

TABLE 2—Trends in the Prevalence of Smoking for Adults 20 years of age or greater, United States, 1965–1985

Year	Percent Smokers	Percent Decline/Year		
		from 1965	from 1976	from 1980
1965	40.4	—	—	—
1976	36.1	.39	—	—
1980	33.3	.47	.70	—
1985	30.4	.50	.63	.58

Data are from the National Health Interview Surveys for adults 20 years of age or greater, and are age-adjusted to the 1985 US Census⁵

National Health Interview Survey, respondents were directly questioned about their smoking habits, whereas in the Current Population Surveys, proxy responses were commonly used to determine their smoking status (59 percent of the responses among men were provided by proxy).

When possible, it is important to use state-specific information on trends in smoking when setting objectives. Many states now use data from the Behavioral Risk Factor Surveillance System to estimate the prevalence of smoking.⁶ However, telephone surveys generally provide smoking estimates lower than those obtained from in-person surveys. The prevalence estimates from the 22 states that conducted random digit-dialed (self-respondent only) telephone surveys as part of the Behavioral Risk Factor Surveillance System in 1985 were, on the average, 2 percent to 3 percent less than the in-person estimates provided in this report.³ These lower estimates likely result from telephone noncoverage and lower response rates among smokers in telephone surveys.⁷ Nevertheless, this surveillance system has proven useful to states and should be used in the future to set objectives and monitor trends in smoking if these biases are accounted for.

Although predicting smoking prevalences in any state five years hence is difficult, this paper provides a range of estimates that states may consider when setting their own objectives.

Because many programs to reduce the prevalence of cigarette smoking are implemented at the state level, it is important for each state to set reasonable objectives for the future.⁸ One of the purposes in setting forth an objective is to promote new initiatives. Therefore, selecting a target that will be reached without intervention is inappropriate. Similarly, setting objectives that are clearly not achievable is equally inappropriate. To this end, we hope that this report encourages setting objectives based on a careful review of available data and an assessment of the likely impact of future intervention efforts.

ACKNOWLEDGMENTS

We would like to thank Drs. Ronald Davis, John Pierce, and Nancy Binkin for their input and thoughtful review of this manuscript. This study was presented at the 116th annual meeting of the American Public Health Association, in Boston, November 1988.

REFERENCES

1. US Department of Health and Human Services, Public Health Service: Promoting Health/Preventing Disease: Objectives for the Nation. Washington, DC: DHHS, 1980.
2. US Department of Health and Human Services, Public Health Service: The 1990 Health Objectives for the Nation: A Midcourse Review. Washington, DC: DHHS, November 1986.
3. Centers for Disease Control: Smoking prevalence and cessation in selected states—1981–83 and 1985: The Behavioral Risk Factor Surveys. *MMWR* 1986;35:740–743.
4. US Department of Commerce, Bureau of Census: Current population survey: Design and methodology. (Technical Paper No. 40.) Washington, DC: Department of Commerce, Bureau of the Census, 1985.
5. US Department of Health and Human Services, Public Health Service: Reducing the health consequences of smoking: 25 years of progress. A Report of the Surgeon General. Washington, DC: DHHS, 1989.
6. Remington PL, Smith MY, Williamson DF, *et al*: Design, characteristics, and usefulness of state-based behavioral risk factor surveillance: 1981–1987. *Public Health Rep* 1988;103:366–375.
7. Thornberry OT, Massey JT: Trends in US telephone coverage across time and subgroups. *In*: Groves R, Lyberg L, Massey J, Nicholls W, Watsberg J (eds): Telephone Survey Methodology. New York: Wiley Interscience, 1988.
8. Association of State and Territorial Health Officials Foundation: Special report: Profile of 1983 state health agency data relevant to the 1990 objectives for the nation. (Publication No. 84). Washington, DC: ASTHO Foundation, September 1985.

The News on Smoking: Newspaper Coverage of Smoking and Health in Australia, 1987–88

SIMON CHAPMAN, PhD

Abstract: All newspaper articles (n = 1601) mentioning tobacco or smoking drawn from a 12-month census of 30 Australian capital city newspapers in 1987–88 were coded for content, “slant,” and apparent origin. Overall, 62 percent of articles were positive in their orientation toward smoking control objectives, 17 percent were negative, and 21 percent were neutral. Newspapers owned by Rupert Murdoch published 55.7 percent positive and 23.7 percent negative articles compared to 68.0 percent positive and 13.7 percent negative articles in the other large chain of Australian newspapers. (*Am J Public Health* 1989; 79:1419–1421.)

Address reprint requests to Simon Chapman, PhD, Lecturer in Community Medicine, University of Sydney, Westmead Hospital, Westmead, New South Wales 2145, Australia. This paper, submitted to the *Journal* January 23, 1989, was revised and accepted for publication May 17, 1989.

Introduction

Male smoking prevalence has declined in Australia from an estimated 72 percent in 1945¹ to a 1986 level of 31.9 percent.² Female smoking prevalence has risen slightly in the same period from 26 percent¹ to 28.8 percent.² Almost all of the commentary on this decline in male smoking rates has been preoccupied with the impact of government-sponsored and health agency-sponsored mass health information and persuasion campaigns,³ and the introduction of smoking control legislation and regulation.^{4–7}

Since 1983, most States in Australia have conducted mass-media-based public awareness campaigns although the largest of these efforts has had a budget considerably less

than the typical cigarette advertising campaign.

Preoccupation with the impact of defined public sector interventions—such as purchased media time and space, school programs, and smoking cessation efforts—has tended to obscure the impact of a principal means by which the public is exposed to messages about smoking: the news media. This study reports a content analysis of a census of all coverage of smoking issues in capital city newspapers in Australia in a sample period in 1987–88.

Methods

All articles dealing exclusively with or mentioning tobacco or smoking published in all 30 Australian capital city newspapers were obtained from a commercial press clipping service for the 12 months May 1987–April 1988. The newspapers included “quality” and populist newspapers and Sunday editions. A total of 1,601 clippings were thus obtained.

Coding

Each clipping was coded for the publication in which it appeared; date of publication; type of item (news item, feature article, news brief, letter, editorial); apparent origin; principal content; and its “slant” or orientation. These classifications are described in the Appendix. To assess whether the coder’s ratings for slant were idiosyncratic, a randomly selected subsample of 1 percent of the clippings (16 articles), was coded by nine people working in four different smoking control agencies around Australia; a Cohen’s Kappa of 0.84 was obtained, indicating high inter-coder reliability (external validity).⁸

Table 1 shows the principal content of all articles, cross-tabulated by slant. News and commentary on the December 1987 ban on smoking on all domestic airlines (187 items), and on the introduction of the Victorian Tobacco Control Act (106 items) which banned all outdoor and cinema tobacco advertising in that State and raised State tax on tobacco, were widely covered. Articles on passive smoking appeared at 125 percent greater frequency than the next most common principal category (advertising and promotion).

When articles were classified by type of article and slant (Table 2), there was a similar distribution for all main categories with the predictable exception of the fewer neutral letters.

Newspaper ownership in Australia is dominated by two main groups, News Corporation owned by Mr Rupert Murdoch, and John Fairfax and Sons. Positive articles in Murdoch-owned papers (55.7 percent) were less common, compared to Fairfax-owned (68 percent) and other-owned (62.2 percent); negative articles were more common in Murdoch

TABLE 1—Principal Content of Tobacco-Related Articles by Slant

Slant of Article	Total	Positive (%)	Negative (%)	Neutral (%)
Passive smoking	534	319 (59.4)	117 (21.4)	98 (18.2)
Advertising/promotion	237	136 (53.3)	46 (18.0)	55 (21.6)
Cessation	114	97 (85.1)	5 (4.4)	12 (10.5)
Health issues	215	175 (81.4)	19 (8.8)	19 (8.8)
Taxation	212	88 (41.5)	54 (25.5)	71 (33.5)
Miscellaneous	289	182 (63.4)	34 (11.2)	73 (25.4)

Highest ranking issues: Smoking on aircraft (187), Victorian legislation commentary (106), workplace smoking bans (78), sporting sponsorship by tobacco (75), overviews on smoking and health (66), smoking on public transport (63), calls to ban tobacco advertising (58), how to stop smoking (54). Full breakdown available from author.

TABLE 2—Slant of Tobacco Articles by Type of Publication

Type	Positive (%)	Negative (%)	Neutral or N/A (%)
Article	280 (62.9)	51 (11.5)	114 (25.6)
Feature	70 (61.4)	12 (10.5)	32 (28.1)
News brief	252 (59.9)	56 (13.3)	114 (26.8)
Letter	302 (64.4)	137 (29.2)	30 (6.4)
Editorial	6 (50.0)	4 (33.3)	2 (16.7)
Contributor	1 (20.0)	2 (40.0)	2 (40.0)
Column			
Cartoon	13 (38.2)	9 (26.4)	12 (35.3)
Advice column	8 (100)	—	—
Part of wider article	65 (69.9)	5 (5.4)	22 (24.7)
Totals	997 (62.3)	276 (17.2)	328 (20.5)

$\chi^2 = 119.91$ ($p < 0.001$ 2df)

papers (23.7 percent), compared to 13.7 percent in Fairfax-owned and 17.2 percent in other-owned.*

When articles were classified by apparent origin and slant (Table 3), the expected polarizations toward positive articles generated or written by health workers, agencies, and physicians, and negative articles inspired or written by the tobacco and advertising industries were found.

Discussion

Because this study examined only one year of publications in one country, no longitudinal or international comparisons can be made. Comparisons of prevalence with articles on drugs or alcohol would require explicit but debatable hypotheses about some ideal level of equivalence or difference and tone of reporting about various topics. In the absence of any reasonable or accepted standards of what ought to be the frequency of tobacco reporting, little can be concluded, other than to suggest that any notion that Australian newspapers are loathe to print items that may offend their tobacco advertisers carries little support.

Evidence from the USA,^{9–12} and Australia¹³ has demonstrated that there is an inverse relation between the acceptance of tobacco advertising by magazines and the appearance of articles on tobacco. Because all of the newspapers in this study accepted tobacco advertisements, this is not the case with this sample of newspapers in Australia. While Australian newspapers in the past have leaned more toward a negative coverage of proposed bans on tobacco advertising,¹⁴ the evidence here shows no support for the “gag of the tobacco dollar” view. Despite the Murdoch-owned newspapers printing more negative articles than those

*A full breakdown for all 30 newspapers is available from the author.

TABLE 3—Origin of Article by Slant of Article

Origin	Number	Positive (%)	Negative (%)	Neutral or N/A (%)
No obvious source	553	267 (48.3)	70 (12.7)	196 (35.4)
Doctor/health worker/agency	291	258 (88.7)	13 (4.5)	20 (6.9)
Tobacco or advertising industry	65	—	52 (80.0)	13 (20.0)
Citizen	404	255 (63.1)	119 (29.5)	30 (7.4)
Politician	187	131 (70.1)	8 (4.3)	48 (25.7)
Wire service	121	86 (71.1)	14 (11.6)	21 (17.4)
Total	1601	997 (62.3)	276 (17.2)	328 (20.5)

owned by other publishers, Murdoch newspapers still published 2.4 times as many positive articles as negative.

Explanations of the difference between the apparent editorial or owners' policies with US magazines and Australian newspapers require further study, but may lie in two directions: First, articles in magazines are often planned well in advance and therefore may be open to considerably more explicit or latent censorship than those submitted by journalists in the more immediate world of newspaper writing. However, this view would appear to hold little credence in this study: 114 feature-length articles on tobacco were coded, of which 61 percent were positive and only 11 percent negative, the lowest negative proportion for any major category of article. Like magazine journalism, feature article writing in newspapers is often directed from editorial level down to journalists, so the evidence suggests a newspaper editorial climate conducive to the production of "good news"

APPENDIX A

Coding Classification

Principal content was first coded liberally, and then subsumed into six principal classifications (passive smoking, advertising and promotion, smoking cessation, health issues, taxation, and miscellaneous). "Origin" refers to the apparent origin of the item. News items appear after a process of selection by journalists and editors about what is newsworthy. This selection occurs from sources which frequently include groups with explicit interests in having certain views of issues appear in print. Both the promotion and control of smoking are issues which have vested interest groups keen on having the media publicize news and commentary favorable to their respective interests.¹⁷ A 1973 study of nearly 3,000 items published in the *New York Times* and the *Washington Post* found that 58.2 percent of stories came from "routine" channels (press releases, semi-official documents etc).¹⁸ The concept of "pronunciamento"¹⁷—or the direct transfer of information, ideas or accusations from interest groups to readers via virtually unaltered transcripts of their press releases—appeared to be applicable to many items in the sample.

"Slant," coded either positive, negative, or neutral/not applicable, refers to the extent to which any article could reasonably be said to be supportive of a social climate antithetical to smoking. Such judgment begs the question of who is doing the judging.¹⁹ I approached this by considering how a person concerned to advance smoking control objectives would judge any given article. Would a smoking control advocate be pleased or displeased to see a particular article appearing in print? Articles judged as being likely to be read by a person favorably disposed toward smoking control, as enhancing the general view that smoking and those institutions, interests, laws and policies that support it are undesirable were coded "positive." Articles that would be understood by such a person as conveying a view of smoking as in some way positive, relatively unimportant compared to other issues, or which were critical of laws, policies and individuals advocating restricting or opposing smoking were coded "negative". Articles which were judged as being neither clearly positive or negative, which evidenced a clear attempt at balancing health and tobacco industry views, or which were simple announcements about (for example) a forthcoming rise in tobacco excise, were coded "neutral/not applicable."

on smoking in Australia.

The second explanation is that tobacco advertising is more economically important to magazines than to newspapers and that magazines would be thus less inclined to "bite the hand that feeds them." *The Age* newspaper, which ran many more articles on tobacco than any other in the sample, receives about \$1.00 from cigarette advertising for every \$200 from all advertising,¹⁵ compared to about \$1 in \$60 for newspapers generally.¹⁶ Australian magazines, by contrast, receive about twice the total proportion of advertising dollars from tobacco as do newspapers.¹⁶ This explanation is more consistent with the greater and more positive coverage of smoking issues in newspapers compared to that in magazines.

ACKNOWLEDGMENTS

This research was funded by a grant provided by the Directorate of the New South Wales Drug Offensive. I am indebted to Jenny Madelaine for her assistance with coding.

REFERENCES

1. Woodward SD: Trends in cigarette consumption in Australia. *Aust NZ J Med* 1984; 14:405-407.
2. Hill DJ, White VM, Gray NJ: Measures of tobacco smoking in Australia by means of a standard method. *Med J Aust* 1988; 149:10-12.
3. Pierce JP, et al: Evaluation of the Sydney "Quit For Life" anti-smoking campaign. Part 1. Achievement of intermediate goals. *Med J Aust* 1986; 144:341-344.
4. Wilson DH, Wakefield MA, Esterman A, Baker CC: 15s: they fit in anywhere, especially the school bag. *Community Health Stud* 1987; 11(1)Suppl:16-20.
5. Chapman S, Reynolds C: Regulating tobacco—The South Australian Tobacco Products Control Act 1986. *Community Health Stud* 1987; 11(1)Suppl:9-15.
6. Chapman S, Wilson D, Wakefield M: Smokers' understandings of cigarette yield labeling. *Med J Aust* 1986; 145(8):376-379.
7. National Health and Medical Research Council: Effects of passive smoking on health. Canberra: NH&MRC, 1986.
8. Landis RJ, Koch GG: The measurement of observer agreement for categorical data. *Biometrics* 1977;33:159-174.
9. Weis W, Burke C: Media content and tobacco advertising: An unhealthy addiction. *J Communication* 1986; 36:59-69.
10. Minkler M, Wallack L, Madden P: Alcohol and cigarette advertising in *MS Magazine*. *J Public Health Policy* Summer 1987; 8(2):164-179.
11. Warner KE: Cigarette advertising and media coverage of smoking and health. *N Engl J Med* 1985;312:384-388.
12. Whelan EM, et al: Analysis of coverage of tobacco hazards in women's magazines. *J Public Health Policy* Mar 1981; 2(1):28-35.
13. Silberberg JS, Magnus P: What will we tell the public? The coverage of cigarette smoking by Australian magazines. Sydney: Action on Smoking and Health, 1988.
14. Chapman S: On not biting the hand that feeds you: tobacco advertising and editorial bias in Australian newspapers. *Med J Aust* 1984; 140:8, 480-482.
15. Birnbauer W, Harari F: Anti-smoking pressure on the print media. *The Age* April 1987; 27:15.
16. Commercial Economic Advisory Service: Advertising expenditure in main media, 1985. Sydney: Commercial Economic Advisory Service, 1986.
17. Gandy OH: Information in health: Subsidized news. *Media, Culture and Society* 1980; 2:103-115.
18. Sigal LV: Reporters and officials. Lexington: DC Heath, 1973.
19. Morley D: The nationwide audience. London: British Film Institute, 1980.