

## **The Ailing State of Health News Coverage: Is PR the Antidote?**

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In the 1980s, health care became an established news topic when diseases such as herpes, and later AIDS became prominent issues. The continued rise in the prominence and importance of health coverage may be attributed to a variety of factors, including the large population of aging baby-boomers who are facing the challenges of staying healthy as they grow older. In spite of the importance of health care news coverage, research in this area has not been extensive. What research has been conducted has almost exclusively focused on large newspapers and/or television network news coverage. Virtually no research exists on health coverage provided by news organizations serving small and underserved communities. The focus of this manuscript is to examine the current state of health news coverage, and then to explore the potential that public relations might play in improving the quality of health news coverage.

## **Accuracy of coverage**

Existing research on health news coverage consistently indicates that health stories often contain inaccuracies and other elements that likely lead the public to make false assumptions about disease and health care. Shuchman and Wilkes (1997) assert that the public is poorly served by the coverage of medical science in the general press. They found that scientists and physicians blame the press, claiming that journalists are careless in their reporting, subject to competitive pressures, and ignorant of the scientific process. Conversely, journalists accuse the medical community of limiting access to information and erecting barriers to the public dissemination of medical research. In many areas of health news reporting, the underlying problem is an interactive dynamic that involves scientists and journalists. These researchers argue that all parties share the responsibility for accurate communication to the public. This report suggests ways to improve health news reporting, focusing on four problem areas: sensationalism, biases and conflicts of interest, lack of follow-up, and stories that are not covered.

Another study investigated the accuracy of newspaper and magazine accounts of research pertaining to breast cancer and mammography (Moyer et al., 1995). The researchers examined 60 articles written on the subject over a 2-year period. Results indicated that 70 percent of the stories contained content-based inaccuracies. The authors discovered 10 types of errors: 1) misleading titles, 2) shift in emphasis, 3) treating speculation as fact, 4) erroneous information, 5) omitting other important results (e.g., citing the health benefits of a drug but not its risks), 6) omitting qualifications to findings, 7) omitting important aspects of the research methods, 8) over generalizing findings, 9) inaccuracies due to obtaining information from personal communications, and 10) other

miscellaneous inaccuracies (e.g., indicating that “mammograms prevent breast cancer” when they only detect it).

Another recent study examined whether newspapers provide well-founded and objective information and recommendations (Wells et al., 2001). Stories appearing in the six top-circulation U.S. newspapers during the period of 1990 to 1997 were analyzed. The researchers looked at the number of articles about screening mammography, issues covered by the articles, information sources, content and sources of quotes, recommendations cited in articles, and presentation of risks and benefits. They found that the most common theme of newspaper articles about mammography was screening for women 40 to 49 years of age. Thirty-one percent of the articles presented information without citing a source or justification. Quotes and recommendations in the articles were approximately twice as likely to support as to express reservations about mammography for women aged 40 to 49 years. Recommendations changed little over time and rarely reflected changes in recommendations of national organizations. Of the 102 articles describing the benefits of mammography, 95% expressed them in relative terms and 11% expressed them in absolute terms. The researchers concluded that newspapers tended to over-represent support for screening mammography for women aged 40 to 49 years. They also indicated that reports would have been improved by identification of all sources for information cited, less reliance on relatively few sources, and discussion of benefits in absolute as well as relative terms. Medical journalism may benefit from identification of standards similar to those used for reporting medical research.

A number of other studies support these findings. One study examined the accuracy of newspaper reports related to the case of aspirin for the prevention of heart attacks (Molitor, 1993). The study compared the information appearing in the top five national newspapers

based on daily circulation rates (i.e., The Wall Street Journal, USA Today, New York Daily News, Los Angeles Times, and The New York Times) to an original research report published in The New England Journal of Medicine. The study found that all five newspapers published stories that contained errors of omitted information, sensationalism, and inference. Another study examined cancer coverage in 50 daily newspapers in the U.S. (Freimuth et al., 1984). The researchers concluded that news stories did not generally provide statistics on the incidence of cancer in general, and they particularly underreported the recorded incidence of colorectal cancer relative to other cancers. Breast cancer was the most widely covered cancer though it is not the most prevalent or deadly form of cancer. News stories generally failed to focus on those cancer issues about which surveys have shown the public to be ill informed, including incidence of various forms of cancer and survival rates. Cancer coverage tended to emphasize dying rather than coping with the disease. The many resources available to cancer patients and their families were seldom mentioned.

Frost and Maibach (1997) examined the representativeness with which the print news media depict mortality. The researchers compared the amount of text devoted to causes of death and the actual number of reported deaths. For every tested cause of death, a significant disproportion was found. Under-represented causes of death included tobacco use and heart disease. Over-represented causes included illicit drug use, motor vehicle accidents and toxic agents. Cancer was also over-represented. The authors conclude that news media significantly misrepresent the prevalence of leading causes of death and their risk factors, which likely leads to the public's distorted perceptions of health threats.

However, another study found that news coverage was reflective of mortality rates. Adelman and Verbrugge (2000) analyzed the relationship between newspaper coverage,

epidemiological rates, and recent social history of six prominent diseases. The researchers found that trends in newspaper coverage of a disease reflect trends in its mortality, prevalence, and incidence. Magnitudes of newspaper coverage of diseases reflected their differential mortality rates. Using the LEXIS(R)-NEXIS(R) news archive for major newspapers, the researchers retrieved articles about cancer, heart disease, AIDS, diabetes, Alzheimer disease, and arthritis for the period 1977-1997. They also obtained mortality, prevalence, and incidence trends for the six diseases. Results indicated that during the two decades, newspaper coverage closely parallel mortality trends, and less consistently prevalence and incidence trends. Sharp downturns and upturns in mortality were mirrored in news volume. High-mortality diseases prompted both the most news coverage and the largest proportions of articles with death topics. These researchers concluded that newspaper coverage of diseases is responsive to their mortality levels and trends.

While the Adelman and Verbrugge (2000) study found the media to be relatively accurate and proportional to health threats, the preponderance of studies indicates that much more needs to be done to improve the accuracy and emphasis of health news coverage. One potential cause of inaccurate news stories may stem from a scientific journal's own press releases.

### **Media depictions/cultural and social stereotyping**

Mainstream health education often fails to reach minority populations. This is particularly troubling since 80% of excess death among minority and economically disadvantaged communities are from preventable or controllable causes (Healthy People 2000, 1990). Understanding the sources of information that different ethnic groups use to gather health information is critical to reaching these populations. In a study of minority

populations in the northeast, O'Malley et al., (1999) found a variation in preferred sources depending on race and ethnicity. For example, Blacks were much more likely to receive information from a health care provider than Hispanics. While television was a popular source of health information for both groups, Blacks were less likely to use radio. Newspapers were a more common source of health information for all non-White populations studied than was radio, but television was the most common media source for almost all of the groups studied. However, employing the right media sources is only part of the picture. How news stories are framed is a vital component in how they will be received by different groups of people.

Media framing of complex diseases is important because the way these are presented may affect individuals' choices regarding health. Several studies have focused on media health coverage and the degree to which these stories contain cultural and social stereotyping. Clarke (1999) studied the meanings associated with prostate cancer in contemporary mass print media. The study included both manifest and latent content analysis of a period of approximately two decades, from 1974 to 1995. The manifest analysis revealed a primary emphasis on the importance of early detection. The latent analysis found that prostate cancer's presentation is gendered. Its description is embedded in themes related to masculinity, sexuality, competition, brotherhood, and machismo. This study raises questions about the socially significant portrayal of the meanings of disease in the media. The researcher cautions that stereotypical imaging could alienate men who either do not or do not want to fit into the stereotypical ideal as it is portrayed in the media. Clarke further argues that such a portrayal also may have implications for the potential willingness of men to engage in early detection, avail themselves of treatment, act preventatively, or become

involved in lobbying for monies for research into the early prevention, detection, and treatment of prostate cancer.

Another study examined the nature of coverage about breast cancer and screening mammography. The authors analyzed 127 articles on breast cancer from three news magazines and four women's magazines to examine whether they focused on social or economic issues. Two content analysis methods were used to determine the issues, sources, and frames. The researchers found that the framing of issues in news and women's magazines were significantly different from one another. Although both presented information on prevention and treatment, news magazines were much more likely to frame breast cancer from an economic angle, focusing on insurance and research funding. Women's magazines offered more personal stories and comprehensive information.

Seale (2001b) examined the language used in news accounts of cancer experiences and found that sporting and military metaphors about the struggle with the cancer foe were extremely common. His findings extend the view of Sontag (1991) and other subsequent researchers in this regard. However, he disagrees that such “struggle” language is necessarily harmful to news consumers. Little research exists that examines whether such imagery is harmful or helpful. In a second study, Seale (2001a) examined the prevalence of religious themes in 258 news stories of 382 people with cancer. Such themes were rare. For the 35 people where religious themes are present, religion is portrayed as a marginal set of beliefs. Thus religious belief is associated with membership of a minority ethnic group, outmoded traditional authority, a matter of last resort after medicine has failed, or as childlike. Such a portrayal may be very counterproductive.

### **News effects on populations**

A variety of studies have determined that health media coverage does have an effect on the public. Yanovitzky and Blitz (2000) studied the relative importance of media coverage and physician advice on the decision of women 40 years and older to obtain a mammogram. The results suggest that while physician advice plays a key role in adherence to mammography guidelines, media coverage of mammography screening is also a key factor. Physician advice accounted for 36% of the variance in mammography-seeking behavior among women who have regular access to a physician, while media coverage was not found to be a factor among these women. On the other hand, there was no significant impact of physician advice on mammography-seeking behavior among women without regular access to a physician. However, mammography-related media coverage was found to be a strong and significant predictor of adherence among women without regular access to a physician, accounting for over 15% of the variance. This finding has particularly important implications for women in small and underserved communities. These communities tend to be less affluent and therefore likely to have less access to health care. The results provide evidence that both mass and interpersonal communication channels affect mammography-seeking behavior. Indeed, this is consistent with findings in many other contexts that an integrated communication approach is most effective for increasing knowledge, changing attitudes and beliefs, and affecting behavior (Heath, 1994).

Another study examined the role of television news within an overall integrated approach to promote screening mammography (Mayer, et al., 1992). To promote screening mammography, the San Diego County Unit of the American Cancer Society sponsored a community-wide program that featured: (1) discounted mammograms through participating clinics, (2) program promotion through television news, and (3) availability of a phone bank

for obtaining referrals for mammography. Pre- and post-intervention random sample phone surveys indicated that women's intentions to obtain a mammogram increased significantly after the media campaign, particularly in those aware of the program. Women's intentions after the media campaign predicted mammography compliance in the following year. A total of 3,102 women received mammograms directly through the program, with a "suspicious finding" rate of 4%. Participant satisfaction with the program was high.

Yanovitzky and Stryker (2001) studied the role of the news media, social norms, and health promotion efforts on youth binge drinking. Focusing on news coverage effects on youth binge drinking between 1978 and 1996, it was hypothesized that the media may have contributed to the reduction in this behavior by increasing perceptions of social disapproval. The predictive power of this approach was then compared with that of other plausible models (namely, a direct effects model and a model proposing media effects that are mediated by policy actions). The findings from two separate tests (a time-series regression and the ideodynamic method) suggested that although a direct route of media effects on binge-drinking behavior was not found, there was evidence that the impact of news stories on this behavior was mediated by policy actions as well as by changes in the social acceptability of this behavior.

Morton and Duck (2001) investigated the impact of media coverage of skin cancer on judgments of risk to self and others and the role of related communication processes. Results indicated that the effects of mass communication were more evident in perceptions of risk to others rather than in perceptions of personal risk. Perceptions of personal risk were more strongly correlated with interpersonal communication. However, as suggested by media system dependency theory, the relationship between mass communication and beliefs was

complex. The impact of mass communication on both personal and impersonal perceptions was found to be moderated by self-reported dependence on mass mediated information. The effect of this two-way interaction on perceptions of personal risk was partially mediated through interpersonal communication. As in the previous studies discussed in this section, results of this study point to the interdependence of mass and interpersonal communication as sources of social influence and the role of media dependency in shaping media impact.

Another study indicates that news media coverage of smoking and health is associated with changes in population rates of smoking cessation but not initiation (Pierce and Gilpin, 2001). The number of tobacco related news articles published in the U.S. were compared with the annual incidence rates for cessation and initiation computed from the large, representative National Health Interview Surveys (1965-1992). Patterns in cessation incidence were considered for ages 20-34 years and 35-50 years. Initiation incidence was examined for adolescents (14-17 years) and young adults (18-21 years) of both sexes. Results indicated that the annual incidence of cessation in the USA mirrored the pattern of news media coverage of smoking and health, particularly for middle-aged smokers. Cessation rates in younger adults increased considerably when secondhand smoke concerns started to increase in the U.S. population. Incidence of initiation in young adults did not start to decline until the beginning of the public health campaign against smoking in the 1960s. Among adolescents, incidence rates did not start to decline until the 1970s, after the broadcast ban on cigarette advertising. The researchers concluded that the level of coverage of smoking and health in the news media may play an important role in determining the rate of population smoking cessation, but not initiation.

It is possible, however, that while news coverage may not have a direct effect on initiation of smoking among adolescents and young adults (perhaps because people in this age group are much less likely to attend the news programs), reaching their parents may lead to lower initiation among this younger population. Sargent & Dalton (2001) investigated the role parental disapproval plays in preventing adolescents from becoming established smokers. The researchers found that adolescents who perceived strong parental disapproval of smoking were less than half as likely to rate high on a smoking index level compared with those who did not perceive strong parental disapproval. This effect was as strong for adolescents whose parents smoked as it was for those with nonsmoking parents. Additionally, an interaction analysis suggested that when both parents strongly disapprove of smoking, those adolescents were more resistant to the influence of peer pressure to smoke.

One key element in a person's ability to realistically assess the threat of disease and the risks and benefits of treatment is his or her quantitative ability. Woloshin et al., (2001) conducted interviews and surveys from 96 women to determine the role numeracy played in assessing health risks and treatment. The researchers found that those individuals with low numeracy were significantly less able to correctly choose the right utility assessment using the standard gamble and time trade-off techniques. These findings are consistent with an earlier study, which determined that low numeracy interfered with women's ability to make use of quantitative information about the risk-reducing benefits of screening mammography (Schwartz et al., 1997). However, Woloshin et al., (2001) found that by using a visual chart, women across levels of numeracy were able to choose the right utility assessment.

## **Factors affecting coverage/story ideation**

Several studies have examined the factors that affect health news coverage and how journalists develop story ideas. Van Trigt et al., (1994) examined the sources of ideas and information on medicines for newspaper journalists. They employed the use of both content analysis and interviews. The researchers found that scientific journals were the source of most articles, followed by experts at universities, then the pharmaceutical industry, and finally scientific meetings. While the pharmaceutical industry was found to be an important source of story ideas, some journalists voiced skepticism about the quality ideas and information from this source. While indirect contact with experts from universities was less important for sources of information, university experts were deemed a more important source of story ideas. Interviews revealed that journalists preferred the indirect contact with the professional community provided through journals because the peer review process provides a mechanism for ensuring quality information. However, a more recent study examined the number of news stories published about abstracts at scientific meetings (Schwartz, Woloshin and Baczek, 2002). The researchers discovered that abstracts received substantial attention in the news media even though half the studies abstracted remain either unpublished or published in low impact journals. The implication is that many health stories are based on research that has received little scrutiny from the scientific community.

Corbett and Mori (1999a) investigated the relationship between medical activities, public events, and media coverage of breast cancer during a 36-year period between 1960 and 1995. There was substantial support for medical attention preceding media attention to breast cancer, and some evidence of medical attention following media coverage. There were extremely high, significant correlations between the number of medical journal articles and

the amount of newspaper, magazine, and TV coverage. Time-series analysis revealed a two-way, concurrent relationship between breast cancer funding and media coverage. Public events (prominent women acknowledging their breast cancer) significantly affected media coverage. There was a two-way concurrent relationship between breast cancer and the incidence of the TV coverage.

In a second study, Corbett and Mori (1999b) found that a reporter's gender appears to have an influence on the topic and manner in which health stories are developed. The researchers examined national television newscasts on ABC, CBS and NBC from 1972 through 1995. The researchers found that male reporters presented 75% of all gender-specific cancer stories, and 96% of male-cancer stories and 72% of female-cancer stories. Additionally, male reporters delivered cancer as a science story, focused on treatment and therapy, and mentioned more medical research. Female reporters were more likely to report on health policy or famous women with cancer.

One health angle that appears noticeably absent is the role nursing plays in health care. Buresh (1999) studied health stories in the nation's largest newspapers and found that nursing was all but absent in health coverage. As would be expected, physicians accounted for almost one-third of 908 sources directly quoted in the stories analyzed. Nurses accounted for only 1% of sources. Sources from government, business, education, nonprofits, patients and family members were quoted more often than nurses. Journalist Suzanne Gordon (1997) points out that when health coverage focuses exclusively on medicine, it reinforces the notion that illness is an event rather than a process. Buresh argues that such a focus gives readers a very myopic view of health and illness.

## **The Potential Role of Public Relations in Improving Health News Coverage**

While it is not realistic to believe that public relations can solve all the problems with current health news, effective PR can make a substantial contribution toward improving that coverage. A first step toward making improvements in health news coverage is to understand the reasons for erroneous or hyped news stories. No doubt some of the problem stems from poor communication between journalists and health professionals, scholars, and health institutions. Additionally, there is often a lack of training on the part of journalists about health sciences, as well as a lack of understanding on the part of those in the health field about what journalists need to produce quality stories.

It must also be acknowledged that there are financial pressures at work. A national poll conducted by the National Health Council found that 75% of 2,256 adults surveyed pay either a “moderate amount” or a “great deal” of attention to medical and health coverage (Johnson, 1998). Health news helps drive circulation and ratings, and media decision-makers may feel that hyping stories is to their advantage. Journalists often seek ways to decrease the amount of hype associated with medical stories, but often feel pressure or encouragement from the medical profession and from media editors and news directors to run such stories (Brownlee, 2003). Aumente (1995) cites two veteran broadcast reporters about this phenomenon, CNN’s Dan Rutz and NBC’s Robert Bazell. Rutz indicates that both print and television news media tend to over-dramatize news stories and present research as larger news than it is realistically. He blames both the journalists for insufficient backgrounds in medicine and science and/or their organizations for pushing for circulation and ratings. Bazell, who did doctoral studies in immunology, says that “hospitals and research institutions

are being massively threatened with cuts, and there is a lot of pressure from institutions to publicize themselves” (Aumente, 1995, p. 28).

Stryker (2002) indicates that there is tension between journalists and professional in the health field because of the fundamental differences in the normative values of each profession. While science values replication over time, journalism is based on the timeliness of the news event. Freimuth et al., (1984) suggest that improvement of health news coverage must begin with those who disseminate health information to the press. They indicate that reporters need to receive a better understanding of what scientists and researchers consider the priorities for public information needs. Additionally, public relations practitioners need to be aware of the common pitfalls of health news coverage and attempt to overcome them.

One of the first places to start is with one of the most common tools of the PR trade, the news release. Considerable research has documented the impact of public relations practitioners on news selection. The literature, according to a review by Cameron, Sallot and Curtin (1997), shows that news releases with information of use to consumers is more likely to be used by journalists than are news releases focusing on past events or news releases with an institutional focus. Simpler releases are more likely to be used than more complex ones. Localized releases have higher use rates than ones that do not have a local connection. Prominent group affiliation also increases acceptance rates. In general, small news organizations are more likely to use news releases than are larger ones. An understanding of these research findings should help health public relations practitioners to develop more effective news releases and help better target where those releases are sent.

Schwartz and Woloshin (2002) examined press releases of nine high profile medical journals. They discovered that the press releases frequently reflected exaggerated findings

and often failed to highlight study limitations or conflicts of interest such as industry funding even though the actual articles took great care in qualifying the studies boundaries and limitations. Clearly, those writing the press releases need to be more careful to include such boundaries and limitations. Additionally, there is a need to alert journalists to the reality that these press releases may contain inaccuracies of some sort, and to train them to be wary of potential problems and how to follow up on press releases to ensure that stories accurately represent the research.

One key element that must be present in news releases, and in all forms of health public relations, is the emphasis on context, balance and perspective. Woloshin et al., (2002) argue that typical presentations of health risks portrayed in news stories and other avenues may not be effective in providing people with a realistic assessment of disease mortality and morbidity because these messages typically provide no context. They argue that in order to fairly assess the magnitude of disease risk, context needs to be provided relative to other common causes of death. Take cancer as an example. As an alternative to just providing overall statistics of the number of deaths expected as a result of cancer, the researchers created simple-to-use risk charts that provide mortality statistics about a number of common or commonly reported causes of death in addition to cancer. Additionally, the charts reflect risk in relation to several key variables: age, sex and smoking status. If journalists included such aids to provide context within their health stories, the public may have a much better perspective on how to incorporate the information into their lives. The health public relations practitioner can assist the journalist in doing this by providing such a chart to accompany press releases.

In addition to better news releases, public relations professional also need to provide an array of other support materials for journalists, especially those who have no formal training in health and science. This might include detailed fact sheets, books and other printed materials, links to Web based resources, and contact information identifying local and regional experts with whom the journalist may follow-up. We also recommend that public relations professionals provide journalists with an inventory of common problems in health stories. Table 1 outlines a checklist of 18 common threats to health stories. This checklist may assist journalists in avoiding these problems in their stories.

**Table 1: Checklist of Common Story Inaccuracy, Bias and Omission Threats**

	Misleading titles or news teasers		Inaccuracies due to obtaining information from personal communications
	Shift in emphasis		Failure to cite sources of information
	Treating speculation as fact		Over-reliance on few sources
	Erroneous information		Discussing benefits in absolute terms
	Bias and conflicts of interest		Failure to place information in a larger context
	Lack of follow-up		Relying on stereotypic themes to frame stories
	Stories/topics not covered		Failure to place careful consideration of source information, i.e., refereed journals, vs. non-refereed, low-impact vs. high-impact journals, etc.
	Omitting other important results, (e.g., citing the health benefits of a drug but not its risks)		Over-generalizing findings
	Omitting qualifications to findings		Omitting important aspects of the research methods

Ultimately, journalists and health experts must work together to improve the overall quality of health stories. State and federal agencies can certainly play a part in this process by providing information and funding grants and workshops. Schools of communication,

journalism, and those in the health sciences must also strive to train students in ways to best work with each other. And health organizations and medical professionals can provide assistance to journalists through workshops, symposia and other means. Additionally, further research is needed to explore how news is covered in small towns and rural areas. It is unlikely that journalists in these areas are adequately trained to cover health and science news, yet these communities are often represent some of the most under-served groups in our population.

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