Developments in Nutritional Labeling

H. NEAL DUNNING
Branch of Food and Nutrition Resources
Food and Drug Administration
Washington, D.C. 20204

Increasing consumer awareness and activity are a social phenomenon of the 1970's. Large as the changes have been, it is likely that we have seen only the beginning of a major social change. A considerable part of this awareness has to do with the nation's food supply. This is a proper priority since the food supply is of primary importance to survival as well as to good living and good health.

Our time scales also are shifting. No longer is it sufficient to know that a food will not make us sick today, tomorrow or next week. Now we want to know how it will affect our declining years, our offspring and, indeed, how it will change the course of human heredity. Concisely, we are now interested in carcinogenicity, teratogenicity and mutagenicity. It is a mighty step to shift from the judgment of short-range effects to the measurement of those that may not develop for generations.

We must all consider carefully the size of the questions that are being asked about foods and food additives. We also must remember that many questions have practical, workable answers if they are asked in the light of reason. If they are asked with a demand for a precise, solid, forever-unerring answer, frequently there is no answer at all. The sea food industry is probably more aware of this than most others.

Rapidly changing life styles and technology provide both the need and the means for changing the food supply. Fast food service with advanced packaging and processing methods is one of the most rapidly developing areas. Strangely, an increase in institutional feeding often has been accompanied by a decrease in employees in the kitchen. This has been accomplished by portion packing, precooking, microwave ovens and increased sophistication of food manufacturers, distributors and the food service industry.

As the complexity of food technology increases, the need increases for relevant information. Programs for disseminating this information and for developing educational methods are needed. The Bureau of Foods is attempting to meet this need for increased consumer information and understanding by promulgating or revising various regulations on the labeling of different kinds of foods (Johnson, 1971; Wodicka, 1972). These include regulations on: iodized salt (3.87), hypoallergenic foods (125.9), sodium-controlled foods (125.9) and infant formulas (125.5).

Proposals for amending present regulations include those on: dietary supplements (80.1), foods for special dietary uses (125), fat and oil labeling (3.41 and 125.12), amino acids (121,1002), nutritional quality guidelines (100.1), frozen dinner guidelines (100.20) and nutrition labeling (1.8 and 1.16).

I have been urging more iodized salt. Here, at least, I don't need to do that. The supplementation of table salt with potassium iodide is a vital step in avoid-

ing iodine shortage. However, an increasingly large proportion of the food supply is prepared. This immediately raises the question of whether or not iodized salt should be used in prepared foods. Since people in institutions may eat an even larger proportion of manufactured foods, this question is even more vital for institutional food manufacturers than for those whose products are sold on the retail market. Certainly the cost of using iodized salt in manufactured foods is inconsequential. The presence of iodine might lead to a shorter shelf-life for some products. Thus, mandatory use of iodized salt in all prepared foods might be unwise. It probably is not necessary either if encouragement for the voluntary use of iodized salt leads to sufficient use in processed foods.

The proposal for fat labeling is an interesting one. First, it will provide data with which consumers can follow the recent recommendation of the Food and Nutrition Board and the Council on Foods and Nutrition of the American Medical Association (Anon. 1972). This group recommends increased consumption of polyunsaturated oils for those in "high risk" categories. There seems to be little argument that the consuming public associates "vegetable oil" with unsaturation. Thus it is necessary to develop a label so that fully saturated vegetable oils, such as palm kernel oil and coconut oil, will not be mistaken for "unsaturated oils." This is an interesting illustration of the need to go beyond purely factual labeling, such as percentage ingredient labeling, and to give more specific information to overcome public misunderstanding.

Some people associate prepackaged feeding with monotony of diet. This need not be the case, and usually is not. One small company of my acquaintance scooped the field in egg-custard mixes and successfully fought off competition. They accomplished this by providing excellent quality consistently. Proper use of labeling will permit the food service manufacturer to tell his story of quality and service. Now the "quality" story can include nutritional quality as well as good taste and good performance. The seafood and associated industries certainly have interesting nutritional stories to tell.

This article discusses nutritional labeling primarily, with comments on its application to the sea food industry. However, nutritional labeling is only part of an overall package (as listed above) that is designed to clarify and amplify the Federal Food, Drug and Cosmetic Act.

A major point of contention regarding the nutritional labeling proposal has been the so-called "negative labeling" provision. This provision stipulates that a group of seven of the nutrients must be listed, whether present or not. Industry strongly opposes listing zeroes or "insignificant" after nutrients not present. Many educators and consumer groups believe a standard format is required to help educate consumers and to let them know what they should look for in a given position. It appears that a compromise is needed here or the result will be promiscuous fortification to make the label look better. This, of course, would be highly undesirable.

Negative labeling is associated with the percentage interval selected for listing nutrients. For example, a food containing 2% of the selected standard for a given nutrient would be rated "insignificant" if a 5% cutoff is used. A 2% cutoff would permit listing some contribution for that nutrient. There are reasonable solutions to this specific problem.

Selection of the proper standard has been the subject of warm controversy. Unlike the negative labeling case, the lines are not clearly drawn. Almost all those knowledgeable in nutrition welcome the demise of the Minimum Daily Requirement values as hopelessly outdated. They also agree that a standard related to the Recommended Dietary Allowances (RDA) of the Food and Nutrition Board (Anon., 1968) should be used. But there the agreement ends. Should one or several standards be used? If one value is adopted, should it be a mean value, an average value or a single RDA value? If it is a single RDA value, should it represent the male or female? And if the adult value is selected, what about a standard for children? The possibilities are almost endless.

However when facing the basic issue – understanding by consumers – a single value is favored by most of the nutritional community. This was the view of the original proposal – to select a single value for each nutrient from the 1968 RDA. Careful comparison will show that the values selected are very similar to the RDA of the adult male, except that an allowance has been added for vitamin D, and the calcium and iron allowances have been increased. The aim here was straightforward: It should not be necessary to go over 100% for the nutrient need of any individual not pregnant or lactating. These values are allowances, not *Minimum Daily Requirements.* The question arises – what about children? Do they need these large amounts? No, in general they don't. But the housewife is used to serving larger portions to adults than those served to smaller children. This common practice then becomes a rather natural guide. It should be stressed that these are recommended optimums, but there is wide latitude before the rare case where toxicity occurs.

Then, the question arose, what should this standard be called? There also is considerable discussion over the proper method of referring to this standard. It is a complex question. The nomenclature should make it apparent to anyone using this standard that it is derived from the Food and Nutrition Board tables (Anon., 1968). Also, it is planned that this standard (whatever it is called) will be amended to coincide with any major changes in dietary allowances the Food and Nutrition Board makes. Similarity to RDA is necessary to show the origin of the standard, to give it proper standing in the nutritional community and to give the Food and Nutrition Board proper credit. Further, the nomenclature must be consistent with the proposals for special dietary foods.

I'm sure you are interested in the protein quality measures. From the many comments received, it is apparent that consumers in general fear that they will not be able to differentiate between what they believe is good protein and new protein sources. This fear must be dispelled; the development of new sources must not be impeded. It appears that some rough measure or definition of protein quality is needed.

Finally, many experts and officials express the belief that it is high time the Food and Drug Administration (FDA) got on with nutritional labeling. At the same time, several point out the necessity for allowance for change. This whole packet of regulations involves a massive change to the consumer and industry. It also requires a massive educational effort, for those doing the labeling as well as for those reading. Therefore, the process of labeling must be capable of improve-

ment as history indicates necessary. This is the reason that, to many difficult questions there is a reasonable answer, if that answer can change to reflect the changing times.

Although not explicitly stated, the nutritional labeling proposal deals mainly with the "consumer" and retail packaging. However, as noted in the introduction, an increasingly large proportion of meals are eaten in restaurants, cafeterias or institutions. The diets of some of the people eating such meals are proportioned by dietitians. Effective food service organizations are familiar with the needs of these professionals and are improving their service accordingly. This leaves the other food service organizations with whom many of the seafood industry deal and whose labels generally "stop in the kitchen." What can they do? There is very little they can't do so long as their food products are clearly and correctly labeled within the spirit and meaning of the Federal Food, Drug and Cosmetic Act. This area has not been a major concern of the Nutrition Division of the FDA because the institutional "buyer" often is quite well informed. This is not always true of course. Further the specialist may feel much more pressure for excellence in flavor or functionality rather than nutrition. Certainly an industry must sell what its customers want. However, many restaurants offer a "diet special" – usually restricted in calories and high in protein. Awareness of nutrition is increasing dramatically – the nutritional labeling proposal received over 3,100 replies. The use of nutrition to motivate sales also is increasing. The real value of such methods will depend upon the ingenuity and validity of the nutritional concepts on which they are based.

LITERATURE CITED

Anon.
1968. Recommended Dietary Allowances. Seventh Edition, 1968, National Academy of Sciences, Washington, D.C., 101 p.

Anon.
1972. Diet and Coronary Heart Disease. Joint Statement of the Food and Nutrition Board, Division of Biology and Agriculture, National Academy of Sciences, National Research Council, and the Council on Foods and Nutrition, American Medical Association, Washington, D.C., June, 1972.

Johnson, Ogden C.
1971. Nutritional Labeling, Guidelines and Food Fortification. 75th Ann. Conf., Assoc. of Food and Drug Officials of the U.S., Columbus, Oh., June 23, 1971.

Wodicka, Virgil O.
1972. The Current Status of Food Regulation. Food and Drug Administration Papers, March 1972, p. 10-16.