Communicating Science-Based Food and Nutrition Information

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ABSTRACT Science evolves. Ongoing research, review and debate generate novel ideas and provide new insights to current scientific understanding. However, science is frequently reported to the public without context, which creates confusion. One study seemingly contradicts another, leaving consumers to doubt both scientific experts and science. This paper highlights quantitative and qualitative data to illustrate consumer confusion, frustration and apathy toward nutrition science and health information. Further, this paper shows how science communications and health advice can be tailored for specific audiences and, importantly, how scientists themselves can help the media understand and position research to minimize consumer confusion. J. Nutr. 132: 2481S–2482S, 2002.

KEY WORDS: • nutrition • scientific information • communication • public health

Participants in the Trans-HHS Workshop: Diet, DNA Methylation Processes and Health learned that a better understanding of DNA methylation will lead to a better understanding of many diseases. Researchers throughout the world are active in efforts to elucidate the complexity of diet and DNA methylation interactions, which will lead to gains in fundamental and applied knowledge in human health. Careful consideration should be given to how these gains are communicated to audiences outside the scientific community.

DNA methylation is only one of the many scientific issues needing responsible communication. When any scientific study is concluded, it is unlikely that its findings will be the final word on a subject. Rather, scientific conclusions and the methods used to reach them are deliberately and methodically scrutinized for their accuracy, validity, reliability and applicability. Conversely, news stories are judged by their instant appeal—the impact of a headline or the allure of a sound bite. Scientists might view the practicality of a specific study’s conclusion much differently than those who report the information to the public. This incongruity between science and media not only perpetuates misinformation and “junk science” but also fails to provide the wider context that gives single scientific conclusions their meaning.

To meet this communications challenge, the International Food Information Council (IFIC) seeks to bridge the gaps between how science is practiced and how science is communicated to opinion leaders (those who have influence with consumers). Although IFIC is supported primarily by the broad-based food, beverage and agricultural industries, it does not lobby nor does it have a policy charge. IFIC’s main purpose is to facilitate communication between science and the media so that consumers are given an appropriate context for science-based information. The IFIC Foundation is the educational arm of IFIC and further helps the media, educators, health professionals and scientists effectively communicate nutrition and food safety concerns to the public.

Providing the bridge between scientific research and communications with the public is particularly relevant because consumers are consulting a widening variety of sources for health and nutrition advice—sources that can sometimes be confusing and contradictory. The American Dietetic Association (ADA) trends survey shows that media are the primary deliverers of health and nutrition information to consumers (1). Forty-eight percent of consumers polled in the 2000 survey said that they receive their health news from TV (down from 57% in the 1997 survey); magazines and newspapers follow at 47 and 18%, respectively. Family, friends, books, physicians, the Internet, and the radio also are key information sources. The ADA survey also examined the most valued nutrition information sources. At least 90% of those surveyed said they relied on doctors, registered dieticians and nutritionists, followed by magazines (87%), nurses (85%), newspapers (82%), and television news (79%).

1 Presented at the “Trans-HHS Workshop: Diet, DNA Methylation Processes and Health” held August 6–8, 2001, in Bethesda, MD. This meeting was sponsored by the National Center for Toxicological Research, Food and Drug Administration; Center for Cancer Research, National Cancer Institute; Division of Cancer Prevention, National Cancer Institute; National Heart, Lung and Blood Institute; National Institute of Child Health and Human Development; National Institute of Diabetes and Digestive and Kidney Diseases; National Institute of Environmental Health Sciences; Division of Nutrition Research Coordination, National Institute of Health: Office of Dietary Supplements, National Institute of Health; American Society for Nutritional Sciences; and the International Life Sciences Institute of North America. Workshop proceedings are published as a supplement to The Journal of Nutrition. Guest editors for the supplement were Lionel A. Poirier, National Center for Toxicological Research, Food and Drug Administration, Jefferson, AR, and Sharon A. Ross, Nutritional Science Research Group, Division of Cancer Prevention, National Cancer Institute, Bethesda, MD.

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Although consumers rely on the media for health information, they are confused about what they hear. A 1997 report by The National Health Council noted that 68% of survey participants agreed with the statement: “When reporting medical and health news, the media often contradict themselves, so I don’t know what to believe” (2). The same year, The Food Marketing Institute (FMI) reported that eight of ten consumers think that it is very or somewhat likely that “the experts” will have a completely different idea about which foods are healthy within the next 5 y (3). Research conducted by Rodale Press for Princeton Research Associates highlighted which health stories consumers find the most confusing (4). Stories about vitamins and supplements top the list, followed by nutrition stories. Consumers find it difficult to distinguish between public-interest trivia and information that actually warrants behavior change.

Every 2 y, the IFIC Foundation commissions an in-depth qualitative and quantitative analysis of food news to determine the popular media issues that reach consumers (5). In 1999 there was 53% more coverage of diet, health, nutrition and food safety issues than 2 y before. Much of the news represented a real shift in focus—away from the harms of food and more toward food’s benefits due to the emergence of the functional foods concept. The IFIC Foundation also found that during the 3 mo of coverage, science experts and researchers were the number one source of information for the media. This strongly indicates that reporters and editors are consulting experts to put new findings into the context of scientific literature on a subject. The media’s reliance on scientific experts also underscores the role that each scientist and professional can play in helping to interpret science for the public.

The media’s major obstacle in communicating science is a lack of understanding of the scientific process itself, especially among non-science writers. Journalists with science backgrounds may better understand that every new study is not necessarily news, but rather part of a larger process of discovery and debate. However, to a general assignment reporter who may not understand this process, each new study seems to provide newsworthy information and potential headlines.

For instance, the information presented at the Trans-HHS Workshop: Diet, DNA Methylation Processes and Health showed how continued research has the potential to impact people. However, no single health message will apply to everyone. Therefore, it is imperative that the emerging and ongoing science discussed at the workshop be translated in a way that ultimately makes it meaningful to the public. Recognizing this need, the IFIC Foundation has worked with science and health communicators to determine how best to provide scientists and experts with: 1) an understanding of their critical role in the communications process and 2) a level of comfort in providing context when speaking with journalists.

To address these challenges, the Harvard School of Public Health and the IFIC Foundation convened an advisory group to examine the communications process. The group included scientists from Harvard University and Tufts University, medical journal editors, professional interest group and food industry representatives and practicing journalists. ABC News medical/health editor, Dr. Timothy Johnson, M.D., M.P.H., chaired the advisory board. The committee was charged with devising practical guidelines for interpreting and reporting science-based information for all players in the communications process.

Early in the deliberations, the advisory group realized that just as there is a food chain, there is a communications chain. On one end is the scientist, who interprets science as it emerges; at the other end of the chain is the journalist, who is the visible deliverer of the information. Scientists and journalists are linked by a number of other key stakeholders, including journal editors, public information officers/public relations professionals, consumer groups, special interest groups and food industry groups. All of these stakeholders play a critical role in how scientific information reaches the public.

What resulted from this joint Harvard-IFIC Foundation advisory group was a set of questions meant to guide all groups in the communications process (6).

- Will your communication enhance public understanding of diet and health?
  - Have you put the study findings into context?
  - Have the findings been peer-reviewed?
  - Have you disclosed the important facts about the study?
  - Have you disclosed all key information about the study’s findings?

The advisory group paid particular attention to the role of funding sources and agreed that they should be disclosed when reporting a study’s results; the findings ought to stand on their own merit. In addition to the general guidelines, the advisory group created a checklist of guiding principles for each group in the communications chain.

Dr. Johnson summarized the relevance of these guidelines, saying:

These guidelines can only make a difference if they don’t sit on a shelf. Putting these recommendations into practice just might make a difference in the public’s understanding of diet and health. I urge you to read them, share them, remember them and use them. After all, I think what the public wants is for us to be honest with each study as it comes along and try to put it into perspective, but keep reminding people that it’s the totality of the evidence as it unfolds that warrants their attention.

LITERATURE CITED