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## Commentary

Marion Nestle\*

*Department of Nutrition and Food Studies, New York University, 35 West 4th Street, 10th Floor, New York, NY 10012-1172, USA*

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### Abstract

Inherent in the term 'consumer' is the act of buying foods as well as eating them. In a free market economy, foods must be profitable as well as nutritious. The *Dietary Guidelines for Americans* have profound economic implications; they can affect food sales and can also be used as a marketing tool. These consequences constitute a primary reason why dietary guidelines are worded so carefully. © 1999 Elsevier Science Ltd. All rights reserved.

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The 1995 edition of the *Dietary Guidelines* states: eat a variety of foods; balance the food you eat with physical activity—maintain or improve your weight; choose a diet with plenty of grain products, vegetables, and fruits; choose a diet low in fat, saturated fat, and cholesterol; choose a diet moderate in sugars; choose a diet moderate in salt and sodium; if you drink alcoholic beverages, do so in moderation (USDA/USDHHS, 1995). Issued every 5 years since 1980, and required by Congress since 1990, the *Dietary Guidelines* is an official statement of federal dietary guidance policy that governs nutrition policy and education activities.

The separate precepts in the *Guidelines* are intended to be followed as a whole, and they define a distinct dietary pattern. When translated into food choices, this pattern derives most daily energy from grains, vegetables, and fruits, with less energy from meat and dairy foods, and even less from fats and sweets. The familiar *Food Guide Pyramid* (USDA, 1992) illustrates this pattern and makes the hierarchical relationships among the food groups quite explicit (Nestle, 1998a). People are sup-

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\* Tel: + 1-212-998-5595; fax: + 1-212-995-4194; e-mail: marion.nestle@nyu.edu

posed to eat more of foods from the base of the pyramid (the plant food groups) but to eat less of foods from the upper sections (meat, dairy, and processed foods).

It is thus no accident that most of the dietary guidelines are expressed in terms of nutrients, not foods. They refer to fat, saturated fat, and cholesterol, not to the primary food sources of these nutrients—meat, dairy, and fried foods, for example, and to salt and sugar, not to corn chips or soft drinks. Indeed, the one guideline expressed in food terms—grain products, vegetables, and fruits—is the only one to recommend 'eat more'. The others imply 'eat less'. Other terms in the *Dietary Guidelines* also require deconstruction, as shown in Table 1.

Any suggestion to eat less of a food or food group is certain to elicit protests from its producers, and the history of dietary recommendations includes many examples of such opposition, most recently to the *Food Guide Pyramid*. Because of the ambiguous nature of much nutrition research, some scientists have joined food producers in arguing that 'eat less' dietary guidelines are insufficiently supported by the evidence, inappropriate for the general public, intrusive on the personal choices of individuals, and economically unjustified (Nestle and Porter, 1990). Decades of research, however, confirm the health benefits of dietary patterns that follow the *Dietary Guidelines* (National Research Council, 1989a; McGinnis and Foege, 1993; WCRF/AICR, 1997; USDHHS, 1998).

The economic issues, therefore, underlie food industry concerns. Food and beverage marketing sales in the United States earned US\$890 billion in 1996, of which nearly half was spent on meals and drinks consumed outside the home. This amount reflected the typical growth rate of about 1% (Gallo, 1998). The food supply provided 3800 kcal/day (18.2 MJ) for every man, woman, and child in the country, an increase of 500 kcal/day (2.0 MJ) since 1970 (Putnam and Allshouse, 1997). This level is nearly twice the amount needed to meet the energy requirements of most women, one-third more than that needed by most men, and far higher than that needed by babies and young children (National Research Council, 1989b). These figures alone describe a fiercely competitive but slow-growing food marketplace, one in which food companies compete to sell more of more profitable foods.

In 1995, only 20% of food expenditures (the 'farm value') went to food producers; the remaining 80% constituted added value in the form of labor, packaging, transport-

Table 1  
Dietary guidelines for Americans: clarification of terms

Term*	Translation
Moderate	Eat less
Plenty	Eat more
Variety	Eat foods low in fat, saturated fat, cholesterol, sugar, and salt
Grains, vegetables, fruits	Eat a largely plant-based diet
2-3 servings of meat/day	Eat less red meat
2-3 servings of dairy/day	Eat less high-fat dairy products

\*From USDA/USDHHS, 1995.

tation, advertising, and profit. Because value-added products are more profitable than farm products, US food manufacturers introduce large numbers of new food products into the marketplace each year—13 200 in 1996. Three-quarters of these new food products were candies, condiments, breakfast cereals, beverages, bakery products, and dairy products (Gallo, 1998). The current food marketplace includes 240 000 packaged foods from US manufacturers alone (USDA, 1996). These and other foods are advertised through more than US\$11 billion spent annually on electronic and print media, and another US\$22 billion or so on coupons, games, incentives, trade shows, and discounts (Gallo, 1998). In 1997, advertising for a typical candy bar required a US\$25–70 million expenditure, and for McDonald's nearly a billion dollars (Advertising Age, 1998). Such figures are vastly in excess of the US Department of Agriculture's (USDA) controversial one-million-dollar investment in research and development for the *Food Guide Pyramid* (Nestle, 1993) and its even smaller annual promotion budget.

The purpose of food advertising is to encourage people to substitute one product for another and to eat more, not less. This purpose can also be adopted for more healthful foods. Recently, researchers have shown that in one community, an intensive media campaign accompanied by educational efforts induced people to substitute low-fat or skim milk for whole milk. The campaign cost US\$60 000, of which US\$24 000—slightly less than a dollar per person—was spent for paid advertising. It demonstrated that advertising is so affordable, far-reaching, and effective in promoting dietary change that it can substitute for more expensive, labor-intensive educational programs (Reger et al., 1998).

Numerous, small-scale education programs have improved dietary knowledge, attitudes and behavior, especially when their methods were simple, easy to follow, and repeated frequently (Contento et al., 1995). Using advertising to alter dietary patterns presents a challenge, however, because it requires a financial commitment vastly beyond the funding capability of any federal or private group. Even a dollar per person for advertising requires US\$260 million for the entire population, an amount both politically and fiscally unrealistic.

Likely to be more feasible are alterations in federal policies targeted to promote desirable dietary changes. It is quite possible to imagine encouraging a reduction in saturated fat intake, for example, through modifications in current policies: dairy price supports, meat standards, food labels, school meals, generic marketing programs, television advertising, research support, and educational programs (Nestle, 1998b). Suggesting changes in these policies is not meant to advocate the intrusion of government into personal food choices. Instead, its purpose is to demonstrate that such policies *already exist* and could well be modified to promote more healthful dietary patterns rather than the economic interests of the food industry.

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