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Article in *International Journal of Health Services* · February 1993

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**FOOD LOBBIES, THE FOOD PYRAMID,
AND U.S. NUTRITION POLICY**

Marion Nestle

The U.S. Department of Agriculture's 1991 withdrawal of its *Eating Right Pyramid* food guide in response to pressure from meat and dairy producers was only the latest in a long series of industry attempts to influence federal dietary recommendations. Such attempts began when diet-related health problems in the United States shifted in prevalence from nutrient deficiencies to chronic diseases, and dietary advice shifted from "eat more" to "eat less." The *Pyramid* controversy focuses attention on the conflict between federal protection of the rights of food lobbyists to act in their own self-interest, and federal responsibility to promote the nutritional health of the public. Since 1977, for example, under pressure from meat producers, federal dietary advice has evolved from "decrease consumption of meat" to "have two or three (daily) servings." Thus, this recent incident also highlights the inherent conflict of interest in the Department of Agriculture's dual mandates to promote U.S. agricultural products and to advise the public about healthy food choices.

In April 1991, the U.S. Department of Agriculture (USDA) halted publication of its *Eating Right Pyramid*, a new guide to help the public select foods that would help reduce dietary risk factors for chronic diseases. Despite official explanations that the guide required further research and testing, its withdrawal was widely viewed as having been prompted by pressure from meat and dairy lobbying groups that objected to the way its design displayed their products (1-3). The guide was finally released almost exactly one year later after its content was supported by additional research and its graphic design altered to appease industry concerns (4).

This incident was only the latest in a long series of attempts by the food industry to influence federal dietary recommendations, but it focused renewed attention on a continuing dilemma in U.S. government: the conflict created when federal agencies responsible for the protection of public interests are also responsive to the lobbying efforts of private businesses acting on their own behalf. In the case of the *Pyramid*, the right of food lobbying groups to act in their own economic self-interest came into conflict with federal activities designed to improve the

nutritional health of the public. The *Pyramid* controversy also demonstrated the potential conflict of interest posed by the dual mandates assigned to the USDA by Congress to protect U.S. agricultural interests and to advise the public about food choices.

To illustrate issues related to this dilemma, and to stimulate development of ways to ensure that U.S. nutrition policies are based on science rather than politics, this article reviews examples of incidents in which meat and dairy producer lobbies have influenced—or have attempted to influence—federal dietary recommendations for chronic disease prevention.

U.S. DIETARY GUIDANCE POLICY

The antecedents of the current controversy can be traced to the two roles assigned to the USDA when it was established in 1862: to ensure a sufficient and reliable food supply and to provide to the public useful information on subjects related to agriculture (5). These roles were viewed as complementary. Increased consumption of U.S. agricultural products also was expected to improve the health of the public.

The USDA's first dietary recommendations for adults, issued in 1917, established principles that govern the agency's nutrition policies to this day. The USDA recommended no specific foods or combination of foods. Instead, it grouped foods of similar nutrient content into five broad categories: fruits and vegetables, meats, cereals, sugar, and fat (6). A 1923 publication, noting that any food could contribute to wholesome and attractive diets, explicitly encouraged consumers to purchase foods from the full range of U.S. farm products (7).

This approach was supported by food and agricultural producers who were aware that the market for their products was limited. By 1909, the U.S. food supply already provided 3,500 kilocalories per capita (8), nearly twice the amount of daily energy needed by an average female adult and a third higher than that needed by an average male (9). A choice of any one food commodity necessarily would exclude others (10).

During the next 35 years, the USDA produced many more pamphlets based on the food group approach, all emphasizing the need to consume foods from certain "protective" groups in order to prevent deficiencies of essential nutrients (11). The number of recommended food groups varied from five to 12 over the years, however, in no particular order (12).

Prevention of Deficiencies: The Basic Four

In the early 1950s, national surveys indicated that the diets of certain groups of low-income Americans were below standard for several nutrients. To help the public choose foods that would help prevent nutrient deficiencies, the USDA developed a simplified guide based on just four groups—milk, meats, vegetables

and fruits, and breads and cereals—which specified, for the first time, the number and size of servings. This publication, usually referred to as the *Basic Four* (13), remained the basis of USDA nutrition education efforts for the next 20 years.

During preparation of the *Basic Four*, the agency invited leading nutrition authorities, including food industry representatives, to review it, noting that “food industry groups would have a vital interest in any food guide sponsored by the government” (14). Despite concerns about the small serving size of the meat recommendations (two portions daily of two to three ounces), the food industry supported the guide, and the National Dairy Council, capitalizing on the prominent position of the milk group, distributed its own version as a public service (15).

Chronic Disease Prevention

Food industry support for dietary recommendations waned, however, when the focus of dietary recommendations shifted from avoidance of nutrient deficiencies to prevention of chronic diseases. As nutritional deficiencies declined in importance as public health problems, they were replaced by diet-related chronic diseases such as coronary heart disease, certain cancers, diabetes, stroke, and others that had become leading causes of death and disability. Early reports on the role of dietary fat in atherosclerosis, for example, were published in the mid-1950s (16), advice to reduce caloric intake from fat in 1961 (17), and recommendations for dietary changes and public policies to reduce coronary heart disease risk factors in 1970 (18). These last recommendations called for significant reductions in overall consumption of fat (to 35 percent of calories or less), saturated fat (to 10 percent), and cholesterol (to 300 milligrams per day)—advice quite similar to that given today.

The 1977 Farm Bill (Public Law 95-113) specified that the USDA was to assume responsibility for a wide range of nutrition research and education activities, including dietary advice to the public. In 1988, in an effort to ensure that the federal government speak with “one voice” about diet and health, the House Appropriations Committee reaffirmed the USDA’s lead agency responsibility for this activity (19). As dietary recommendations shifted from “eat more” to “eat less,” the USDA’s dual mandates to protect agricultural producers and to advise the public about diet created increasing levels of conflict.

Although this conflict was due in part to concerns about the scientific validity of diet-disease relationships, it also derived from the profound economic implications of the new dietary recommendations (20). Foods of animal origin—meat, dairy, and eggs—together provide nearly 45 percent of the total fat, 60 percent of the saturated fat, and all of the cholesterol in the U.S. food supply (21). Thus, advice to consume less fat and cholesterol necessarily translates into reduced intake of animal products. By 1977, this message was well understood by consumers (22) and was reflected in declining sales of whole milk and eggs (23). As

these downward trends continued, and as beef sales also began to decline, food producer lobbies became much more actively involved in attempts to discredit, weaken, or eliminate dietary recommendations that suggested using less of their products.

LOBBIES AND LOBBYISTS

Lobbying includes any legal attempt by individuals or groups to influence government policy or action; this definition specifically excludes bribery. Because attempts to control such pressures have been viewed by corporations and by legislatures as infringements of basic rights, Congress has found it difficult to draft regulations acceptable to its members and their constituencies (24). At present, lobbying is regulated entirely by an Act that was passed in 1946, amended once in 1954, and used only once—in 1959—to convict an abuser of the system (25). As a result, the Act simply requires individuals or groups who lobby members of Congress to report their identities and sources of funds (26). Virtually all authorities consider even these modest requirements to be widely ignored and incapable of being enforced (27). Nevertheless, about 8,000 individuals currently register as lobbyists; among these, perhaps 5 percent represent food companies (28).

The relationship between food lobbies, the USDA, and Congress has long been a source of concern. Prior to the 1970s, food producers, USDA officials, and members of the House and Senate Agriculture Committees were so interconnected that they were said to constitute an "agricultural establishment" constituted to guarantee that federal policies would support the interests of food producers (29). The perpetuation of this system was assured by the Congressional seniority system and the strong representation on Agriculture committees of members from farm states. Jamie Whitten (D-Miss.), for example chaired the House Agricultural Appropriations Subcommittee for so long that he was referred to as the "permanent Secretary of Agriculture" (30); his 26-term career in Congress began under President F. D. Roosevelt.

This system weakened as new constituencies demanded influence on agriculture policies. The development of these constituencies was stimulated by the increasing importance of agriculture in the U.S. economy, the expansion of the food industry to include processors and marketers as well as producers (30), and the assignment to the USDA of the additional responsibility for food assistance to the poor (31). The number and composition of food lobbying groups expanded to reflect these changes (32).

Today, food lobbies include a multiplicity of groups, businesses, and individuals attempting to influence federal decisions. Table 1 provides a partial list of the most powerful of such groups. Food lobbies are not equal in influence. For the most part, food producers and commodity associations are much better funded than advocacy groups, for example. Beef and dairy lobbies are especially

Table 1

Selected examples of lobbying groups with interests in food and nutrition issues (28, 32, 33)

<i>Commodity Producer Organizations</i>	American Meat Institute
American Soybean Association	Chocolate Manufacturer's Association of the U.S.A.
American Sugar Beet Growers Association	Corn Refiners Association
Florida Sugar Cane League	Food Marketing Institute
National Association of Wheat Growers	Grocery Manufacturers of America
National Broiler Council	National Food Processors Association
National Cattlemen's Association	National Frozen Food Association
National Corn Growers Association	National Soft Drink Association
National Fisheries Institute	Peanut Butter and Nut Processor's Association
National Milk Producers' Federation	
National Peanut Growers Group	<i>Private Food Producers</i>
National Pork Producers Council	Cargill
Rice Millers' Association	ConAgra
United Egg Producers	Archer-Daniels-Midland
United Fresh Fruit and Vegetable Association	Mars
	Pizza Hut
<i>Processing, Manufacturing, and Marketing Organizations</i>	Safeway Stores
American Frozen Food Institute	Ralston-Purina

influential; they are well funded and distributed among a great many states, each with its own representatives in the House and Senate (33).

FOOD LOBBIES AND DIETARY RECOMMENDATIONS

Dietary Goals for the United States

In the early 1970s, staff of the Senate Select Committee on Nutrition and Human Needs, chaired by George McGovern (D.-S.D.), held a series of hearings on associations between dietary factors and chronic diseases, and produced a report on diet-disease relationships (34). These efforts led to the publication in February 1977 of the staff report, *Dietary Goals for the United States*, the first dietary recommendations for chronic disease prevention produced by a federal agency (35). Consistent with the earlier American Heart Association recommendations, this report established six goals for dietary change: increase carbohydrate intake to 55 to 60 percent of calories; decrease fat to 30 percent, saturated fat to 10 percent, and sugar to 15 percent of calories; reduce cholesterol to 300 milligrams per day; and reduce salt to three grams per day. To achieve these goals, the

Committee advised an increase in consumption of fruits, vegetables, whole grains, poultry, and fish; a decrease in consumption of meat, eggs, butterfat, and foods high in fat; and substitution of nonfat for whole milk.

Many groups objected to one or another of these recommendations, but the advice to decrease intake of specific high-fat foods brought immediate protest from the groups most affected—cattlemen and dairy and egg farmers. Meat and egg producers demanded and obtained additional hearings to express their views. These hearings were notable for their explicit statements of self-interest. A National Cattlemen's Association representative, for example, stated that the term "decrease" with respect to meat consumption should be considered a "bad word" (36).

Members of the Select Committee representing states with large meat, dairy, and egg producer constituencies demanded changes in the *Dietary Goals*, and Senator McGovern was quoted as saying that "he did not want to disrupt the economic situation of the meat industry and engage in a battle with that industry that we could not win" (37). Therefore, the Committee revised the report and published a second edition in which, among other changes, the original statement, "Decrease consumption of meat and increase consumption of poultry and fish" (35, p. 13) was altered to read, "Decrease consumption of animal fat, and choose meats, poultry, and fish which will reduce saturated fat intake" (38). These and later recommendations to reduce dietary fat through changes in meat consumption are summarized in Table 2.

Despite such compromises, the *Dietary Goals* established the basis of all subsequent federal recommendations and altered the course of nutrition education in the United States. This contribution, however, was the Select Committee's last. Shortly after release of the revised report, the Committee's functions were transferred to a Nutrition Subcommittee of the newly constituted Committee on Agriculture, Nutrition, and Forestry (39). McGovern lost his bid for reelection in 1980.

Healthy People

In 1979, in response to an emerging consensus among scientists and health authorities that national health priorities should emphasize disease prevention, the Department of Health, Education, and Welfare (DHEW) issued *Healthy People*, a report announcing goals for a ten-year plan to reduce controllable health risks (40). In its section on nutrition, the report recommended diets with fewer calories; less saturated fat, cholesterol, salt, and sugar; relatively more complex carbohydrates, fish, and poultry; and less red meat. Noting that more than half the diet consisted of processed foods rather than fresh agricultural produce, the text suggested that consumers pay closer attention to the nutritional qualities of processed foods.

Table 2

Evolution of federal recommendations to reduce dietary fat through changes in meat consumption		
Year	Report; Agency (reference)	Recommendation
1977	<i>Dietary Goals</i> ; U.S. Senate (35)	Decrease consumption of meat.
1977	<i>Dietary Goals</i> , Ed. 2; U.S. Senate (38)	Choose meats . . . which will reduce saturated fat intake.
1979	<i>Healthy People</i> ; DHEW (40)	Relatively . . . less red meat.
1979	<i>Food</i> ; USDA (44)	Cut down on fatty meats (two servings of 2–3 ounces each).
1980	<i>Dietary Guidelines</i> ; USDA and DHEW (48)	Choose lean meat.
1985	<i>Dietary Guidelines</i> , Ed. 2; USDA and DHHS (52)	Choose lean meat.
1988	<i>Surgeon General's Report on Nutrition and Health</i> ; DHHS (55)	Choose lean meats.
1990	<i>Dietary Guidelines</i> , Ed. 3; USDA and DHHS (59)	Have two or three servings, with a daily total of about six ounces.
1992	<i>Food Guide Pyramid</i> , USDA (66)	Suggests two to three servings . . . should be the equivalent of 5–7 ounces of cooked lean meat.

Although dietary advice to restrict red meat and be wary of processed foods was certain to attract notice, *Healthy People* was released without a press conference in July 1979 as one of the final official acts of Joseph Califano, who had been dismissed from his position as DHEW Secretary by President Carter the month before. Nevertheless, the report elicited a “storm of protest” from food producers. The National Cattlemen’s Association complained that “the diet-fat-cholesterol-heart disease hypothesis is not scientifically valid . . . recommendations that red meat consumption be reduced are not without risk to millions of Americans.” Representatives of the meat, dairy, and egg industries offered to fund research to counter what was perceived as a growing scientific threat to the economic security of their industries (41). *Healthy People* became the last federal publication to use the words “eat less” when referring to meat (Table 2).

USDA's Food Book

In the late 1970s, certain USDA nutritionists judged diets that met the *Dietary Goals* to be “so disruptive to usual food patterns” (42, p. 81) that this advice would require an adult man to consume 13 slices of bread each day (43). To help consumers make more reasonable health-promoting food choices, the USDA initiated a series of publications under the generic title *Food*. The first of these publications presented a revised version of the *Basic Four* in which the food groups were displayed in a vertical column with the vegetable/fruit group on top and the bread/cereal, dairy, and meat groups in successively lower bands. This revision also included a fifth group of foods that are high in energy but contain few essential nutrients—fats/sweets/alcohol—at the very bottom. To reduce fat intake, the guide advised, “cut down on fatty meats” (44).

Food was the most requested USDA publication in 1979 (45). After the 1980 election, however, under pressure from representatives of the meat, dairy, and egg industries who objected both to the advice to reduce fat and cholesterol and to the placement of their products below fruits, vegetables, and grains, USDA officials decided to delete the chapter on fat and cholesterol from what was expected to be the second publication in the series, *Food II* (46). Ultimately, the USDA decided against proceeding with the series and, instead, gave the completed page boards to the American Dietetic Association, which published them as two separate booklets in 1982 (47). As illustrated in Table 2, *Food* became the last federal publication to use the phrase “cut down” in reference to meat.

1980 Dietary Guidelines

In February 1980, the USDA and DHEW announced joint publication of the *Dietary Guidelines for Americans* (48). These advised: eat a variety of foods; maintain ideal weight; avoid too much fat, saturated fat, and cholesterol; eat foods with adequate starch and fiber; avoid too much sugar; avoid too much sodium; if you drink alcohol, do so in moderation. Because this publication had replaced the unacceptable “eat less” phrases with “avoid too much,” agency officials did not expect objections from food producers. Indeed, the Food Marketing Institutes issued a statement that the *Guidelines* are “simple, reasonable and offer great freedom of choice,” and the American Meat Institute called them “helpful,” noting that they provide “a continuing and central role for meat.” Producers of meat and other foods, however, found even these mild recommendations too extreme. They lobbied Congress to end funding for the *Guidelines* and demanded—and obtained—hearings on the matter (49). These efforts succeeded. Shortly after the 1980 election, but before the Reagan administration assumed office, Congress instructed the USDA to establish a joint committee to revise the recommendations with what was by then called the Department of Health and Human Services (DHHS).

At this point, the demise of the *Dietary Guidelines* seemed virtually assured. The new USDA Secretary, John Block, had remarked during his confirmation hearings that he was "not so sure government should get into telling people what they should or shouldn't eat" (50), and one of his first acts had been to close a USDA human nutrition research unit remarkable for its linking of study results to dietary guidance policy (49).

1985 Dietary Guidelines

When the committee to revise the *Dietary Guidelines* was finally appointed, five of the six USDA nominees were closely connected to the food industry (51). To the surprise of critics, however, the joint committee eventually made only minor changes in the 1980 text, and USDA Secretary Block, joined by the National Cattlemen's Association, endorsed the new edition (52), admitting that, "all of us have changed in our thinking" (53).

This change in views was due principally to increasing consensus on the scientific basis of diet and disease relationships, as expressed in three comprehensive reviews of relevant research released in 1988 and 1989 (54–56). These reports identified reduction of fat—particularly saturated fat—as the primary dietary priority, and recommended an overall reduction in fat intake to 30 percent of calories or less. Because none of the reports elicited much critical comment, consensus on dietary recommendations appeared to have been achieved (57).

1990 Dietary Guidelines

Despite the apparent consensus on diet–disease relationships, USDA officials argued that research since 1985 established a need to reexamine the *Dietary Guidelines*. A new joint committee with DHHS was appointed, consisting of nutrition scientists and physicians with few apparent food industry connections. Of 13 groups who submitted written comments during committee deliberations, however, ten represented food producers, trade associations, or organizations allied with industry (58).

The third edition of the *Dietary Guidelines* (59) revealed that the current consensus had been achieved at a price. To address concerns that the public increasingly perceived certain foods as "bad" and unfit for inclusion in healthy diets, the committee altered the phrasing of the specific guidelines to make their tone more positive. For the phrase, "avoid too much . . .," the committee substituted, "choose a diet low in. . . ." For the phrase "choose lean meat . . .," it substituted, "have two or three servings of meat . . . with a daily total of about 6 ounces" (59, p. 17).

The new publication did suggest upper limits of 30 percent of calories from fat and 10 percent from saturated fat, similar to limits suggested by the American Heart Association in 1970 and the *Dietary Goals* of 1977. Lest these figures

appear too restrictive, however, the new *Guidelines* emphasized that the “goals for fats apply to the diet over several days, not to a single meal or food.” The text noted that “Some foods that contain fat, saturated fat, and cholesterol, such as meats, milk, cheese, and eggs, also contain high-quality protein and are our best sources of certain vitamins and minerals.” Unlike the previous two editions, the 1990 *Dietary Guidelines* elicited no noticeable complaints from food producers.

The Food Guide Pyramid

In the early 1980s, USDA nutritionists identified a need for a food guide that would specify the numbers and sizes of food servings needed to meet the recommendations of the *Dietary Guidelines*. They developed a preliminary version of this guide in a wheel format for use in an American Red Cross course in 1984 (60), but food industry experts objected to the study guides prepared for the course and requested extensive changes in the text (61). For this reason, and because the wheel design did not convey new information to the public, USDA staff initiated a consumer research study to identify a more useful format. This research demonstrated that consumers preferred a triangular (“pyramid”) shape that displays the food groups in bands, with grains and cereals at the wide base, vegetables and fruits in the band above, then meat and dairy foods, and, finally, fats and sweets in the narrow peak. Unlike earlier graphic designs, this format clearly conveyed the message that the daily diet should include more servings of grains, fruits, and vegetables than of meats, dairy products, and fats and sweets (62).

Preparation of the *Pyramid* brochure began in 1988. During the next two years, these materials were reviewed extensively, publicized widely, and fully cleared for publication; they were sent to the printer in February 1991 (63). In April, representatives of the National Cattlemen’s Association saw a *Washington Post* report on the guide (64) and joined other producer groups in protesting that the guide stigmatized their products and should be withdrawn. Two weeks later, the newly appointed USDA Secretary, Edward Madigan, announced that the *Pyramid* required further testing on children and poorly educated adults, and postponed its publication. His explanation for this decision, however, was widely disbelieved (1–3, 63).

During the subsequent year, the USDA issued a new contract, reportedly at an additional cost of \$855,000 (4), to test alternative designs on children and low-income adults. Eventually, this research confirmed consumer preferences for the *Pyramid* over a runner-up bowl design preferred by meat and dairy producers (62, 65). One year and one day after withdrawing it from publication, the USDA finally released the revised *Food Guide Pyramid* (66). In a change that pleased food producers, the design had been modified to emphasize that two to three daily portions of meat and dairy foods were still recommended (4), just as they had been since 1958 (13). Ironically, the *Pyramid* had actually increased the upper range of the meat recommendation; its text calls for daily consumption of an amount

equivalent to five to seven ounces rather than the six ounces recommended in the 1990 *Dietary Guidelines* (see Table 2).

POLICY IMPLICATIONS

One view of lobbying is that it is a healthy influence within the political system that keeps Congress informed about issues, stimulates public debate, and encourages participation in the political process. From this perspective, lobbyists are unlikely to have much ability to inappropriately influence public policy decisions (24).

More critical analysts view lobbying as a far less benign activity (27). The recent history of dietary guidance policy demonstrates an increasing involvement of certain food lobbies—and the incorporation of their views—into federal recommendations to reduce dietary risk factors for chronic disease. In 1956, USDA staff drafted the *Basic Four* and, as a courtesy, permitted industry representatives to review it. Since 1980, however, food industry representatives have routinely participated in the development and review of dietary guidance materials. This change in role occurred as dietary recommendations shifted in focus from prevention of nutrient deficiencies (“eat more”) to prevention of chronic diseases (“eat less”) and as food producers more vigorously defended their products against the new advice.

Through their connections in Congress and the USDA, food lobbies have successfully convinced government policymakers to alter advice about meat, a principal source of dietary fat, from “eat less” to “choose lean” to “have two to three servings” (Table 2). Yet, these policy shifts have occurred just as nutrition scientists were reaching consensus that reduced fat intake would improve the health of the public (54, 56), were admitting that the 30 percent target recommendation for energy from fat is a compromise figure based on political realities, and were beginning to recommend a level of 20 to 25 percent as more consistent with the research evidence (67, 68). Given the contradiction between the scientific consensus and federal advice, it is little wonder that Americans are failing to reduce their fat intake significantly (23) and that the need for effective strategies to implement dietary recommendations has become the paramount concern of policymakers (57).

It must be emphasized that lobbying activities are entirely legal and available to consumer groups as well as to food producers. It should be clear, however, that the playing field is not level; food producers possess far greater resources for lobbying activities than do consumers. As one commentator stated long ago, it is unfortunate that “good advice about nutrition conflicts with the interests of many big industries, each of which has more lobbying power than all the public-interest groups combined” (69).

That food lobbies employ legal methods is not sufficient to justify their use of power based on economic and political influence rather than the merit of their views. The controversy over the *Food Guide Pyramid* demonstrates that the

connections between members of Congress, USDA officials, and food lobbies must continue to raise questions about the ability of federal officials to make independent policy decisions.

Individuals concerned about such issues might consider whether conflicts of interest have so impaired the USDA's ability to educate the public about diet and health that such functions should be transferred to a unit less tied to food industry groups. Also worth consideration are more forceful advocacy of consumer perspectives to Congress, reform of lobbying laws and election campaign funding practices, and public education about the extent of lobbying influence. What is at stake here is no less than the health of the public, an issue of vital importance at any time but of particular concern during this era of health care cost containment.

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