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Health Content in Local Television News

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Local television news is an important source of health information for the public. Yet little is known about coverage of health issues on local television newscasts. This study examined 1,863 news stories that aired on 4 English-language channels and 1 Spanish channel in 7 U.S. markets during a composite week in 2000. About 10% of news stories focused on health topics. Specific illnesses/diseases and healthy living issues received the most frequent coverage. Health news stories generally were less than 1 min long. Most health news stories were neutral in tone. Few offered contrasting viewpoints or follow-up information. Many stories were likely to require a 10th grade education to be understood. Implications for health professionals, policy makers, and health communication researchers are discussed.

Research has established that television provides the public with important information about health-related issues, can effectively increase public awareness about health, and has a significant influence on people's thinking and decision-making about health (AbuSabha, 1998; Mebane, 2003; Stuart & Achterberg, 1997). In particular, it can set agenda for health issues in audiences, cultivate viewers' understanding of health issues, and change viewers' health related behaviors. Therefore, it is important that health professionals and health information providers understand the extent and nature of health information available to the public on television, as it directly affects their outreach efforts as well as their daily interactions with individual patients and their families. It is also important for health policy makers to understand this picture because it directly affects how the public receives and understands health law and policy issues. Local television news represents an important channel for the dissemination of health information. Yet there is little research on health content featured in local television news. This study is designed to fill that information gap by examining health content in local television news in light of well established mass

communication theories of agenda setting, cultivation, and social learning.

TELEVISION NEWS IS AN IMPORTANT SOURCE OF HEALTH INFORMATION

Public opinion polls point to the importance of television as a source of health information. A survey conducted by the Pew Research Center in 2002 showed that 71% of American adults closely follow health news (Mebane, 2003). In addition, a report based on 39 surveys conducted by the Kaiser Family Foundation and the Harvard School of Public Health from 1996 through 2002 (which included over 42,000 respondents) found that 4 in 10 adults said they followed health news stories closely (Brodie, Hamel, Altman, Blendon, & Benson, 2003). According to a Gallop survey, when asked "Generally speaking, how much news and information about health or medicine do you get from television?" 23% of those in a national sample of adults chose "great deal"; an additional 41% chose a "moderate amount" (Gallup Organization, 2002). In this regard, television fared better than any other mass medium and approached results for one's doctor and nurse. The importance of television as a source of health information is echoed in the Health News Index Poll conducted by the

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Kaiser Family Foundation and the Harvard School of Public Health (2002). Responding to the question “Which one of the following has been your most important source of news and information about health issues?” 49% of those in the study’s national sample said “television.” No other source of information approached television.

More Americans claim to get their news from local television broadcasts than from any other source (Radio-Television News Directors Association (RTNDA), 1998). A majority (56%) of American adults say they get “a lot” or “some” information about health issues from local television news (Kaiser Family Foundation & Harvard School of Public Health, 2002). About 60% believe that the media do a good job of informing them about what they need to know about health (Kaiser Family Foundation & Center for Media and Public Affairs, 1998). If anything, Americans seem to want more rather than less health news (Potter & Gantz, 2004).

COGNITIVE AND BEHAVIORAL IMPACT OF HEALTH NEWS

How viewers are impacted by health information in local television news can be understood through the lenses of three established communication theories: agenda setting, which posits that health newscasts can impact viewers’ health agendas by influencing the health issues that viewers *think about*; cultivation, which argues that newscasts help *shape* viewers’ understanding of the reality of health issues; and social learning, which notes that healthy—or unhealthy—*behaviors* are facilitated by health news coverage.

Agenda Setting

News is not a mirror reflection of reality. Instead, it represents a set of stories “constructed by journalists about the events of the day” (McCombs, 1994, p.11). Agenda-setting theory argues that the press shapes the public’s view of how important a given issue is by the amount of coverage it receives and the location of that coverage compared to other news items (McCombs & Shaw, 1972). This is supported by health communication literature. A recent study found that mass-mediated information on breast cancer screening could affect the health agendas of middle-aged women (Ogata Jones, Denham, & Springston, 2006). By increasing the salience of health issues in the public agenda, the mass media also may stimulate people to search for health information beyond their doctors (Dutta-Bergman, 2005; Pratt, Ha, & Pratt, 2002). For example, a time series analysis found that electronic bulletin board users would put health topics on their discussion agendas after being informed about the topics through traditional media outlets (Roberts, Wanta, & Dzwo, 2002).

Cultivation

If agenda setting points out that news coverage influences *which* health issues to think about among viewers, then cultivation theory posits that, in long run, health news coverage shapes *how* audiences think about those issues. Initially proposed by Gerbner and his colleagues (Gerbner, 1969; Gerbner, Gross, Morgan, & Signorielli, 1994), the theory states that repeated exposure over time to similar content (especially on television) shapes our view of the world. Our understanding of health issues and approach to them are a reflection of information from many resources, including television. A number of scholars (e.g., Dittmar, 1994; Hammermeister, Brock, Winterstein, & Page, 2005; McCreary & Sadaca, 1999) have documented that individuals who watch different amounts of television exhibit different psychosocial health characteristics, including weight satisfaction and psychological depression. Although it is true that television viewing itself may displace other activities and thus affect the viewer’s psychosocial characteristics, health information conveyed through television can “cultivate” the viewer’s health knowledge and beliefs, and thus shape the viewer’s psychosocial characteristics.

Social Learning

Social learning theorizes direct *behavioral* effects. Stated simply, it posits that behaviors can be learned by observing others performing the behavior, either in face-to-face or mediated contexts (Bandura, 1977, 1986, 2001). Widely used in health communication research (e.g., Dilorio et al., 2000; Hawkins & Hane, 2000), the theory suggests that local television health news can maximize the adoption of health behaviors by raising viewers’ attention and recall of important health issues and by increasing viewers’ confidence that they can, indeed, engage in healthy behaviors. One strategy to heighten attention and information retention is to expose viewers to health news stories as much as possible. Beyond this, however, health news stories need to increase viewer self-efficacy and outcome expectancies. When a viewer feels more confident about adopting a health behavior or sees positive outcomes of the behavior, the viewer is more likely to adopt the behavior (Dilorio et al., 2000). That being said, another strategy the local television news may employ is to include positive and encouraging health stories.

ANALYSIS OF HEALTH CONTENT IN TELEVISION NEWS

Although agenda setting, cultivation, and social learning elucidate the potential of local television news to shape health behaviors, the next concern naturally is: What health content is provided in local television news? Although they

do not directly deal with local television news, a number of analyses of television content included coverage of health (e.g., Breed & De Foe, 1981; Gantz & Schwartz, 2002; Kaufman, 1980; Madden & Brube, 1994). A small number of studies have examined health information in national news programs or news-type programs on broadcast and cable television (e.g., Corbett & Mori, 1999a, 1999b; Hertog, Finnegan, & Kahn, 1994; Keenan, AbuSabha, & Robinson, 2001; Schwartz & Woloshin, 2002). However, most of these studies focused on specific health topics such as cancer and AIDS/HIV. Although these studies offer valuable information about how specific health topics were covered in television newscasts, they do not provide a big picture of various topics of health content in television news. In addition, one limitation associated with many of the television news analyses is their reliance on databases of summaries of news. For example, Corbett and Mori (1999a, 1999b) and Hertog et al. (1994) relied on the *Vanderbilt Television Archives*; Keenan et al. (2001) relied on *Journal Graphics*. However valuable, these databases provide abstracts and limit inquiries to preestablished topic codes (Althaus, Edy, & Phalen, 2002).

One systematic analysis of the coverage of health content in local newscasts was conducted by the Kaiser Family Foundation and the Center for Media and Public Affairs (1998), which looked at 608 hr of local weekday evening news in 1996 from 13 cities across the country. Health was the fifth most common local news topic, accounting for 7% of the 17,074 news stories examined and was listed behind crime (20%), weather (11%), accidents and disasters (9%), and human interest (7%). The study revealed that in a typical 30-min local newscast, health coverage lasted about 2 min, whereas commercials (8 min), crime (4 min), sports (4 min), and weather (3 min) used up nearly two thirds of the airtime. The Kaiser study also found that among health stories covered in local news programs, 60% focused on causes and treatments for disease, with food-borne illnesses (15% of the disease stories) and cancer (12% of the disease stories) receiving the heaviest coverage. The second most common topic of health stories was environmental and lifestyle health issues such as diet and fitness (21%), followed by health care industry and health insurance (5%), legal health stories (4%), HIV/AIDS (3%), and reproductive health and abortion issues (2%). Unfortunately, the Kaiser study did not examine morning, midday, or late evening newscasts or any newscasts on weekends. Although there are redundancies across newscasts on any single day, morning and midday newscasts may provide more of an opportunity to cover health news than early evening newscasts, as the earlier newscasts tend to be lengthy and not as bound to covering the day's breaking events. Similarly, weekend newscasts generally feature softer news, including health. In all, Kaiser's study may underrepresent actual newscast coverage of health.

ISSUES ASSOCIATED WITH TELEVISION NEWS ON HEALTH

For health practitioners and scholars, a large range of coverage issues is worth considering. The following questions are of special importance, from the perspectives of agenda setting, cultivation, and social cognitive theory.

Amount of Time Devoted to Health News Stories

Here, *time* refers to the total time given to health news as well as the duration of each health news story. Setting agendas and cultivating understanding of a given health issue are likely to require lengthy news stories and repeated exposure to those stories. However, health is one of many beats covered in local newscasts, so health is not likely to receive a large slice of news time. In addition, as is the case with other news topics, health news stories are likely to be brief. Roughly 70% of stories in local newscasts are less than 1 min long (Project for Excellence in Journalism, 2004). It may be no better for health. More than two thirds of the health news stories aired in the Minneapolis-St. Paul area lasted less than a minute; more than half were 30 sec or less (Schwitzer, 2004). Yet, because of the complexity and technical nature of many health news stories, health news may need more time than other topics to be truly valuable to viewers.

Location of Health News Stories

The location of any news story within a newscast points to its importance in the eyes of those creating the newscast and plays a role in agenda setting. Generally, news stories are arranged "more or less in order of importance" (Yorke, 2000, p.160). Viewers are likely to know this, with attention waning as the newscast progresses, at least within broad segments (i.e., news, weather, sports). Important health news stories may merit placement early in a newscast and, as a consequence, may exert greater influence on viewers' health agendas. News programs with their own health segments should make it easier for audiences to attend to health information. These segments represent a promise to viewers: there will be a health segment at this time, every day, on this channel. Such regularity may facilitate agenda setting, cultivation, and observational learning by increasing exposure and attention to health news.

Health Topics Covered

Because they represent "news," breakthroughs in the health arena are likely to get a substantial amount of the coverage devoted to health stories. Yet viewers want a broader array of health topics addressed, including coverage of good and bad doctors, as well as health insurance and nursing homes (Potter & Gantz, 2004). A recent content analysis on local health news also points out that topics such as health

policy receive very little coverage (Schwitzer, 2004). Here, it appears that the public's agenda and the news media's agenda are not in sync.

Tone

One longstanding criticism of local television newscasts is that they are permeated with negative news (Project for Excellence in Journalism, 2004). The tone of health news stories may be particularly meaningful for those who fear visiting a doctor as well as for patients with serious illnesses who are trying to obtain a balance between information search and avoidance (Berger, 2002; Brashers, Goldsmith, & Hsieh, 2002). Indeed, the mass media have been criticized for conveying negative—and sensationalized—health content that discourages patients from seeking information (Rees & Bath, 2000). On the other hand, many health news stories are about advances in the field, giving hope to those with specific health concerns. As implied from the observational learning process of social learning theory, positive models and successful outcomes presented in health news stories may increase viewers' self-efficiency and increase the possibility of viewers carrying out a behavior.

Viewpoints Presented

Journalists strive for fair and balanced coverage. Yet one-sided coverage of controversial issues is a hallmark of many newscasts (Project for Excellence in Journalism, 2004). Schwitzer (2004) described the complex web of vested interests in the health industry (e.g., government health spokespeople, researchers, drug companies, device manufacturers, and insurers) and argued that multiple sources are imperative for health news. If the health news coverage is unbalanced or biased, then the cultivation function of mass media will potentially hamper, instead of promote, correct knowledge and understanding of health issues.

Follow-Up Information

Health news stories are likely to be quite brief, providing only a glimpse of the issue at hand. One way to counter this is to provide follow-up information for viewers, which is suggested in the literature to have great significance to viewers (Johnson, 1997; Johnson & Meischke, 1993). The aforementioned time series analysis of the agenda-setting function of traditional media on online discussion also illustrated the importance of follow-up options (Roberts et al, 2002). The study found that significant media coverage of health care issues motivated audiences to discuss the issues online. In this sense, local television newscasts may affect the public health agenda not only by being aired but also through stimulating postviewing information seeking.

Accessibility

Because news stories on television are short and transitory, it is particularly important that they be easy for viewers to understand. If the health news coverage is not understood, it can hardly help with appropriate agenda setting, cultivation, and social learning of health issues. The problem is that medical news can be quite complex and technical, one reason why it is difficult to successfully disseminate health information through the news media. Using the Simple Measure of Gobbledygook (SMOG) readability formula, Friedman and Hoffman-Goetz (2003) found that 12.5 years of education was needed to comprehend cancer articles in North American seniors' publications. However, the authors argued that 55% of participants in their study could read no more than seventh grade material. Kirksey, Harper, Thompson, and Pringle (2004) found that literature prepared by pharmaceutical corporations informing patients about the side effects and complications associated with medications had a mean SMOG score of 12, too difficult for most Americans to comprehend.

RESEARCH QUESTIONS

This study was designed to address the issues raised in the preceding section of this article and was guided by the following seven research questions:

- RQ1: How many stories and how much time is devoted to health related news? How long does a health news story generally last?
- RQ2: Where are health related stories located in television newscasts? (e.g., Are they among the lead stories, or embedded in regularly scheduled health segments?)
- RQ3: What are the specific health topics that get coverage?
- RQ4: What is the overall tone for these news stories? (e.g., Are the stories generally positive, with a focus on new or more successful treatments; generally negative, with a focus on the difficulty associated with avoiding or surviving illness; mixed, with both negative and positive emotions; or neutral, only objectively presenting the figures and facts?)
- RQ5: To what extent are varying viewpoints presented? (e.g., do stories present contrasting prevention or treatment strategies?)
- RQ6: How often do these news stories provide information that identifies where viewers can go for more information about health in general or about a specific health issue covered by the story? What options are offered? (e.g., How often do the stories contain toll-free 800 numbers or Web sites for cancer organizations?)
- RQ7: How accessible are health related stories for the general viewing public?

METHOD

Sampling

This study sampled 1 composite week of local television news from five channels using a massive video dataset (1,780 hr of programming) recorded by Gantz and Schwartz (2002). The five channels included affiliates for four major English-language broadcast networks (ABC, CBS, Fox, and NBC) and the highest rated Spanish-language broadcast network (Univision) at that time. The channels were taped in seven major markets—all among the top 20 designated market areas across the country—to take into account geographic and ethnographic differences that may exist. The markets were: Atlanta, Chicago, Dallas, Denver, Los Angeles, New York, and Seattle. For the four English channels, there were affiliates located in all seven markets. For Univision, Seattle and Atlanta had no affiliates.

A composite week, rather than a single calendar week, of newscasts was used to minimize the potential impact of seasonal variability, sweeps period programming activities, special programs and investigative reports, and unanticipated major events. The composite week consisted of a randomly selected Sunday, Monday, Tuesday, and so on between March and May, 2000. On each of those days, each station's early morning, noon, early evening, and late evening newscasts were examined.

Coders did not examine the weather, sports, or traffic segments in these newscasts. However, they did code weather, sports, and traffic stories when they appeared outside their normal segments.

Units of Analysis and Measures

The primary unit of analysis is the news story. For this study, a news story is defined as a discrete report presented by a news anchor or reporter, in or out of the studio, that covers an event. Health news stories were those news stories that covered any of the following seven broad topics: general illness and specific diseases, mental health, parents and children, aging, health/living, environmental factors, and other health related issues such as health technology and health insurance. A news story was coded as a health news story only if the news story *focused* on that topic. Each health news story was coded along the following lines: the length (in seconds), the location in the newscast, the specific health topics covered, the overall tone, viewpoints presented, follow-up options provided, and accessibility (using SMOG)¹.

Coders, Training, and Intercoder Reliability

Three graduate students (one of them is bilingual in English and Spanish) served as coders. The bilingual coder also

served as a transcriber for the Spanish local news so as to help the other two coders with the Spanish news stories. Coders viewed the actual newscasts. This was one of the most important advances of this study compared to previous content analyses that used only transcripts. Coders participated in two 4-hr training sessions and then independently coded 16 health news stories selected from the sample. Intercoder reliability was calculated using Cohen's kappa and percentage of agreement.

Cohen's kappa is based on a square matrix and requires both coders to use the same range of values for each coding item. Hence, when coders used different ranges of values, it could not be calculated. In addition, it could not be calculated if all coders used the same single value for the coding item. In those cases, percentage of agreement was used in place of kappa. The intercoder reliability for coding items was: health topic (85% agreement), tone ($\kappa = .605, p < .001$), and viewpoint ($\kappa = .705, p < .05$). Length of newscast and health news story, existence of any follow-up information, the type of follow-up options, number of polysyllabic words, and number of sentences achieved 100% agreement.

RESULTS

Distribution of Health Content in Local News

A total of 96 newscasts from five channels in seven markets were coded, with 87 from four English channels and nine from Univision (see Table 1). In all, these newscasts were 67.5 hr long and included 1,863 news stories. English-language newscasts lasted 62.5 hours and included 1,742 news stories. Univision newscasts were 5 hours long and included 121 news stories.

A total of 3 hr and 8 min of news stories was devoted to health content. Of the 1,863 news stories counted, 189 (10.1%) were about health. Newscasts on the five channels differed in terms of the number of news stories provided, $F(4, 91) = 2.35, p < .10$. The ABC and CBS affiliates featured a greater portion of health news stories (11.8% and 12.3%, respectively) than the other two English-language channels did. Univision had a larger portion of health news stories (18.2%) than any of the English-language channels.

The average health news story lasted 59.7 sec ($SD = 51.96$). About 45% of the stories were less than half a minute; 70% lasted less than 1 min. The shortest story was 11 sec and the longest was 4 min 3 sec. Stories about topics such as new health policies or laws, new health products, and new scientific research findings related to health tended to be brief. News stories that incorporated personal life experiences or local community events (and featured on-location shots or interviews) were likely to be long. For example, a news story about research that linked long work hours with good health lasted only 12 sec. In contrast, a news story on breast cancer that included interviews with cancer survivors ran about 4 min.

¹Details about each coding item are available from the first author.

TABLE 1
Distribution of Health News

	ABC	NBC	CBS	FOX	Univision	English Channel Total	Total
Number of newscasts	26	23	24	14	9	87	96
Time of newscasts (in hours)	15.5	17	17.5	12.5	5	62.5	67.5
Number of news stories	475	438	497	332	121	1742	1863
Number of health news stories	56	32	61	18	22	167	189
Portion of stories devoted to health	11.8%	7.3%	12.3%	5.4%	18.2%	9.6%	10.1%
Time of health news stories (in minutes)	59.45	33.60	57.95	20.43	16.52	171.43	187.95
Number of newscasts having a health segment							
<i>N</i>	10	7	10	3	6	30	36
%	38.5 ^a	30.4	41.7	21.4	66.7	34.5	37.5
Number of health news stories located in a health segment							
<i>N</i>	21	13	34	7	10	75	85
%	37.5 ^b	40.6	55.7	38.9	45.5	44.9	45.0
Number of health news stories as lead stories (i.e., the first 10 min)							
<i>N</i>	21	3	13	2	6	39	45
%	37.5 ^b	9.4	21.3	11.1	27.3	23.4	23.8

^aPortion of the total newscasts of this channel. ^bPortion of the total health news of this channel.

Roughly one in three newscasts (37.5%) had a health segment in the program. Although the range across channels was considerable (66.7% of the newscasts on Univision and 30.4% on NBC affiliates had a health segment), differences across channels here were not significant. The health segment contained 45.0% of the health news coded. Of the health news coded, 23.8% appeared in the first 10 min of the newscasts. The ABC and Univision affiliates, respectively, put 37.5% and 27.3% of their health stories in the first 10 min of their newscasts. Both were considerably higher than the remaining channels ($\chi^2 = 11.42$, $df = 4$, $p < .05$).

Health News Topics

Of the seven overarching categories of health topics, Illness and Diseases received the heaviest coverage, accounting 39.5% of all the health news. Healthy Living was the second most common topic (26.9%), followed by Health Related Issues such as health insurance and health policy (16.8%), Parents and Children (10.1%), Environmental Factors (4.2%), Mental Health (2.1%), and Aging (0.4%).

Cancer was covered in more news stories ($n = 31$) than any other single topic. Other frequently covered specific topics included health policy/law ($n = 19$), prescription medicine ($n = 17$), stomach illness ($n = 14$), health technology/infrastructure ($n = 13$), heart illness ($n = 13$), food and diet ($n = 10$), and children's safety ($n = 10$). Other specific topics that received repeated coverage were exercise and fitness ($n = 7$), health related product recalls and settlements ($n = 7$), and health supplements such as vitamins and estrogen ($n = 6$).

Tone and Viewpoints Presented by Health News

More than half of the 189 health news stories (61.4%) were neutral in tone. About one fourth of the news stories (24.3%) were generally positive, and 11.1% were generally negative. The remaining 3.2% were mixed. This did not vary significantly across networks.

A large majority of the 189 health news stories (83.6%) did not offer contrasting viewpoints. Of the news stories that presented contrasting viewpoints, more than three fourths (13.2% in all news stories) did not come up with a conclusion. Instead, they simply presented contrasting viewpoints. A total of 3.2% of the health stories examined offered contrasting viewpoints as well as a conclusion. Fox affiliates featured the highest portion of health news with contrasting viewpoints (33.3%). Univision featured none. The corresponding proportions for ABC, CBS, and NBC affiliates were 17.9%, 13.1%, and 3.1%, respectively. Differences across channels were statistically significant ($\chi^2 = 29.96$, $df = 12$, $p < .01$).

Follow-Up Information in Health News

Very few news stories (7.9%) offered any follow-up information. The follow-up option most often presented was a Web site URL, featured in 2.6% of the health news stories. Toll-free phone numbers were provided in 2.1% of stories. Other (nontoll-free) numbers were mentioned in 1.6% of the stories, the same proportion that mentioned a corresponding media program. Mail addresses were the least frequently used, appearing only once.

Accessibility of Health News

We coded only English news stories for their SMOG scores. Our results show that, on average, health news stories required at least a 10th-grade education ($M=10.1$, $SD=1.57$) for the audience to understand the content presented. SMOG scores ranged from Grade 6 to as high as Grade 14.

DISCUSSION

Our content analysis revealed that for the five channels coded, one in 10 local news stories focused on health content. This is consistent with findings disclosed by the Kaiser study (Kaiser Family Foundation & Center for Media and Public Affairs, 1998), where health content accounted for 7% of the news stories examined. At least at this gross level of analysis, then, it appears that the ratio of health news to all news stories in local newscasts is not small and is relatively stable. (The jump from Kaiser's 7% to our 10% is likely an artifact of sampling: we excluded the weather, sports, and traffic segments of the newscasts, segments not likely to frequently feature stories about health.) Also consistent with previous research on general local news (Project for Excellence in Journalism, 2004) and local health news (Schwitzer, 2004), our content analysis found that 70% of coded health news stories lasted less than 1 min. Hence, health news, like other news, is short.

The overarching topics of illness/diseases and healthy living received the most frequent coverage. Cancer and health policy/law were the specific topics that appeared most often. Other topics, such as parenting and children's health issues, also were common. This, too, is similar to what was found in Kaiser's content analysis (Kaiser Family Foundation & Center for Media and Public Affairs, 1998). That study found that the majority of the stories focused on the causes and treatments of diseases and environmental and lifestyle health issues.

Our study also found considerable across-station variation in the health topics covered. This is not surprising: Although news outlets often converge on the top hard news stories of the day, softer features are not likely to generate cross-outlet coverage. Save for medical breakthroughs, alarming reports about toxic substances or the incidence of diseases, and carefully choreographed PR featuring well-known celebrities (e.g., Lance Armstrong speaking about cancer), coverage of health issues in any market is likely to be spotty—on one station but not on others. For those documenting media coverage of health, this finding points to the importance of including an array of outlets, be they networks or local stations for television, as was the case here, or, for that matter, Web sites, newspapers, or news magazines.

Our analysis disclosed that a majority of health news stories were generally neutral in tone. Local newscasts

have been criticized for emphasizing negative news stories such as crimes (Gant & Dimmick, 2000), with health news seen as frightening, depressing, and discouraging viewers from information seeking (Rees & Bath, 2000). Our data suggest that those concerns, at least for health news, are not necessarily the case. Instead, most health news stories were neutral and should not depress or discourage viewers from information seeking and intake. As Gerbner and others have argued (Gerbner et al., 1978; Gerbner & Gross, 1980), the television world is a scary, violent place. The television world of health, at least using these newscasts, is not.

Our study documented that the large majority of health news stories did not present contrasting viewpoints. Because this study did not examine the controversial nature of the health topics covered, it is hard to tell whether the stories could have provided contrasting viewpoints.

Consistent with findings in previous studies with print messages, our results show that televised health news stories may be difficult for the majority of the audience to understand. On average, a 10th grade education is required to understand the verbal component of the health news stories we coded. In all likelihood, this is more accessible than the 12-plus grade level of education needed for print vehicles (Friedman & Hoffman-Goetz, 2003; Kirksey et al., 2004). Our one caveat here deals with something we did not measure: the extent to which aural and visual components of the health news stories were redundant. Television's visual dimension may improve comprehension of aural information if the aural and visual channels are redundant. However, if the channels are not redundant—or if the visual is so compelling that it receives the primary attention of the viewer—these stories may be less accessible than the 10th-grade SMOG scores suggest.

As noted previously, this study found that health news stories generally are less than 1 min long. This makes it particularly important for health news stories to offer viewers a way to access the story in a more permanent medium. Follow-up options such as the Internet will give the viewer the time and information needed to digest the story and, as needed, take action. However, our content analysis shows that health news stories rarely provide follow-up information. The 2.6% figure we found in this study is considerably lower than the 40% figure found for print health messages (Friedman & Hoffman-Goetz, 2003). There is an irony here, as noted in the preceding paragraph: Because news stories on television are short and fleeting, they often are more difficult for audiences to grasp, making follow-up information all the more important. In addition, because of the technical nature of health news, it may be impossible to avoid polysyllabic words, such as names of diseases, drugs, and treatment procedures. Hence, follow-up options are especially helpful for health news. One caveat here about the follow up options: Data for this study were collected in 2000. In recent years, a number of stations have set up their own Web sites (Chan-Olmsted & Ha, 2003).

It is possible that local news incorporates more follow-up information than was the case in 2000. With more follow-up options provided for health news stories, local newscasts would provide better service for those in the communities they serve. We certainly hope this is the case.

Our study was designed to help health professionals and practitioners understand the extent and nature of health communication available to the public on local television newscasts, an important source of health news for many Americans. We found that health content was regularly featured on local TV newscasts, averaging nearly three stories for each hour of local news. Frequency, however, was not akin to depth. As is the case with news stories not about health, many health news stories were short, more of a headline or appetizer than a developed story or main course of a meal. Longer stories about health tended to be personalized. On one hand, this may be quite helpful: Personalized stories, seen as relevant to the viewer, are likely to stimulate more involvement and cognitive processing (Celsi & Olson, 1988; Petty & Cacioppo, 1981), and may be especially meaningful for observational learning. Moreover, not brimming with facts, these stories also may be easier for viewers to comprehend. It is quite likely that SMOG scores for those stories were lower (i.e., more accessible) than bare-boned short news stories that highlight medical developments or discoveries. On the other hand, personalized stories may be short on the facts and information the viewer can use, yet another reason for news producers to add follow-up options to their stories.

Health practitioners can take some comfort in knowing that health news is a staple on local television news. Health news may be aired often enough, particularly on stations with health news segments, for viewers to expect—perhaps even turn to the station for—regular updates. Health, in general, is likely to be part of the viewing public's agenda. Yet, because health stories are short and cover an array of topics, health practitioners cannot count on television news as a primary vehicle for information about their particular health concern or as a vehicle that dramatically raises the saliency of the health concern among the public. Instead, all health practitioners can reasonably expect is episodic and generally abbreviated coverage. For more concentrated coverage, health practitioners will have to utilize outlets they have used in the past, including paid ads that, while short, can set an agenda and steer viewers to interactive sources of information.

This study is among the first to systematically examine the extent and nature of health content covered in local television news. By examining a broad range of health topics, the study provides a more comprehensive assessment of health content in local television news than earlier efforts. Similarly, because it included newscasts airing throughout the day (compared to studies that focused on newscasts airing at a specific time slot), it offers a more accurate picture of health coverage on local television newscasts.

Finally, in coding taped newscasts rather than relying on transcripts or archived abstracts, our study was able to include more variables than those previous studies had examined. However, several limitations also are worth noting. First, the newscasts examined are now 7 years old. Although we have no reason to believe current newscasts focus on a different set of health issues, they may devote more time to health than we found. Because television news viewers tend to be older than the population at large, they may be more interested in stories about health. As a result, news directors may have increased newscast time devoted to health news. Second, as noted earlier, newscasts may include more follow-up information than we found. Because most local stations now have Web sites, it would be easy for reporters and anchors to direct viewers to their station's Web site for additional information about health coverage, particularly coverage generated at the local level. Third, we recognize the shortcoming associated with applying a text-based measure of accessibility (SMOG) to a medium where content is presented aurally and visually. Research is needed to develop appropriate, reliable measures of the accessibility of information presented on television. Finally, our study examined local newscasts in seven major markets. Although we feel comfortable assuming our data reflect newscast operations in other major markets, we cannot comfortably extend these findings to smaller markets. Future content analyses can address each of these issues.

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