

# The content and structure of Australian television reportage on health and medicine, 2005–2009: parameters to guide health workers

Simon Chapman, Simon J Holding, Jessica Ellerm, Rachel C Heenan, Andrea S Fogarty, Michelle Imison, Ross Mackenzie and Kevin McGeechan

Health and medicine have long been leading news themes:<sup>1,2</sup> studies of Australian print media have shown frequent, prominent coverage,<sup>3–5</sup> even exceeding that of high-budget social marketing health campaigns.<sup>6</sup> All government public health interventions are conducted against a backdrop of changing media depictions of health issues. Health news is a “background” issue that deserves to be moved into the research foreground of explanations of changes in personal behaviour and health policy.<sup>7</sup>

Research has shown that people acknowledge news media as their primary source of information about health, particularly in areas in which they have limited personal experience.<sup>8</sup> Media coverage can influence people’s agendas about health: what health issues matter, what to avoid or fear, and what preventive actions to take. The media play a central role in the way the public perceive medical treatments. For example, news media have been crucial to the phenomenal increase in the use of complementary medicine,<sup>9</sup> the rise of anti-immunisation rhetoric,<sup>10</sup> the rapid reduction in use of hormone replacement therapy following news reports about health risks,<sup>11</sup> and increases in breast cancer screening after publicity on celebrity diagnosis.<sup>12</sup>

Media coverage can foment beliefs about research and policies that should be supported or opposed, positioning research, medical specialties or procedures as heroic, essential and worthy of continuing support — or marginal, unimportant and even to be actively discouraged. Media coverage can affect community opinions about government priorities. Most high-priority public health issues have been the focus of intensive and extended media coverage. An Australian health minister offered this explanation of research under-funding of two cancers relative to HIV/AIDS: “it isn’t fashionable, it’s not at all in the front pages, it’s not sexy to have testicular or prostate cancer, so you don’t get a run”.<sup>13</sup> A third of Australian politicians surveyed in 2005 nominated news media as “highly influential” on their opinions, ahead of the influence of other politicians (25%), representation from business (23%) and research and opinion polling (16%).<sup>14</sup>

## ABSTRACT

**Objective:** To describe the content and structure of health and medical news and current affairs reportage on free-to-air television in Sydney, New South Wales.

**Design and setting:** Review of content of all health-related evening news and current affairs items recorded over 47 months (May 2005 – March 2009).

**Main outcome measures:** Number and length of health-related items on news and current affairs programs, and topics covered in these (21 broad content areas and the leading 50/237 specific content areas); use of news actors, soundbite duration and apparent news triggers.

**Results:** 11 393 news items and 2309 current affairs items were analysed. Health news items lasted a median of 97 seconds. In a randomly selected sample of 251 items, items featured a mean of 2.2 news actors (3.9 in longer current affairs items). Median soundbite duration was 7.2 seconds for news items and 8.9 seconds for current affairs items. People affected by disease or injury were the most commonly featured news actors (84% of items), followed by experts and health professionals (56%). Many items (42%) appeared to be triggered by incidents, but a further 42% could have been triggered by press releases and other forms of publicity.

**Conclusions:** Health workers wishing to participate in news coverage should be aware that complex issues are reduced to fit the time constraints and presentational formulae of the news media. Advocates should plan their communication strategies to accommodate these constraints.

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## BACKGROUND

Since May 2005, the Australian Health News Research Collaboration (AHNRC)<sup>15</sup> has recorded all prime-time news, current affairs and health-related “infotainment” television programs (medical “reality” programs, weight loss and cosmetic surgery programs, but excluding fictional health or medical dramas and soap operas) broadcast on the five free-to-air TV channels in Sydney, New South Wales (ABC, SBS, Seven, Nine and Ten). These programs are reviewed daily and all items relevant to health and medicine are saved to a digital database, currently occupying over 1.2 terabytes.

In deciding what should be saved as relevant to health, the term is broadly operationalised to include any item explicitly mentioning a health care facility, health care provider group, health minister, disease, injury, health outcome or disease risk factor. Broader topics relevant to health (eg, road safety, poverty, housing, employment, transport, education and child development) are not included in the database unless they contain explicit reference to a health issue or

outcome. For example, reports of motor vehicle accidents are included when death or injury is mentioned, but not when a report only covers resultant traffic congestion. Reports about alcohol and drugs are included only if they describe death, illness or injury (rather than issues relating to law and order). Occupational and domestic deaths and injuries are included, but those caused by airline, train or maritime incidents, natural disasters, war, assault or other criminal conduct are not, as in media research they are traditionally subsumed under their more fundamental news categories. Climate change reports are included only if explicit mention is given to predicted health consequences in more than a passing reference.

All eligible items are indexed by date, program, broad topic, specific issue and sources quoted, and stored in a digital archive used by AHNRC researchers to undertake studies of media content, audience response and message deconstruction, and studies of the journalistic framing process. All named “news actors” (people interviewed in news and current affairs programs), including

those listed under generic categories like “citizen” or “nurse”, are listed.

In this overview article, we show the distribution of different health content areas in TV coverage broadcast from Sydney since the inception of the database. We also report norms on some basic, under-studied “architecture” of news and current affairs health items, providing data on the median length of items; the duration and frequency of soundbites (statements made by news actors<sup>16,17</sup>); and data on the types of news actors who appear in news reports (ie, experts, politicians, citizens, patients and health care consumers, industry spokespeople). We also present data on the different categories of broad news “trigger” that apparently generated news coverage of each item. These were inferred from the main focal point of the news item (eg, “a report just released”, “a new campaign launched today”).

**METHODS**

For this analysis, we excluded all “infotainment” health programs and breakfast TV items from the database. All evening news and current affairs items recorded for the 47 months between 2 May 2005 and 15 March 2009 were digitally timed by the recording equipment. The length of each item was entered into an Excel spreadsheet (Microsoft Corporation, Redmond, Wash, USA), along with information identifying the channel; date; program; up to two categories of general content; up to four categories of specific content; and all news actors appearing in the item (named, or generic if not named) (<http://tobacco.health.usyd.edu.au/share/TV.xls>).

News reports frequently have several different foci. To capture this, each archived item was initially coded by one of us (SJH) as being predominantly about up to two of 21 broad content categories that emerged from the TV clips over time (Box 1). For example, a report on a new health care facility for cancer patients would be coded under both “health system” and “cancer”; and an item on heart disease and smoking would be coded as “cardiovascular” and “substance use”.

To allow for a more disaggregated analysis of content, all items were also coded for at least one and up to four specific content areas selected from a list of 218 content areas, which emerged progressively as more items were added to the database as news was broadcast on emerging (eg, avian influenza) or uncommonly reported (eg, Hendra virus) health issues. An item broadly coded as “injury” might, for example, be specifically coded as a road, occupational, domestic or

**1 Distribution of broad health news topics in 13 702 television items, with percentage of all health coverage for each topic\***

Rank	Broad news topic	News, no. (%) (n = 11 393)	Current affairs, no. (%) (n = 2309)	Total, no. (%) (n = 13 702)
1	Injury	3297 (28.9%)	266 (11.5%)	3563 (26.0%)
2	Health care system	1970 (17.3%)	353 (15.3%)	2323 (17.0%)
3	Medical and surgical advances	1701 (14.9%)	364 (15.8%)	2065 (15.1%)
4	Stages of life and development (childhood, youth and ageing)	1619 (14.2%)	396 (17.2%)	2015 (14.7%)
5	Cancer	1245 (10.9%)	191 (8.3%)	1436 (10.5%)
6	Infectious and vector-borne diseases (including HIV and other STIs)	951 (8.3%)	81 (3.5%)	1032 (7.5%)
7	Food, nutrition and obesity	903 (7.9%)	567 (24.6%)	1470 (10.7%)
8	Substance use	716 (6.3%)	170 (7.4%)	886 (6.5%)
9	Cardiovascular health	389 (3.4%)	54 (2.3%)	443 (3.2%)
10	Mental health or suicide	358 (3.1%)	142 (6.1%)	500 (3.6%)
11	Environmental health	296 (2.6%)	42 (1.8%)	338 (2.5%)
12	Respiratory and sleep disorders	288 (2.5%)	58 (2.5%)	346 (2.5%)
13	Disability or sensory impairment	244 (2.1%)	83 (3.6%)	327 (2.4%)
14	Neurological health	207 (1.8%)	55 (2.4%)	262 (1.9%)
15	Endocrine disease (eg, diabetes)	180 (1.6%)	14 (0.6%)	194 (1.4%)
16	Aboriginal or Indigenous health	167 (1.5%)	64 (2.8%)	231 (1.7%)
17	Miscellaneous (otherwise unclassified)	111 (1.0%)	53 (2.3%)	164 (1.2%)
18	Musculoskeletal disease	89 (0.8%)	23 (1.0%)	112 (0.8%)
19	Dental or oral health	62 (0.5%)	17 (0.7%)	79 (0.6%)
20	Complementary medicine	58 (0.5%)	60 (2.6%)	118 (0.9%)
21	Dermatological health	39 (0.3%)	58 (2.5%)	97 (0.7%)

STI = sexually transmissible infection.  
\* Column percentages add to > 100% because each item could be coded in up to two categories. ◆

sporting injury. If it gave specific focus to ambulance services attending injuries, it would also be coded for emergency services, and if it additionally focused on falls among older people, it would be coded “domestic injury + emergency services + aged health”.

To test the reliability of the principal coder’s (SJH) assignment of items into both the general and specific categories of item content, a sample of 30 items was selected by a random number generator from the full database of news and current affairs items, and six investigators (SC, ASF, MI, RM, and two others) were provided with the coding categories and asked to assign each item into up to two general and up to four specific categories. The six reliability test coders were told how many codes the principal coder had assigned to each item. The concordance of the six others’ assignments with those of the principal coder was then tested using Cohen’s  $\kappa$ .<sup>18</sup>

At an earlier stage in the project, we assessed the frequency and duration of soundbites by different categories of news actor. Using a random number generator, we

drew a sample of 2% of the 12 550 items that were in the database on 30 August 2007 (n=251; 196 news and 55 current affairs items) from the database. Each of these was viewed, and soundbites were counted and timed using an electronic digital timer. After viewing many items, a set of eight news actor categories emerged into which every person shown interviewed could be allocated.

**RESULTS**

The  $\kappa$  agreement for the 30 randomly selected items was 0.63 (95% CI, 0.61–0.65) across the general content categories, indicating a good level of agreement.<sup>18</sup> Box 1 shows the distribution of content across 21 broadly defined health categories. Box 2 shows the leading 50 specific content areas covered across the 13 702 items analysed, differentiated as news and current affairs. Reports of injuries dominated news coverage, with road injury items (13.8%) occurring much more frequently than the second most common news topic (hospitals in crisis; 8.0%).

## 2 Leading 50 specific health topics in 13 702 television items, with percentage of all health coverage for each topic\*

Ranking	News items (n = 11 393)	Total (%)	Current affairs items (n = 2309)	Total (%)
1	Road injury	1577 (13.8%)	Obesity and overweight	281 (12.2%)
2	Hospitals in crisis	915 (8.0%)	Food and nutrition	209 (9.1%)
3	Celebrity illness and injury	741 (6.5%)	Children's health	186 (8.1%)
4	Medical technology and breakthroughs	656 (5.8%)	Cosmetic surgery	144 (6.2%)
5	Children's health	590 (5.2%)	Medical misconduct	131 (5.7%)
6	Medical misconduct	537 (4.7%)	Celebrity illness and injury	129 (5.6%)
7	Health funding	480 (4.2%)	Hospitals in crisis	125 (5.4%)
8	Medical ethics	458 (4.0%)	Prescription drugs	91 (3.9%)
9	Political party statements	454 (4.0%)	Health funding	90 (3.9%)
10	Recreational injury	451 (4.0%)	Medical ethics	89 (3.9%)
11	Prescription drugs	420 (3.7%)	Road injury	88 (3.8%)
12	Obesity and overweight	397 (3.5%)	Food security	83 (3.6%)
13	Cancer (general)	394 (3.5%)	Alcohol	73 (3.2%)
14	Breast cancer	383 (3.4%)	Medical technology and breakthroughs	71 (3.1%)
15	Avian influenza	357 (3.1%)	Food labelling, additives and allergies	69 (3.0%)
16	Heart disease	299 (2.6%)	Cancer (general)	68 (2.9%)
17	Birth and infant mortality	268 (2.4%)	Youth health	66 (2.9%)
18	Food security	267 (2.3%)	Illicit drugs	63 (2.7%)
19	Wild animal attacks	257 (2.3%)	Surgery	62 (2.7%)
20	Food and nutrition	254 (2.2%)	Complementary medicine	62 (2.7%)
21	Tobacco	251 (2.2%)	Depression	54 (2.3%)
22	Alcohol	249 (2.2%)	Political party statements	52 (2.3%)
23	Transplantation and organ donation	238 (2.1%)	Birth and infant mortality	52 (2.3%)
24	Emergency medical services	229 (2.0%)	Recreational injury	49 (2.1%)
25	Surgery	226 (2.0%)	Skin conditions	46 (2.0%)
26	Pregnancy	221 (1.9%)	Breast cancer	44 (1.9%)
27	Illicit drugs	220 (1.9%)	Heart disease	41 (1.8%)
28	Aged health	220 (1.9%)	Rare diseases	41 (1.8%)
29	Diabetes	211 (1.9%)	Pregnancy	40 (1.7%)
30	Stem cells	210 (1.8%)	Aged health	39 (1.7%)
31	Burns	204 (1.8%)	In-vitro fertilisation	38 (1.6%)
32	Youth health	199 (1.7%)	Transplantation and organ donation	37 (1.6%)
33	Infant health	194 (1.7%)	Rural health	37 (1.6%)
34	Occupational health and safety	193 (1.7%)	ADHD and ADD	37 (1.6%)
35	Low- and middle-income country health	186 (1.6%)	Mental health	35 (1.5%)
36	Sports injury	185 (1.6%)	Sleep disorders	34 (1.5%)
37	Immunisation	182 (1.6%)	Physical activity	32 (1.4%)
38	Hospitals and new health facilities	166 (1.5%)	Skin cancer	29 (1.3%)
39	Depression	159 (1.4%)	Suicide	29 (1.3%)
40	Household injury	156 (1.4%)	Tobacco	28 (1.2%)
41	Injury (miscellaneous)	142 (1.2%)	Eating disorders	28 (1.2%)
42	Abortion	135 (1.2%)	Physical and intellectual disability	28 (1.2%)
43	In-vitro fertilisation	133 (1.2%)	Pain	27 (1.2%)
44	Rural health	133 (1.2%)	Burns	26 (1.1%)
45	Skin cancer	132 (1.2%)	Wild animal attacks	25 (1.1%)
46	Causes of cancer	130 (1.1%)	Infant health	25 (1.1%)
47	Dog attacks	129 (1.1%)	Dental health	24 (1.0%)
48	Asbestos	128 (1.1%)	Causes of cancer	23 (1.0%)
49	Pollution	118 (1.0%)	Emergency medical services	22 (1.0%)
50	Influenza and colds	111 (1.0%)	Low- and middle-income country health	22 (1.0%)

ADHD = attention deficit hyperactivity disorder. ADD = attention deficit disorder. \* Column percentages add to >100% because items could be coded in 1–4 categories. ◆

There were some interesting differences between news and current affairs programs in the rank order of health topics. Current affairs programs gave higher coverage to what might be termed “appearance” health issues. One in five current affairs health items were

about some aspect of weight loss, dieting or nutrition, and cosmetic surgery coverage ranked fourth in current affairs but was not in the top 50 news categories. This is explained by current affairs programs on commercial TV commonly running what are little more than news “advertorials” for commercial diet regimens and nutritional fads.

**DISCUSSION**

The data in this article should provide a “reality check” for any health worker hoping to attract news media interest in publicising health issues, advocating for change or communicating information to the public.

Those interviewed for TV about health matters should expect to have 7.2 seconds on a news program, and 8.9 seconds on a current affairs program, in which to convey their core message. Except for high-importance reports, news is rarely broadcast live. Reporters typically pre-record interviews with news actors and, together with news editors, select succinct soundbites. Long-winded, qualified sentences are incompatible with the formulaic, time-limited construction of news and rarely survive editing. This can present challenges to health workers and researchers who are used to communicating through elaborate and detailed research reports, via the precision and academic conventions of scholarly writing, and in professional meetings such as conferences, lectures and seminars. These often allow relatively long periods of time in which to convey complex information. Whereas these traditional vehicles of professional health communication can sometimes reach thousands, in the case of an article published in a high-circulation general medical journal, or a plenary lecture delivered to several thousand at an international meeting, they do not compare with the audience sizes for even low-rating TV programs (eg, *Late-line*), which can include health professionals, politicians and other people who influence health policy and practice. Nine of 10 Australians watch at least one program of free-to-air TV news each week.<sup>19</sup> A news issue covered by all five Sydney free-to-air TV channels on the evening of Sunday, 17 May

**3 Length of 11 809\* health items shown by program**

Program	No. of items	Median time, min:s
<b>News</b>		
<i>Ten news</i>	2241	1:36
<i>Nine news</i>	1634	1:33
<i>Seven news</i>	1534	1:32
<i>ABC news</i>	1387	1:43
<i>SBS world news*</i>	1102	2:08
<i>Ten's late news</i>	996	1:33
<i>Nightline (ABC)</i>	787	1:37
<b>Current affairs</b>		
<i>Today tonight (Seven)</i>	696	4:19
<i>A current affair (Nine)</i>	673	4:22
<i>The 7.30 report (ABC)</i>	269	7:16
<i>60 minutes (Nine)</i>	91	13:43
<i>Sunday night (Seven)</i>	86	4:27
<i>Lateline (ABC)</i>	82	3:02
<i>Catalyst (ABC)</i>	73	9:30
<i>Australian story (ABC)</i>	39	27:33
<i>Four corners (ABC)</i>	28	44:44
<i>Insight (SBS)</i>	27	55:40
<i>Living black (SBS)</i>	26	5:15
<i>Foreign correspondent (ABC)</i>	14	20:31
<i>Media watch (ABC)</i>	13	4:01
<i>Dateline (SBS)</i>	11	23:00

\*This count was performed earlier in the project. ♦

**Length of news items**

Box 3 shows the median length of all health items for each news and current affairs program. With the exception of SBS news items, which were about 30 seconds longer than news items on other channels, the median length of news items was 97 seconds. Current affairs items were of variable length, reflecting their different formats (eg, multi-item magazine style compared with hour-long documentary style).

**News actors**

In the random sample of 251 items examined, a mean of 2.2 news actors featured in news items, and a mean of 3.9 featured in the longer current affairs items. The median soundbite duration for all news actors was 7.2 seconds in news items, and 8.9 seconds in current affairs items (Box 4).

Reporting unplanned health-related incidents — particularly injury-related — outnumbered the next most common news trigger (research findings) by almost four to one. However, reportage of all categories of “manufactured news” generated by publicity (research, press releases about new treatments and trials, reports, government announcements, and public health campaigns) constituted at least one-third of all health-related news (Box 5).

**4 Categories of news actor and soundbite length in 251 randomly selected news and current affairs items**

News actor	News (n = 196)				Current affairs (n = 55)			
	No. of appearances	No. of soundbites	Mean soundbites per item	Median soundbite duration (IQR), s	No. of appearances	No. of soundbites	Mean soundbites per item	Median soundbite duration (IQR), s
Patients, victims or proxies	117	175	1.5	6.6 (4.8–8.8)	95	301	3.2	8.5 (5.0–12.8)
Experts	98	136	1.4	7.9 (5.7–10.2)	42	155	3.7	11.3 (6.9–15.5)
Government politicians	74	95	1.3	7.3 (1.2–31.5)	3	7	2.3	21.0 (11.3–26.4)
Civil servants, including emergency service personnel	53	71	1.3	8.1 (5.1–9.7)	5	19	3.9	6.9 (5.0–10.7)
Patient support or advocacy group members	31	37	1.2	8.0 (5.7–10.7)	11	32	2.9	9.0 (6.6–12.3)
Everyperson (vox populi)	23	21	1.0	4.2 (1.6–5.4)	34	51	1.5	4.3 (2.0–8.0)
Opposition and independent politicians	22	25	1.1	6.0 (3.8–8.0)	1	14	14.0	60.0 (43.8–60.0)
Entities with commercial interests; people alleged to be causing health problem	16	20	1.3	7.2 (5.0–9.4)	25	71	2.8	9.0 (3.8–12.2)
All types	434	580	1.3	7.2 (4.8–9.2)	216	650	3.0	8.9 (5.0–14.0)

IQR = interquartile range. ♦

**5 Apparent triggers for 251 news and current affairs items**

Apparent trigger	No. (%)
Incident-based ("hard") news	105 (42%)
Research	27 (11%)
Celebrity illness	26 (10%)
New treatments and trials	25 (10%)
Government report	20 (8%)
Government announcement	19 (8%)
Public health campaign/event	7 (3%)
Business report	6 (2%)
Indiscernible	16 (6%)

**6 National audience, 17 May 2009<sup>20</sup>**

Program	Audience, million
Seven news	1.70
Nine news	1.55
ABC news	0.97
Ten news	0.72
SBS world news	0.21

2009 could have been seen by 5.15 million people (Box 6).<sup>20</sup>

Change in the structure of TV reportage to more journalist-centred news has seen soundbite length shrink in the United States from over 40 seconds in the late 1960s to 7.73 seconds in 2004.<sup>21</sup> However, in the United Kingdom during the 2005 general election, politicians' soundbites averaged close to 25 seconds on ITV and the BBC.<sup>22</sup> Australian TV news appears to follow the US format more closely. The mean news soundbite length (7.2 seconds) we observed was consistent with that reported in a study of soundbite length in the 2007 Australian federal election (6.99 seconds).<sup>23</sup>

Among health-related items, the most common category of news actor seen on Sydney TV news and current affairs, measured by both number of news items in which they appeared and number of soundbites allocated by news editors, was "patients, victims or proxies", who made 117 appearances in the 196 sampled news items and 95 appearances in the 55 sampled current affairs items. The views of those affected by health problems are thus almost standard to Australian coverage of health news. Knowing this, health policy advocates would be wise to work in concert with people affected by health problems. Advocacy coalitions can be formed of those living with particular diseases and professionals who are trying to influence policy changes. As the evidence

presented here demonstrates, "authentic" news actors who have experienced health problems are highly attractive to those who construct news as providing a "human dimension" to health- and disease-related statistics and research reports.<sup>24</sup>

Experts and health professionals were the next most commonly interviewed news actors (appearing in 50% of news items and 76% of current affairs items). Again, health workers would do well to keep in mind news media appetite for health and medical expertise, with the opportunities that this presents to put succinct information and commentary in front of many (sometimes millions of) viewers.

Almost half of all news coverage on health arose from purposive efforts to attract news coverage through the release of research results, announcements, campaigns and events. Health workers often featured as expert commentators on preferred policy implications.

When both generating news and responding to breaking news, health workers need to appreciate the structures, constraints and preferences within the day-to-day routines of news gathering. The aim of the AHNRC is to further elucidate these mechanisms, toward greater mutual understanding among both journalists and health workers, with the ultimate goal of having a better-informed media-consuming public.

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**COMPETING INTERESTS**

None identified.

**AUTHOR DETAILS**

Simon Chapman, PhD, FASSA, Professor  
 Simon J Holding, BA, Research Officer  
 Jessica Ellerm, BSc, Research Assistant  
 Rachel C Heenan, Medical Student and Research Assistant  
 Andrea S Fogarty, MIPH, Research Officer  
 Michelle Imison, MIPH, Research Officer  
 Ross Mackenzie, MA, Research Officer  
 Kevin McGeechan, BSc, Lecturer  
 School of Public Health, University of Sydney, Sydney, NSW.

Correspondence: sc@med.usyd.edu.au

**REFERENCES**

1 Chapman S, Lupton D. Freaks, moral tales and medical marvels: health and medical stories on Australian television. *Media Inf Aust* 1994; 72: 94-103.  
 2 Lupton D. Medical and health stories on the *Sydney Morning Herald's* front page. *Aust J Public Health* 1995; 19: 501-508.

3 Lupton D, McLean J. Representing doctors: discourses and images in the Australian press. *Soc Sci Med* 1998; 46: 947-958.  
 4 Pirkis J, Dare A, Blood RW, et al. Changes in media reporting of suicide in Australia between 2000/01 and 2006/7. *Crisis* 2009; 30: 25-33.  
 5 Wilson A, Bonevski B, Jones A, Henry D. Media reporting of health interventions: signs of improvement but major problems persist. *PLoS One* 2009; 4: e4831.  
 6 Nelson DE, Evans WD, Pederson LL, et al. A national surveillance system for tracking tobacco news stories. *Am J Prev Med* 2007; 32: 79-85.  
 7 Chapman S. The news on tobacco control: time to bring the background into the foreground. *Tob Control* 1999; 8: 237-239.  
 8 Hertog JK, Fan DP. The impact of press coverage on social beliefs: the case of HIV transmission. *Commun Res* 1995; 22: 545-574.  
 9 Bonevski B, Wilson A, Henry DA. An analysis of news media coverage of complementary and alternative medicine. *PLoS One* 2008; 3: e2406.  
 10 Leask JA, Chapman S. An attempt to swindle nature: press reportage of anti-immunisation, Australia 1993-1997. *Aust N Z J Public Health* 1998; 22: 17-26.  
 11 Haas JS, Miglioretti DL, Geller B, et al. Average household exposure to newspaper coverage about the harmful effects of hormone therapy and population-based declines in hormone therapy use. *J Gen Intern Med* 2007; 22: 68-73.  
 12 Chapman S, McLeod K, Wakefield M, Holding S. Impact of news of celebrity illness on breast cancer screening: Kylie Minogue's breast cancer diagnosis. *Med J Aust* 2005; 183: 247-250.  
 13 Dow S. The politics of breast cancer. *Weekend Australian* 1994; 16-17 Apr: 35.  
 14 Australian political influence survey. A study of elected officials in Australia and what influences their opinion. March 2005. Canberra: Parker & Partners, 2005.  
 15 Chapman S, MacKenzie R. The Australian Health News Research Collaboration [letter]. *Med J Aust* 2007; 186: 326.  
 16 Bell A. The discourse structure of news stories. In: Bell A, Garrett P, editors. *Approaches to media discourse*. Oxford: Blackwell, 1998: 64-104.  
 17 Jucker AH. News actor labeling in British newspapers. *Text* 1996; 16: 373-390.  
 18 Fleiss JL. *Statistical methods for rates and proportions*. 2nd ed. New York: Wiley, 1981.  
 19 Australian Communications and Media Authority. *ACMA Communications Report 2006-07*. Canberra: ACMA, 2008. [http://www.acma.gov.au/WEB/STANDARD/pc=PC\\_310950](http://www.acma.gov.au/WEB/STANDARD/pc=PC_310950) (accessed Mar 2009).  
 20 Dyer G. 16s to 39s abandoning TV. *Crikey* 2009; 18 May. <http://www.crikey.com.au/2009/05/18/last-nights-tv-ratings-13/> (accessed May 2009).  
 21 Bucy EP, Grabe ME. Taking television seriously: a sound and image bite analysis of presidential campaign coverage, 1992-2004. *J Commun* 2007; 57: 652-675.  
 22 Deacon D, Wring D, Billing M, et al. Reporting the 2005 UK general election. Loughborough, UK: Communication Centre, Loughborough University, 2005.  
 23 Young S. Political discourse in the age of the soundbite: the election campaign soundbite on Australian television news. Australian Political Science Association Conference; 2008 Jul 6-9; Brisbane. <http://www.polsis.uq.edu.au/apsa2008/Refereed-papers/Young.pdf> (accessed Mar 2009).  
 24 Henson C, Chapman S, McLeod L, et al. More us than them: positive depictions of mental illness on Australian television news. *Aust N Z J Psychiatry* 2009; 43: 554-560.

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