to the editor tended to reflect the general coverage of different tobacco issues in Australia, with almost 40% of letters dealing with secondhand smoke issues. Of all letters, however, 12% were related to economic themes, making up a quarter of all newspaper coverage of these issues, and often reflected consumer concern over price increases. In a recent United States study using the same thematic categories that were employed in this research, Siebel³⁸ also found a high proportion of letters (50%) on secondhand smoke issues, although economic issues barely featured in that study (less than 2% of letters).

Coverage of tobacco issues in Australia in 2001 showed considerable variation in different States and Territories. Victoria in particular stands out as the State with by far the most number of articles, highest rate of articles per paper, greatest number of total and per capita media impressions, and highest MAV scores. During the course of 2001, the average Victorian would have had the opportunity to read a tobacco related article about twice as often as someone in South Australia, New South Wales, or Western Australia and about four times as often as individuals in Queensland, Tasmania, or the Australian Capital Territory. An active programme of legislative tobacco reform in Victoria in 2001, which provoked considerable discussion and coverage in the news, provides one possible explanation for these dramatic differences. In short, greater news coverage may reflect more newsworthy events in Victoria compared with other States. Other potential explanations include more active media advocacy efforts in Victoria and more receptive newspaper editors for the Victorian papers.

DIRECTIONS FOR FURTHER RESEARCH

Descriptive analyses of newspaper coverage of tobacco issues provide one important component of an overall evaluation of media advocacy efforts. Other methods that can contribute to a more overarching evaluation framework include interviews with advocates and journalists, public opinion surveys, and the tracking of relevant policy changes. The role of the journalists' perspective is particularly under researched, especially given their role as the "gatekeepers" of news stories, and the process whereby events and issues are selected as newsworthy needs to be explored in more detail. Perhaps most importantly, future research needs to examine the putative links between the presentation of issues in the media, individual use of

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media, and the way that news articles are perceived by the public. Victorians on average, for example, may have been exposed to 77 newspaper articles on tobacco throughout 2001, but to what extent do these stories stand out from the clutter of competing articles and have an impact on the public's beliefs, attitudes, values, and norms regarding tobacco use? More specifically, given that salience is a joint product of texts and readers, how do the public or particular segments of the public interpret news stories on tobacco? Are there important differences depending on smoking status and other individual difference characteristics? As yet, the social and cognitive processes that underpin the impact of news coverage of particular issues on subsequent beliefs, values, norms, and behaviours have yet to be satisfactorily elucidated.41

However, as clearly documented in a voluminous body of research on advertising effects, the frequency of exposure is crucial.42 Maintaining a consistently high flow of tobacco related stories in the news should therefore be one important goal of advocacy efforts, especially given that this coverage is typically positive for tobacco control objectives. As Chapman and Lupton⁵ note, in this context it is better "to be looked over, rather than overlooked". Where the results of research, labouriously crafted in the form of peer reviewed publication, may reach a meagre audience in the hundreds (or at best thousands), a well placed press release might reach hundreds of thousands or millions. 13 43 Future research should aim to explore the complex reciprocal relations between tobacco control events, coverage in the news, and the impact of such coverage on policy change and smoking related beliefs, values, and behaviours.

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DISCLOSURE

Melanie Wakefield is a senior editor and Simon Chapman is the editor of Tobacco Control. Both authors were excluded from the editorreviewer correspondence and were not involved in the editorial decision making process for this manuscript.

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