Living Can Be Hazardous to Your Health: How the News Media Cover Cancer Risks

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For more than two decades, the news media has bombarded the public with often conflicting information about health risks, contributing to an atmosphere of hype and hysteria about cancer and other diseases. Improvements in media reporting of health risks require greater efforts by both those who cover the news and those who create it. Guidelines for bringing more perspective and balance to media coverage of risk are provided. These include putting cancer in context with other diseases, explaining absolute and relative risks, differentiating between individual and population risks, stressing the degree of uncertainty of new research and how it fits with previous data, covering the process as well as end results of science, understanding different media constraints and needs, and taking into account the diverse backgrounds and needs of the target audience—the general public. [Monogr Natl Cancer Inst 1999;25:167–70]

There is little, if any, humor to be found in cancer, the nation's second leading killer, or in the known and suspected causes of this diverse group of diseases. It is a deadly serious subject. But there is some comic relief in cartoons that manage to poke fun and provide insight into difficult problems. Such is the case with a cartoon bearing a facetious headline that rings true: "Today's Random Medical News from the New England Journal of Panic-Inducing Gobbledygook." It features a newscaster announcing the latest findings from "a report released today" involving yet another health scare. His backdrop is a set of three roulette wheels listing seemingly random health risks—from smoking to stress—that may or may not cause a variety of problems—from depression to sexual dysfunction—in everything from rats to men 25–40 years old *(1)*.

Unfortunately, for nearly three decades, media coverage of health risks, particularly cancer risks, has increasingly seemed to follow a wheel-of-fortune approach. Be it hourly, daily, weekly, or monthly, journalists following the latest study spin out a new health risk that often contradicts a previous study and helps contribute to a general feeling of confusion and concern in the general public. The lasting impression, however mistaken, is that virtually every aspect of daily life can indeed be hazardous to your health. The Surgeon General's warning about smoking has become ubiquitous, extending to a seemingly endless list of major and minor hazards with varying degrees of proof about their relevance to human health.

The bombardment of bad news, particularly about purported cancer risks, runs the gamut. The pesticide Alar® and apples. Estrogen replacement therapy and possible breast cancer risk. Benzene contamination of Perrier sparkling water. Second-hand smoke. Asbestos in schools. The artificial sweetener saccharin and cancer in rats. Radon and lung cancer. The list goes on and on.

The coverage of known and suspected cancer risks is not merely a creation of the media, however. There is plenty of blame to go around. The often misleading risk coverage involves a variety of players, including bench scientists, clinicians, universities, manufacturers, public relation firms, medical journals, advocacy groups, lawyers, and politicians.

To understand the current coverage of cancer, it is important to look back to 1971, when the national "war on cancer" was launched. This was the first story I covered as a journalist, and I remember the message sent from official Washington, from the President on down: if we spend enough money on a crash research program, we can win a war against the feared enemy cancer. Some argued that if we can put a man on the moon, surely we can cure cancer. Fortunately, reason prevailed over rhetoric, and cancer research, with greatly increased funding, was kept within the umbrella of the National Institutes of Health *(2)*. Unfortunately, both the media and the medical community have continued to use military metaphors in the coverage of cancer and its risks. It has always been somewhat misleading because the emphasis on who's winning and who's losing creates a body-count approach to cancer in the public eye. The "war" on cancer is, of course, still going on, and while some battles have been won, the casualties remain very high.

In terms of language, the ongoing use of the word "cancer" in a singular manner also continues to give the misleading impression of one disease rather than emphasizing the complexity of more than 100 different diseases with a multitude of different risk factors.

Cancer coverage in the 1970s set the tone for coverage to come. As money was poured into animal testing, reporters faced the challenging new "carcinogen-of-the-week syndrome" and found themselves covering mice more than men. A Robert Mankoff cartoon, showing two mice talking in a cage, captured the moment: "My main fear used to be cats—now its carcinogens" *(3)*. The federal chemical testing program led to a deluge of fragmented, scary, difficult-to-interpret stories that contributed to the feeling among the public that everything causes cancer. New testing methods made it possible to detect ever smaller amounts of carcinogens in the environment. A widely publicized pronouncement by prominent researchers that more than 90% of cancer is "environmental" fueled the fire. In this case, the word "environmental" was misleading because the all-encompassing phrase technically meant everything that was not "genetic," including personal actions like eating and smoking. But because of the emerging environmental movement, the pronouncement was viewed by some as a confirmation that chemical pollutants in the air, land, and water were major cancer culprits. Yet there was no consensus in the scientific community about what the newly documented risks really meant in terms of human health hazards.

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The overemphasis on the environmental causes of cancer was countered to some degree in the late 1970s and in the 1980s by a growing recognition that "lifestyle" was in fact the major cause of most cancers. Campaigns to influence individual behavior and prevent cancer and other diseases gained more attention and "prevention" became a buzzword. Cigarette smoking—long recognized by experts as the leading preventable cause of death and disease in the country—began to receive more attention, aided by government officials like outspoken Health, Education, and Welfare Secretary Joseph A. Califano, Jr., in the Carter administration and charismatic Surgeon General C. Everett Koop in the Reagan administration. Finally, both the health and journalistic communities started to provide more perspective on the behavioral side of cancer risk. The comment by cartoon character Pogo, "We have met the enemy and he is us," hit home *(4)*.

In the 1990s, cancer continued to receive considerable media attention, particularly specific cancers of the breast and prostate. New genetic studies provided insight into which cancers were hereditary and generated potential tools for detecting cancer genes. Changes were also made in the way scientists worked with the media. When I began covering cancer in the 1970s, researchers were reluctant to speak to us and sought to hide behind the shield of press releases and journals. Although that is still true for some, more researchers see the value of communicating with the public through the media. Some doctors have even hired large public relations firms to promote their work, and journalists now find themselves contending with some overenthusiastic medical promoters. As a *New Yorker* cartoon, showing a doctor examining a patient (Fig. 1), put it: "Mr. Wilkins, I believe your condition is going to get us both into the *Journal of the American Medical Association*" *(5)*.

A greater eagerness for publicity is also seen in the promotional efforts of medical journals, many of which now provide advance press release packages and have release dates and times carefully chosen to increase the chance of making the evening news. Institutions, from universities to companies with new medical products to sell, also vie for more media attention. In addition, the legal system, as we have seen with the heated controversy over the safety of breast implants, has increasingly intruded into medical coverage and further polarized already controversial scientific issues.

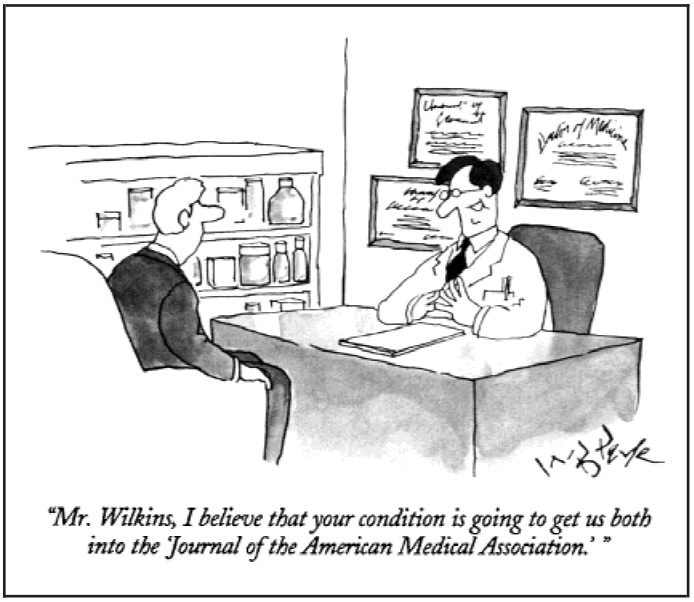

Fig. 1. © The New Yorker Collection 1995 W. B. Park from cartoonbank.com. All rights reserved. Reprinted with permission by *The New Yorker*.

The intense coverage, on a story-by-story basis, has emphasized disagreement over agreement. As one story contradicts another, or experts take extreme sides, the public confidence in both the media and the scientific community diminishes. One of the most famous *New Yorker* cartoons (Fig. 2) about risk shows a tanker truck barreling down a highway, with this message painted on the truck's side: "The scientific community is divided. Some say this stuff is dangerous, some say it isn't" *(6)*. In addition to conflict, there is also uncertainty, particularly in the risk arena. This uncertainty might be called the National Academy of Sciences syndrome, because so many reports on important medical and scientific issues end with the caveat that "more research is needed." One cartoon by Sidney Harris, who is a master at capturing scientific humor, shows two lab-coated researchers in intense conversation: "Granted, we have to do the research, and we can do some research on the research, but I don't think we should be involved in research on research on research" *(7)*.

Fig. 2. © The New Yorker Collection 1988 Mischa Richter from cartoonbank.com. All rights reserved. Reprinted with permission by *The New Yorker*.

The problem is that most times the news media, both print and broadcasting, simply cannot wait for the scientists to complete all of the studies needed to reach complete consensus. Instead, we need to give the best information available to the public at a given point in time. But how well do we do that? Certainly, as journalists, we have contributed to the public hysteria over cancer risks. As a group, we do indeed tend to emphasize the dramatic over the mundane, new risks over old ones, and conflict and drama, particularly in the environmental, political, or legal arenas. We seldom report on the "negative" stories about things that do not cause cancer.

Nonetheless, I believe that reporters with better training and experience in medical and science reporting, working with public information offices and scientists that are truly willing to work with the media, can do a much better job of putting risk coverage into perspective. Instead of reporting each story in a vacuum, many of us are trying harder to present stories involving risk in a framework that emphasizes what we know and what we need to know, who is at risk and who is not at risk, what can be done now in terms of prevention and what needs to be done in the future.

Working to improve media coverage of cancer, whether basic research or epidemiologic studies involving risk, prevention, or treatment, the key element is balance. The following are ten tips that reporters, as well as those who help create the news, should keep in mind to improve coverage.

1) *Put cancer in context.* Although cancer is the nation's second leading killer, it is obviously not the only set of diseases that threatens the public. Heart disease kills more Americans. Women should not be made so fearful of breast cancer that they fail to worry about actions they can take to prevent heart disease. But this should not be a competition. The key is to put cancer in context with other causes of morbidity and mortality.

2) *Stop the "yo-yo" approach to cancer coverage.* Too often stories hype alarming new risks and overpromote promising new findings. Veteran *Washington Post* science reporter Victor Cohn once said that most medical news coverage, particularly front-page coverage, is either "no hope or new hope." What is hopeless this month may be hopeful the next. We need to find the balance in between. Avoid the use of the words "breakthrough" or "cure," however encouraging new findings might be.

3) *Write about the process of science as well as the end results.* Too much of medical coverage is based on ritualistic weekly coverage of the top medical journals, with each study often presented as the latest word on a given risk. We need to step back in covering medicine and present research as an up-and-down, ongoing process that is continually updated as new research comes in. Review articles and features that take the reader inside a laboratory or clinical research setting help put the latest studies in a broader perspective.

4) *Emphasize the degree of uncertainty involved in cancer risks.* Because cancer may develop decades after exposure, the cause and effect is difficult to prove. Too often reporters and researchers try to make certain that which is not. The public can understand that some risks are less defined than others and need more research to help reduce uncertainty and controversy. A risk story should indicate whether research is preliminary or well documented. How does a new study fit in with previous research? How large was the study? How well designed was the study? What reaction is there in the research community to the new findings? What is the magnitude of this risk compared with other risks?

5) *Distinguish between absolute and relative risk.* Too often a new epidemiologic study finds that a given chemical poses a nine times greater risk of causing cancer or other health problems but does not provide the "absolute" risk of getting cancer in the first place. If a risk is 1 in 1 million to begin with, the increased relative risk may be less significant to a given individual than an increase in a more common risk with a baseline of 1 in 1000. Although it did not involve cancer, a good example of the misleading nature of publicizing relative risk alone was a "pill scare" in Britain in late 1995. Regulatory authorities released preliminary findings suggesting that certain new low-dose birth control pills doubled the risk of getting blood clots. The findings were published in the *Lancet* and *British Medical Journal.* Little noticed was a follow-up letter in the *Lancet* noting that the risk of blood clots was so small in the first place that doubling it posed little added danger because it "boils down to whether 9998 or 9997 out of 10 000 pills users remain free" of blood clots *(8).* Journal editors need to ask authors to provide more information on the baseline risk when available.

6) *Distinguish between individual risk and population risk.* Often a given exposure may pose a minimal risk to any single individual. However, if many people are exposed involuntarily to a risk, such as contamination of food, water, or air, it may be a significant public health problem even if the individual risk is small. Stories often confuse individual risk and risk to the population at large.

7) *Stress that exposure is the key, whether the risk is occupational, environmental, or through personal behavior.* There is sometimes a tendency for public health communicators to sound a single alarm bell and try to universalize risk. The early publicity about acquired immunodeficiency syndrome, for example, tended to stress that everyone who was sexually active was at risk. Instead, as the coverage became more sophisticated, there was an emphasis on high-risk populations engaging in certain sexual or drug-use behaviors that greatly increased the likelihood of exposure. Not everyone is at equal risk for any hazard, because the degree and timing of exposure is directly related to increased individual risk. Stories should also stress which populations are most vulnerable to a given risk, such as children, individuals with prior diseases, or older individuals. Too often the alarm bell rings so loudly that everyone feels vulnerable, even when they are not.

8) *Provide information on what can be done about a given risk, whether by the individual, by the public sector, or by government.* It is helpful for the audience to know what the word "prevention" really means and for reporters to distinguish between known preventable risk factors and risk factors that are little understood or uncontrollable. In breast cancer, for example, the strongest known risk factors are family history of the disease in immediate relatives; in the past, there was nothing that could be done about this except increased medical follow-up. Today, the rapid pace of genetic research is providing new opportunities for intervention.

9) *Respect the independence of the news media and recognize the varying needs of different types of journalists.* Like cancer, the word media has a singular sound, yet we too are very diverse. We do not all wake up in the morning and decide on the same story. Much like researchers or clinicians, members of the media are independent practitioners doing their jobs in different ways.

The electronic media, obviously, has different needs than the print media, both in terms of timing and visuals. A daily newspaper reporter has less time to prepare a story and sometimes less space than a reporter working on a long newspaper feature or a magazine writer. The same is true for a daily broadcaster versus a crew working on a primetime "magazine" piece or a documentary. Those who have a story to tell should recognize the needs of individual reporters, as well as our individual autonomy. Most reporters in traditional news media try to avoid being captured by special interests, even those with "good" causes.

10) *Recognize that there is no single "public" that we are trying to reach.* There are many publics out there, who read and listen differently to news of new risks. Some are easily alarmed; others are cynical or convinced that nothing applies to them. Some are literate and well informed; others have little understanding of science or risk. One survey, for example, found that many Americans incorrectly believed that "DNA" stood for Drug and Narcotics Association, a stock market index, or a toxic chemical. Only one of five respondents correctly identified it as a genetic building block or blueprint *(9).* We need to explain terms clearly and, most importantly, realize that we are frequently preaching to the converted. Often the people we need to reach, who may be at greatest risk, are not the ones reading newspapers or even watching television news on cancer.

Improving coverage of cancer risks is a challenging, long-term project that involves a recognition that there is indeed a problem of often unbalanced, hysterical coverage of cancer and a commitment to improving the product by both those who make the news and those who cover it.

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