

CRYSTALE PURVIS COOPER, PHD ■ DEBRA L. ROTER, DRPH

# “If It Bleeds It Leads”? Attributes of TV Health News Stories That Drive Viewer Attention

## S Y N O P S I S

**Objective.** Health advocates increasingly use the news media to educate the public. However, little is known about what motivates individuals to pay attention to health news. This study investigated which characteristics of TV health news stories attract viewer interest.

**Methods.** The authors surveyed airport patrons, the audience of a public health symposium, and municipal jurors, asking which attributes of TV health news stories encouraged interest and which attributes discouraged interest. The authors ranked mean responses and compared them using Spearman rank correlations.

**Results.** The rankings assigned by the three samples were highly correlated. Respondents reported being most attracted to health stories about personally relevant topics. Interestingly, they also reported that sensational story elements such as “showing a bloody or injured person” and “being action packed” did not substantially influence their attention.

**Conclusions.** This study suggests that viewers, regardless of their level of health knowledge, value the same attributes in TV health news stories. Emphasizing the personal relevance of health topics appears to be a viable strategy to capture viewer interest. Conversely, the tendency of broadcast news to sensationalize stories may be distracting in the case of health news.

Dr. Cooper is a Postdoctoral Fellow, Arizona Cancer Center, University of Arizona, Tucson, and Dr. Roter is a Professor, Johns Hopkins School of Hygiene and Public Health, Baltimore, Maryland. At the time of this study, Dr. Cooper was a doctoral candidate at the Johns Hopkins School of Hygiene and Public Health.

### Address correspondence to:

Dr. Cooper, Communication Health Sciences, Arizona Cancer Center, Univ. of Arizona, 1522 E. Drachman, Box 210475, Tucson AZ 85721-0475; tel. 520-626-9339; fax 520-626-6695; e-mail <cpc@u.arizona.edu>.

Historically, the credo of local TV news has been "If It Bleeds, It Leads." In addition to graphic imagery, broadcast journalists prize novelty, timeliness, human interest, conflict, scandal, and celebrity involvement.<sup>1-6</sup> These news value or newsworthiness criteria guide the selection of health stories that receive coverage<sup>5-7</sup> as well as their focus.<sup>3,8</sup>

Health advocates increasingly use the news media as a vehicle to educate the public, and many have become quite skilled at accentuating the newsworthiness of stories to secure coverage.<sup>6</sup> Yet while the news value standards used by reporters are well understood, little is known about the criteria that viewers use to decide which health news stories to watch. This lack of understanding is of particular concern given that, on average, viewers remember less than a quarter of the information<sup>9</sup> and story topics<sup>10-12</sup> presented in a typical newscast. Thus, broadcasting health information into

America's homes does not guarantee that it will reach occupants even if they are watching TV.

Communication scholars have investigated the characteristics of news stories that drive viewer interest, attention, and information recall. However, the generalizability of these findings to health news is questionable. In studies conducted by the broadcasting industry, health news is frequently rated by viewers as the category of news that interests them most.<sup>14-16</sup> In addition, health information is highly personal, and individuals actively seek it out.<sup>13</sup> Since viewers will purposefully tune in to see a story about a health topic of concern, news producers increase the volume and prominence of health news during sweeps, the four periods each year in which audience size determines the price of commercial airtime.<sup>17</sup>

The goal of this study was to determine which attributes of TV health news stories attract viewers and which deter them. The study design was guided by

### THE JURY POOL: AN UNTAPPED SOURCE OF RESEARCH PARTICIPANTS

Recruitment of participants is one of the most time-consuming and costly tasks in public health research.

One rich source of research participants is the US jury system. The courts routinely select random samples of members of the public to satisfy the Sixth Amendment mandate that juries be drawn from a representative cross-section of the community.<sup>32</sup> Jurors are generally drawn from comprehensive population listings such as driver's license records, which have been shown to capture more than 90% of the adult residents of a state.<sup>33</sup> While jurors typically spend at least one full day at the courthouse, the majority are not assigned to a case, and some are not even called into a courtroom for selection. Thus, jury service often involves a great deal of waiting.

Despite the availability of this captive study population, only a few public health researchers appear to have recruited participants from jury pools. A MEDLINE search using the words "jury pool" and "juror" located only two public health studies that enrolled jurors.<sup>34,35</sup>

When we approached the municipal jury system in Baltimore, Maryland, court officials were surpris-

ingly receptive. We were provided space in the courthouse building for an experimental laboratory. Only minor changes to the study materials were required to remove items that court officials felt could potentially bias jurors against defendants (crime stories in experimental news videos). In addition, we were asked to abide by four ground rules designed to ensure that the study would not interfere with court activities:

- a) *The needs of the court always superseded data collection.* We agreed that if the court needed jurors who were taking part in the study, we would immediately release them from participation.
- b) *Study participants received no form of compensation.* The court officials felt that it was inappropriate to compensate jurors because they were agents of the court and were already being paid for their service.
- c) *Court staff maintained the list of study volunteers and supervised their deployment to the laboratory.* This procedure ensured that court officials knew the whereabouts of participating jurors at all times.

Fishbein and Ajzen's Expectancy-Value Model, which quantifies attitude as the sum of beliefs about a given object or behavior (expectancy) weighted by the positive or negative value associated with these beliefs.<sup>18</sup> While each individual forms attitudes based on his or her own beliefs, Ajzen and Fishbein assert that a set of salient beliefs common to a given population can be identified.<sup>19</sup>

In an earlier publication, present author CPC described three studies that explored viewer attention to TV health news.<sup>20</sup> In the first study, interviews and focus groups were used to identify 39 story attributes that may have influenced viewers' attitudes about watching TV health news segments. In the second study, a survey was used to quantify how these beliefs would affect viewers' attention to a TV news story. Finally, the third study employed an experimental design and used regression analysis to pinpoint the expectancy-value judgments that are the most

potent determinants of viewer interest in TV health news stories.<sup>21</sup>

The present report presents data from the second study.

**Sample.** *Airport patrons.* The investigator, present author CPC, recruited 248 respondents at the Baltimore-Washington International Airport in March 1998. The inclusion criteria were: being at least 18 years old and residing in the United States. The study form advised participants that completing the survey implied consent.

The airport sample included participants from 36 US states and the District of Columbia, ranging in age from 18 to 81 years (median = 40 years). Just under half (49%) of the respondents were male. The vast majority (71%) of respondents viewed themselves as "middle income;" only 9% identified themselves as "low income," and the remainder (20%) considered them-

*d) Jurors were never pressured to participate in the study.*

This rule was added to alleviate concerns that jurors who felt they were being harassed would besiege the jury commissioner with complaints.

During the 30 working days in 1998 in which we conducted the study, we collected usable data from 458 jurors. The sample captured a fairly wide cross-section of the community, but reflected the self-selection biases that characterize all voluntary studies. Study participants were older, better educated, and more likely to be female than the general population of the city (data available on request). It could be argued that these sampling biases actually reflect the demographic characteristics of the jury pool. While the courts may randomly select jurors from a relatively exhaustive inventory of residents, a number of other processes intercede before certain individuals report for jury duty. For example, members of some demographic groups may be more transient and harder to locate, and some segments of society may be more likely than others to disregard jury summonses. These "hard-to-reach" populations are difficult to enroll in research regardless of the sampling strategy employed.

Based on our experience, the jury pool population seems best suited for studies that require only one contact with participants, take less than 30 minutes

of participants' time, address no sensitive issues, and involve no risk. Researchers should expect that court officials will be extremely vigilant in identifying material that could potentially bias jurors for or against defendants and may require that interventions or instruments be altered.

Initially, we were reluctant to approach the jury system because we assumed that there were rules against enrolling jurors in research or that the bureaucracy involved in getting approval would be an insurmountable obstacle. Both of these assumptions proved to be false. Court officials, like public health professionals, are public servants and committed to safeguarding the interests of the American people. In this case, the court system eagerly supported a study they saw as potentially benefiting the public. The court and the jury selection process appear to have suffered no adverse consequences; no complaints about the study were lodged by judges, courthouse staff, or jurors.

We found the organizational structure of the jury system surprisingly uncomplicated. In this instance, there were only three key gatekeepers: the jury commissioner, the jury judge, and the administrative judge.

Considerable public resources are required to maintain America's jury system. By hosting research, the jury system doubles the benefit of this expenditure.

selves "high income." More than half (55%) of the respondents were married. Fifty-nine percent of the sample said they had graduated from college, with 28% holding advanced degrees.

*Audience at public health symposium.* The second sample consisted of 209 people attending a three-hour public health symposium hosted by Johns Hopkins University in April 1998. The symposium explored the evolution of the Surgeon General's Office; speakers included nine former Surgeons General and the current Surgeon General, David Satcher. Study participants were recruited while they were waiting to be seated and were advised that completing the survey implied consent. The respondents ranged in age from 18 to 63 (median = 27 years). The majority of the symposium sample were public health graduate students; 86% of the sample reported being enrolled in school either on a full-time or part-time basis. Respondents were highly educated: 96% had earned a college degree, and 69% a graduate degree. Thirty-eight respondents (18%) reported that they were physicians. Respondents were predominantly female (67%) and unmarried (73%).

*Jury pool.* In June and July 1998, 458 respondents were recruited from the jury pool of the Circuit Court for Baltimore City. Jurors signed consent forms prior to participating in the study. The ages of participating jurors ranged from 20 to 76, with a median of 45 years. Sixty-five percent of the sample was female. Thirteen percent of the sample classified themselves as "low income," 14% considered themselves to be "high income," and the remainder (73%) reported that they had a "middle income." Roughly half were married (48%), and slightly more than half had completed college (53%). (See "The Jury Pool: An Untapped Source of Research Participants," pp. 332-333.)

**Measures.** In the earlier study, author CPC used in-depth interviews and focus groups to investigate how viewer attention to TV news stories is determined.<sup>20</sup> Three primary dimensions were identified: personal salience, news value, and journalistic practices. Quotes and transcripts were used to generate a list of 39 attributes distributed across the three dimensions (for example, "giving me useful information," "reporting new information," "making something more important than it really is").

A survey instrument was designed to assess the relative importance of the 39 attributes in determining

viewer interest in TV health news. The questionnaire asked respondents to indicate how each item "would affect your attention to a TV news story about a HEALTH or SAFETY issue." Respondents in the airport and symposium samples rated each item using a 5-point scale:

I would definitely pay less attention.	I would probably pay less attention.	I am not sure.	I would probably pay more attention.	I would definitely pay more attention.
-2	-1	0	1	2

This behaviorally oriented response scale was modeled after one used by Bagozzi in an expectancy-value analysis of attitudes toward the act of donating blood.<sup>22</sup>

The jury pool sample completed an abbreviated version of the original survey consisting of the 22 items that had been ranked as the most salient by the airport sample plus two exploratory items: "showing dramatic pictures" and "presenting the story in a sensational way." In addition, the middle category of the response scale was changed from "I am not sure" to "It would not affect my attention." This change was made based on verbal feedback from the previous two samples.

A special effort was made to format the self-administered questionnaire in a way that would be comprehensible to all respondents regardless of their level of education. The Flesch-Kincaid formula<sup>23</sup> rated the 39-item questionnaire as written at the 5.8 grade level and the 24-item version as written at the 6.2 grade level.

## METHODS AND RESULTS

For each of the three samples, we calculated a mean rating for each questionnaire item. We examined the frequency distribution for each item to verify unimodality and ran one-sample *t* tests to determine whether the mean scores truly differed from zero. We then ordered items by their mean scores and used Spearman rank correlations to compare the item rankings assigned by the three samples.

The mean item ratings ranged from 1.60 to -1.11 for the airport sample, 1.60 to -1.05 for the symposium sample, and 1.71 to -1.16 for the jury pool sample (Table 1). We found the frequency distributions of all items to be unimodal. Thus, positive means indicate that an attribute generally enhanced attention, and negative means that an attribute generally discouraged attention. *T* tests indicated that five items did not differ

Table 1. Mean ratings, by sample, for 39 attributes of TV news stories

Attribute	Sample		
	Airport n = 248	Public health symposium n = 209	Jury pool n = 458
Being important to me personally	1.60	1.57	1.71
Affecting someone that I care about	1.53	1.43	1.56
Relating to my job or interests	1.49	1.60	1.68
Affecting me now	1.47	1.33	1.52
Mentioning a place that I go	1.44	1.38	1.54
Mentioning someone that I know	1.42	1.43	1.71
Affecting me in the future	1.28	1.10	1.17
Reporting new information	1.25	1.25	1.26
Telling me how I can improve my health	1.23	1.00	1.36
Surprising or shocking me	1.20	1.23	1.30
Giving me useful information	1.20	1.18	1.24
Being about people like me or my family	1.16	0.91	1.17
Affecting people in my community	1.15	1.11	1.16
Being about something unusual	1.11	1.00	1.06
Being entertaining	1.09	0.94	1.03
Affecting many people	0.99	0.86	0.84
Reminding me of something pleasant	0.96	0.74	0.59
Being controversial	0.95	1.04	1.01
Showing a news reporter that I like	0.77	0.62	—
Including music that I like	0.74	0.41	—
Being about something that scares me	0.69	0.82	—
Involving a celebrity that I like	0.67	0.40	—
Telling me the opposite of what I heard before	0.66	0.80	—
Being about a common problem	0.64	0.52	—
Including an interview with an expert	0.64	0.60	—
Telling me something that I could tell someone else	0.57	0.50	—
Being about something that other people will talk about	0.55	0.33	—
Telling me about the experiences of a regular person	0.45	0.16	—
Being action packed	0.40	-0.04*	—
Showing dramatic pictures	0.31	0.21	0.65
Presenting the topic in a sensational way	0.27	0*	0.49
Involving scandal	-0.05*	0.02*	—
Showing a bloody or injured person	-0.16	0.06*	—
Reminding me of something unpleasant	-0.23	-0.10*	—
Showing a news reporter that I do not like	-0.65	-0.61	—
Telling me information that I already know	-0.80	-0.87	-0.51
Making an issue more important than it really is	-0.82	-0.83	-0.84
Trying to sell me something	-0.87	-1.02	-0.59
Seeming fake	-1.11	-1.05	-1.16

\*Mean score not significantly different from zero ( $P > 0.05$ )

## The challenge that confronts health advocates is framing news stories to appeal to both media gatekeepers and the public.

significantly from zero in at least one sample; thus these attributes did not substantially affect attention. These five items were “being action packed,” “presenting the topic in a sensational way,” “involving scandal,” “showing a bloody or injured person,” and “reminding me of something unpleasant.”

**Rankings of 39 items.** For the airport and symposium samples, we ranked the 39 story attributes by their means and compared them using a Spearman rank correlation. We found a 0.98 correlation ( $P < 0.001$ ) between the ranks assigned by the two samples.

**Rankings of 24 items.** Since study participants from the jury pool completed an abbreviated survey, we eliminated the extra 15 items from the airport and symposium data and performed a matched comparison of rankings of the remaining 24 items. Table 2 shows the rankings, by mean ratings, for the three samples. We compared these rankings using Spearman rank correlations and found a 0.97 correlation between rankings for the jury pool and airport samples, a 0.96 correlation between rankings for the jury pool and symposium samples, and a 0.94 correlation between rankings for the airport and symposium samples. All of these correlations were significant at the 0.001 level.

### DISCUSSION

The results of this study suggest that adult viewers, regardless of their health knowledge, value the same elements of TV health news stories. The three samples ranked the story attributes in a remarkably similar manner. This result is consistent with Wulfemeyer's findings of a high degree of homogeneity in the topical interests and content preferences of local TV news viewers.<sup>24</sup>

In general, viewers responded positively to many of the traditional newsworthiness criteria used by journalists such as “reporting new information,” “being about something unusual,” and “being entertaining.”

However, the more sensational elements of news value such as “showing a bloody or injured person,” “being action packed,” and “involving scandal” did not substantially influence participants' interest. This finding suggests that viewers—or at least well-educated middle- to high-income viewers—may use somewhat different criteria to evaluate health stories from those they apply to other categories of news. Industry case studies suggest that the survival of local TV news programs is dependent on hyping headline news: in several markets, newscasts that decreased the sensationalism of their coverage suffered devastating declines in their market share.<sup>25</sup>

The top-ranked attributes generally revolved around the common theme of personal salience. Viewers were most attracted to news stories that touched their lives. This finding was not unexpected; the power of personal salience to capture the attention of news viewers is well documented in the communication literature.<sup>12,26,27</sup> Thus, this study suggests that emphasizing the relevance of a health topic to viewers may be an effective strategy to capture their interest.

Stories about more novel, less prevalent health problems frequently receive more media attention than topics of common concern. As a result, a wide discrepancy often exists between the amount of news coverage that a problem receives and its public health significance.<sup>28–31</sup> The findings of the current study provide a compelling case for remedying this imbalance. Covering prevalent problems and those associated with high mortality levels guarantees that stories will be personally salient to many viewers and attract their attention.

While the generalizability of our findings is strengthened by the similarity in results across samples, it should be noted that all three groups were better educated and had higher incomes than the general population. In addition, the two lay samples (jurors and airport patrons) may have included an overrepresentation of individuals who were highly interested in health and

## Viewers will purposefully tune in to a news program to see a story about a health topic that interests them.

medical issues, as a result of convenience sampling. Thus, the lay and health-knowledgeable samples may be less distinct than they appear on the surface. A definitive test of the generalizability of our findings would involve a randomly selected national sample.

In summary, the results of this study suggest that personal relevance, not sensation, drives viewer interest in health stories. Thus, the "If It Bleeds, It Leads" approach does not seem to apply in the case of health news. The challenge that confronts health advocates

**Table 2. Rankings, by sample, of 24 attributes of TV news stories**

Attribute	Sample		
	Airport n = 248	Public health symposium n = 209	Jury pool n = 458
Being important to me personally	1	2	1.5
Affecting someone that I care about	2	3.5	4
Relating to my job or interests	3	1	3
Affecting me now	4	6	6
Mentioning a place that I go	5	5	5
Mentioning someone that I know	6	3.5	1.5
Affecting me in the future	7	11	11.5
Reporting new information	8	7	9
Telling me how I can improve my health	9	13.5	7
Surprising or shocking me	10.5	8	8
Giving me useful information	10.5	9	10
Being about people like me or my family	12	16	11.5
Affecting people in my community	13	10	13
Being about something unusual	14	13.5	14
Being entertaining	15	15	15
Affecting many people	16	17	17
Reminding me of something pleasant	17	18	19
Being controversial	18	12	16
Showing dramatic pictures	19	19	18
Presenting the topic in a sensational way	20	20	20
Telling me information that I already know	21	22	21
Making an issue more important than it really is	22	21	23
Trying to sell me something	23	23	22
Seeming fake	24	24	24

is framing news stories to appeal to both media gatekeepers and the public. If a story is ignored by the news media, its appeal to the public is moot. However, pandering to sensationalism seems to be equally misguided if educating the public is the ultimate goal.

This study was reviewed and approved by the Committee on Human Research of Johns Hopkins School of Hygiene and Public Health. The authors thank Jennifer Alcox, Judge Edward J. Angletti, JD, Linda Collins, Jay Huber, Judge Joseph Kaplan, JD, Renee Larkins, Bonnie Raynor, Melissa Spearing, MHS, and Marilyn L. Tokarski for their support of this project. The study was supported in part by a training grant (5 T32HL07180) from the National Heart, Lung, and Blood Institute.

## References

- Gans HJ. Deciding what's news: a study of CBS Evening News, NBC Nightly News, Newsweek, and Time. New York: Vintage Books; 1980.
- Garrison B. Professional news writing. Hillsdale (NJ): Lawrence Erlbaum Associates; 1990.
- Greenberg M, Wartenberg D. How epidemiologists can improve network news coverage of disease cluster reports. *Epidemiology* 1990;1:167-70.
- Galtung J, Ruge M. Structuring and selecting news. In: Stanley C, Young J, editors. The manufacture of news. Beverly Hills (CA): Sage; 1973. p. 62-72.
- Meyer P. News media responsiveness to public health. In: Atkin C, Wallack L, editors. Mass communication and public health: complexities and conflicts. Newbury Park (CA): Sage; 1990. p. 52-9.
- Wallack L, Dorfman L, Jernigan D, Themba M. Media advocacy and public health: power for prevention. Newbury Park (CA): Sage; 1993.
- Entwistle V. Reporting research in medical journal and newspapers. *BMJ* 1995;310:920-23.
- Greenberg M, Wartenberg D. Understanding mass media coverage of disease clusters. *Am J Epidemiol* 1990;132:S192-5.
- Wilson CE. The effect of medium on loss of information. *Journalism Q* 1974;51:111-15.
- Katz E, Adoni H, Parness P. Remembering the news: what the picture adds to recall. *Journalism Q* 1977;54:231-9.
- Neuman WR. Patterns of recall among television news viewers. *Public Opinion Q* 1976;40:115-23.
- Stauffer J, Frost R, Rybolt W. The attention factor in recalling network television news. *J Communication* 1983;33:29-37.
- Freimuth VS, Stein JA, Kean TJ. Searching for health information: the cancer information service model. Philadelphia (PA): University of Pennsylvania Press; 1989.
- Besaw L. Friend or foe? News media have tremendous impact on the medical profession. *Texas Medicine*. 1996;92:48-51.
- Johnson T. Shattuck lecture—medicine and the media. *New Engl J Med* 1998;339:87-92.
- Atkin C, Arkin EB. Issues and initiatives in communicating health information to the public. In: Atkin C, Wallack L, editors. Mass communication and public health: complexities and conflicts. Newbury Park (CA): Sage; 1990. p. 13-39.
- Loudis S. Health stories prominent in latest sweeps schedule. *Miami Herald* 1995 May 27;Sect. 1:G.
- Fishbein M, Ajzen I. Determinants of the attitudinal and normative components. In: Fishbein M, Ajzen I, editors. Belief, attitude, intention, and behavior: an introduction to theory and research. Reading (MA): Addison-Wesley; 1975.
- Ajzen I, Fishbein M. Understanding attitudes and predicting social behavior. Englewood Cliffs (NJ): Prentice-Hall; 1980. p. 62-77.
- Cooper CP. Health links between prime-time tv and the eleven o'clock news: an experimental study of viewer reactions [dissertation]. Baltimore (MD): Johns Hopkins University; 1999.
- Cooper CP, Burgoon M, Roter DL. An expectancy-value analysis of viewer interest in television prevention news stories. *Health Commun*. In press 2000.
- Bagozzi RP. An examination of the validity of two models of attitude. *Multivariate Behav Res* 1981;1:323-59.
- Kincaid JP, Aagard JA, O'Hara JW, Cottrell KK. Computer readability editing system. *IEEE Transactions on Professional Communication* 1981;24:38-41.
- Wulfemeyer TK. The interests and preferences of audience for local television news. *Journalism Q* 1983;60:323-8.
- Winerip M. Looking for an 11 o'clock fix. *New York Times Magazine* 1998 Jan 11;30:40,50,54,62-3.
- Booth A. The recall of news items. *Public Opinion Q* 1970-71;34:604-10.
- Graber D. Processing the news: how people tame the information tide. White Plains (NY): Longman; 1988.
- Pichert JW, Hanson SL. Arthritis in the national TV news: 1971-1981. *J Rheumatol* 1983;10:323-5.
- Combs B, Slovic P. Newspaper coverage of causes of death. *Journalism Q* 1979;56:837-43, 849.
- Frost K, Frank E, Maibach E. Relative risk in the news media: a quantification of misrepresentation. *Am J Public Health* 1997;87:842-5.
- Kristiansen CM. Newspaper coverage of disease and actual mortality statistics. *Eur J Social Psychol* 1983;13:193-4.
- Taylor v. Louisiana, 419 U.S. 522 (1975).
- Lynch CF, Logsdon-Sackett N, Edwards SL, Cantor KP. The driver's license list as a population-based sampling frame in Iowa. *Am J Public Health* 1994;84:469-72.
- Buller DB, Callister MA, Reichert T. Skin cancer prevention by parents of young children: health information sources, skin cancer knowledge, and sun-protection practices. *Oncol Nurs Forum* 1995;22:1559-66.
- Saub EJ, Shapiro J, Radecki S. Do patients want to talk to their physicians about organ donation? attitudes and knowledge about organ donation: a study of Orange County, California residents. *J Community Health* 1998;23:407-17. ■