

Nutrition Information: The Media, Government Regulation and Consumer Knowledge

This paper presents an overview of four presentations forming part of a special invited paper session at the annual meetings of the American Council on Consumer Interests. The papers focused on the topic of how nutrition information is provided to and used by consumers in their food consumption decisions.

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The first paper in this special session, by Pappalardo² and Ringold,³ entitled "Evaluating 40 Years of Health Claim Regulation: An Analysis of Heart Disease Messages in Margarine and Oil Advertising" focused on how government regulation affected the flow of information about diet and heart disease in consumer advertising between 1950 and 1989. The study included a content analysis of 412 oil and margarine advertisements to determine how advertising messages changed after government articulated major policy positions regarding health claims in 1959, during the mid-1970s, and again in 1984. Their analysis attempted to determine whether changes in advertising content following regulatory events could be explained by changes in scientific support for the diet/heart disease hypothesis, or changes in demand for information.

Their data indicate that claims about diet and heart disease began to appear during the late 1950s when major studies linking fat composition, serum cholesterol and heart disease were published. Furthermore, their results suggest that government policies articulated in 1959 restricted the flow of information of explicit claims about cholesterol and heart disease for over a decade, while claims about saturated fat and polyunsaturated fat content continued. Articles discussing the diet/heart disease link continued to appear in the popular press, and a significant proportion of consumers had begun to modify their fat consumption during the 1960s.

Their hypothesis that heart disease related claims increased following changes in the regulatory climate in 1984 was supported in their data. The use of saturated fat and cholesterol claims increased during the 1980s, but results indicate a slowly growing, rather than an abrupt, change around the time of the new regulatory climate in 1984. The trend was found to coincide with growing support for the diet/heart disease hypothesis. However, they conclude that regulatory changes did account for a modest increase observed in the use of explicit heart disease claims during the post-1984 period.

In the second presentation by Rosemary Avery and Alan Mathios,⁴ entitled "Food and Nutrition Messages Communicated Through Prime-Time Television," they described a project currently being undertaken at Cornell University. The study focus is on nutritional messages conveyed via the medium of television. The motivation for the study is the belief that television educates consumers about food and nutrition through advertisements and program content, and that it contributes toward the establishment of norms regarding eating habits, appropriate foods to eat, when to eat, and body image. Previous research has found television to be one of the primary socializing agents in our society, and that television characters and families become strong role models for real life families. Other studies have found that many indirect messages about health are portrayed in the various lifestyles displayed in television programs, and that these lifestyles are imitated by viewers. Avery and Mathios note that these findings are particularly troublesome in the case of children who have been found to be unable to distinguish between television and reality. In addition, they note that health and nutrition messages conveyed via television are less than perfect, portraying an overabundance of fatty, unhealthy foods. The paradox is that television's portrayal of individuals emphasizes healthy and unreasonably thin body images.

The study being undertaken at Cornell University includes a content analysis of food and nutrition messages (verbal, visual and contextual stimuli) conveyed through prime-time television programming content. Both explicit (manifest) and implicit (latent) messages are being coded. The sample includes two weeks (fall, spring) of prime-time (7:00 to 11:00 p.m.) television on four networks (CBS, ABC, NBS, FOX). The researchers note that much of the effort on the project to date has been in the development of a research methodology (coding instrument) for capturing the complexities of implicit nutrition messages. They handed

out their coding instrument for comments from the audience.

The third paper, entitled "**Consumer Use of Food Labels: Impact of the New Food Labeling Regulations**," was presented by Alan Levy⁵ and Brenda Derby.⁶ The paper focused on information provided to consumers via food labels, using some preliminary results from the Food Label Use and Nutrition Education Survey completed during 1994. A major objective of the 1994 survey was to discriminate between different kinds of label uses and to identify which parts of the label were more or less likely to be used.

In terms of label usage, their results indicate that in 1994, 74 percent of the population said they sometimes or often read nutrition information on food labels. This number is unchanged from 1990 and has been around this level since the early 1980s. Looking more specifically at the period during which the Nutrition Labeling and Education Act (1990) took effect, the percentage of people who had seen the new food label increased from 30 percent in April to almost 50 percent in September. However, their data indicate that since 1990 the number of people who said they recalled an instance in the prior two weeks when they had read nutrition information on the food label which had changed what they bought or what they ate, increased from 30 percent in 1990 to 52 percent in 1994. In addition, they found that certain kinds of people were more likely to use food labels than others: women, college graduates, and middle-aged individuals.

By far the strongest predictor of label use behavior was found to be how strongly a person agreed with the importance of "risk factor" dietary messages. Results indicate that consumers clearly discriminate between different kinds of possible label uses. The most common use of labels was found to be in determining whether a food is high or low in specific nutrients. Macro-nutrient amounts, high/low/free descriptors and ingredient lists are the top-rated parts of the label used. Clearly, these are the parts of the label that are most relevant to making product specific judgments. Serving size and health claims were rated much lower in terms of how often they are used. The implication of these results is that the average consumer uses food labels primarily as a source of product-specific information in the service of product selection, not as a source of information about nutrition science or dietary guidance.

Further analyses confirm that people who are more likely to use food labels are mainly interested in product-specific information and making judgments about the product. These individuals are relatively less concerned about health claims or about vitamin and mineral information and they are not likely to use labels for meal planning. In contrast, the kinds of people less

likely to use food labels seem to have the opposite preferences. They are more likely to care about health claims, vitamin and mineral information, and they are more likely to have greater relative preference for dietary management food label uses.

Based on the results of their study, the authors express concern that food labels have limited potential as vehicles for nutrition education or dietary advice. On the other hand, they conclude that food labels are ideally suited to be effective tools that enable consumers to implement dietary beliefs they already hold. They note that the driving motivation for using food labels for many people seems to be concern about dietary risk factors, a concern which directs consumer attention primarily toward macro-nutrient information and content descriptors, but that also extends to other product specific information on the label. Concern about risk factors, however, does not seem to direct attention toward educational or dietary guidance messages on the food label. On the contrary it seems to focus attention on product-specific information to the exclusion of more general types of information (i.e., health claims) on the label. They note that for someone who is already concerned about risk factors, the kinds of health claims likely to be seen on food labels are likely to be familiar and offer little new or added value information to such consumers.

The fourth paper presented in this session, entitled "**Information and Public Policy: A Study of Trends in the Consumption of Fat, Saturated Fat and Cholesterol**" by Pauline Ippolito⁶ and Alan Mathios, examined changes in key aspects of the American diet (fat consumption) in an effort to understand more about the role of producers and the market, together with government and other general information sources, in helping consumers respond to diet-health knowledge. Their analysis focused on changes in fat and saturated fat consumption in the United States as information spread connecting these lipids to heart disease and cancer risks. Two regulatory regimes were examined; the years 1977-1985, when government and general sources of information sources continued their efforts to educate the public about the links between fats and disease risks, and the years 1985-1990 when the regulatory restrictions on producers were relaxed, allowing them greater freedom to use health claims in labeling and advertising.

Results from this study suggest that consumers reacted to information throughout the period but that the rate of change accelerated considerably after 1985, when producer health claims were added to the flow of information. In an effort to focus on why this acceleration might have occurred they examined consumption at a food-group level. Specifically, they examined the

hypothesis that, compared with government and general sources, producer provided information is better able to provide useful detailed information to identify marginal changes across and within a broad range of foods. Their results indicate that during the 1977-1985 period reductions in fat consumption were concentrated in largely the meat category with significant increases in fat consumption from other food groups. This change resulted in only a small overall decline in fat consumption during this period. In contrast, the larger overall reductions in fat that occurred during the health claims period were not focused on one or two food categories but were spread across a broad set of food groups. Ippolito and Mathios conclude from these data that advertising may play an important role in the spread of information, with significant effects on market behavior.

Endnotes

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