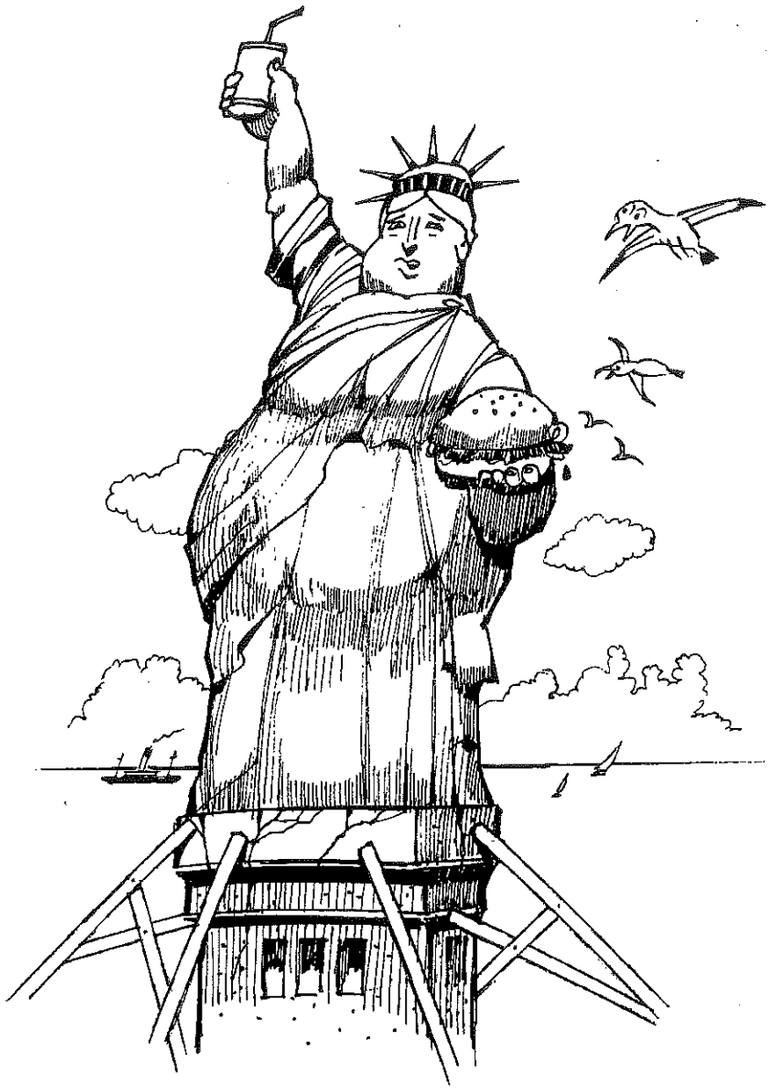
THE STATUE OF OBESITY



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Health, Diet, and the Politics of Dietary Guidelines: Commentary

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There is little question that the public is extremely confused about diet and health. People are bombarded by information about food and nutrition, particularly in regard to the purported dangers of single food components, from many sources. Media producers are eager to promote reader interest by generating controversy; they especially focus on arguments about the risks and benefits of one or another food component. Food companies are eager to use the latest research results to generate a larger market for their products. In this situation, governments have nowhere near the resources necessary to put new research findings in context and to counter the effects of misleading statements about diet and health, or misleading food marketing.

Canada is not immune from such problems. The Canadian Food Guide is currently under revision to make it more useful for diverse groups in the population. The current food guide, a rainbow in which bands of different colors represent the various

food groups, is directed toward improving the diet of the population as a whole.[1] As such, it constitutes public health advice meant to apply to everyone in the population. One of its strengths is that its design is hierarchical. Visually, it conveys the impression that it is better for health to eat more of some foods than others.

In this respect, it differs from food guides directed toward individuals, such as those issued in France.[2] The French guides appear in multiple versions aimed at segments of the population with differing characteristics. The advice differs for people whose primary interests in food are, for example, in health, in dining out frequently, or in eating snacks all day.

As it happens, the French food guides are at the leading edge of current trends in the field of nutrition toward increasing individualization and complexity of dietary advice. These trends increasingly reject public health approaches to dietary advice in favor of advice based on individual genetic and behavioral characteristics. These trends are especially evident in the U.S., where dietary guidelines and food guides now focus almost exclusively on individual dietary behavior. As I will explain, one result of this trend is to make dietary advice far more complicated than is necessary or desirable.

In the U.S., the development of dietary advice is a three-step process. It begins with the development of Dietary Reference Intakes (DRIs), standards for dietary adequacy in the population.[3] These are established at levels adequate to meet the needs of practically everyone in the population and, as such, are higher than average needs. Based on the DRIs, the U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) jointly develop Dietary Guidelines for Americans. In the past, the guidelines were meant to be a declaration of federal nutrition policy—the principles of healthful diets for the U.S. population; they have been issued every five years since 1980.[4] In the third step, the USDA develops a food guide designed to implement the Dietary Guidelines; this agency issued a Food Guide Pyramid in 1992, and revised it slightly 1996.[5] In 2005, it issued a new version, MyPyramid.[6]

The 2005 Dietary Guidelines and MyPyramid marked a sharp departure from previous U.S. dietary advice, which applied to everyone in the population over two years of age and were developed as public health recommendations. The new versions, as I will soon explain, apply to individuals with differing energy needs.

In some ways, the new dietary advice is less useful than the former advice. This is especially the case with the pyramid. The old pyramid is gone now, may it rest in peace, and I mourn its passing. Two of its features were especially useful. The first is its hierarchical design. The 1992 pyramid was deliberately designed to convey the idea that some food groups are better for health than others. Healthier diets were to consist of more foods from the grain group (6 to 11 daily servings) than from the fruit group (2 to 4 servings per day), vegetable group (3 to 5 servings per day), or meat or dairy groups (2 to 3 daily servings). The design indicated that healthier choices would come from the broad bottom of the pyramid (grains, fruits, vegetables) than from its middle (meat, dairy), and that few daily servings, if any, should come from the narrow top of the pyramid (foods high in sugars and fat).

My second reason for mourning the demise of the old pyramid was its value as a basis for comparing dietary patterns and practices. The design was readily adaptable to a wide variety of international and regional dietary patterns, and personal dietary preferences. My personal collection of food pyramids contains examples from countries all over the world, as well as from groups devoted to vegetarian, vegan, low-carbohydrate, and any number of ethnic dietary patterns.[7] Furthermore, researchers could use the 1992 pyramid to compare the actual consumption of foods in a population to its recommended pattern, thereby demonstrating at a glance the imbalance

in typical diets. In the U.S., for example, the average diet contains more servings than are recommended from the "eat less" top of the pyramid than those recommended from the healthier food groups at the bottom. Finally, the old pyramid was useful for displaying the equally unbalanced distribution of dollars spent on food marketing; a "food marketing" pyramid exactly superimposes on the "actual consumption" pyramid.[8] As I will explain, the new pyramid—aimed at individuals as it is— cannot be used as a basis for such comparisons.

Why Are People Unable or Unwilling to Follow Dietary Recommendations?

The Dietary Guidelines were first issued in 1980, at the dawn of the obesity epidemic in the U.S. The pyramid followed in 1992 during a period of rapid acceleration in rates of obesity, leading some investigators to suggest that the pyramid *caused* obesity.[9] To understand why Americans do not follow dietary advice, it is helpful to review the kinds of factors that are involved in determining food choice. Economists say that the most important determinant of food choice is money; if you have enough money, you are likely to eat a healthier diet than someone who is poor. Social scientists argue that food choice is not just about money; it is more complicated than that. It also depends on age, gender, family background, culture, educational level, peer pressures, and other such factors.[10]

But a third determinant also exists, and one that is all too often overlooked: the food system. What I mean by "food system" can be described in four points. First, food is Big Business; Americans spend more than US$1 trillion a year on food. Second, nearly half that amount is spent on food consumed outside the home in restaurants, catering facilities, hotels, and at meetings; this makes food service an increasingly important determinant of dietary intake. Third, the cost of food in the U.S. is exceptionally low—about 10% of income on average. This percentage, the lowest in the world, is not only because Americans are so wealthy, but also because of deliberate federal policies to lower the cost of basic food commodities. The true costs of food are externalized; consumers pay the actual costs through taxes (and, perhaps, in higher health care costs) rather than through higher prices at the grocery store. Low prices are an incentive for people to eat more, and eating more encourages weight gain.[11]

The fourth aspect of the food system is the least recognized. It constitutes the deep, dark secret of U.S. agriculture: the food supply is overabundant. The U.S. food supply provides an average of 3,900 calories per capita for every man, woman, and child in the U.S.; this amount is approximately twice the average need of the population.[12] In 1980, the availability was just 3,300 calories. The 600-calorie increase occurred precisely in parallel with rising rates of obesity. The 3,900-calorie figure does not necessarily reflect the amount that an average person actually eats, but, even with wastage, it is far more than people actually need.[13]

The significance of an overabundant food supply is the pressure it places on companies to sell food in a competitive marketplace. Corporate executives are not sitting around conference tables trying to find ways to make people fat; they are struggling to find ways to sell food in an overabundant marketplace and to ensure sales growth in this highly competitive food environment. For corporations, it is not enough just to make the same profit year after year. Corporations must demonstrate *growth* to Wall Street, and do so every 90 days in quarterly reports. The pressure on corporations to "grow" explains much of the marketing methods they use to expand product sales. Companies, after all, have only two ways to expand sales: they can entice people to

eat their products instead of those of their competitors, or they can entice people to eat more food in general. (A third alternative—raise prices—is not considered to be an acceptable choice.) In this competitive environment, obesity is just collateral damage.

What Changes in the Food System Have Promoted Weight Gain?

Anyone old enough to remember the situation 25 years ago can attest to the profound changes in eating patterns that have occurred in parallel with rising rates of obesity. Since 1980 or so, it has become *normal* to eat in places where eating was formerly forbidden—bookstores, clothing stores, and libraries, for example. It is now normal for people to snack all day long. It is now normal for schools to have vending machines. And it is now normal for children to drink sodas all day long instead of water, juice, or milk.

These changes reflect major changes in society—and in social norms—that have greatly affected patterns of food consumption over this time period. Some of these societal changes are summarized in FIGURE 1.

FIGURE 1 Examples of recent societal changes that affect children's diet and activity patterns[14]

SOCIETAL CHANGE	CONSEQUENCE
More families with working parents	Inability to supervise meals and active play
Neighborhoods and parks perceived as increasingly unsafe	Inability to play outside without supervision
Reduced taxes for schools	Introduction of soft drink contracts, vending machines, fast food, food advertising
Limits on school physical education	Less play during and after school
Increased agricultural production	Increased competition: promotion of more "junk" food directly to children
Increased demands for convenience in food intake	More eating occasions; more energy consumed
Greater consumption of food prepared outside the home	Larger portions; more energy consumed
Business deregulation	Unrestricted marketing to children
Television deregulation	More commercials for "junk" foods during children's programming
Increased use of computers	Food marketing on the Internet, sedentary behavior
Increased media consolidation	Alliances with food companies to market to children
Increased Wall Street expectations for corporate growth	Expansion of fast-food chains, food products, and marketing to children

Pressures to sell more food cause companies to engage in multiple forms of marketing, of which advertising is only the most obvious element. U.S. food and beverage companies spend about US$36 billion annually to promote their products. Of this amount, they spend about US$12 billion on media—television, radio, and print. For

every dollar spent that way, companies spend another two dollars on less evident marketing methods such as supermarket slotting fees, coupons, trade shows, and the Internet.

Beyond advertising, marketing methods have changed the environment of food choice in ways that encourage people to eat more food than they need. The increasing *availability* of soft drinks and candy in practically every store (regardless of what it sells), encourages people to buy those foods. People tend to eat more when the foods are readily at hand.

By far the easiest way to encourage overeating is to serve *larger portions* of foods. Dr. Lisa Young, author of *The Portion Teller* (Morgan Road, 2005), researched this relationship as part of her doctoral dissertation at New York University.[15] Dr. Young measured the actual sizes of food portions available at fast-food and chain restaurants and of foods sold as single servings in grocery stores. She compared these sizes to portion sizes offered in the past and to standard portion sizes defined by federal agencies for use on food labels and in dietary guidance. The results of her work indicate that portion sizes have increased two- to fivefold since the early 1980s. Larger portions, of course, contain more energy than smaller portions. The increase in portion size is sufficient to explain the rise in energy consumption and in body weight.

Dr. Young examined the sizes of soft drinks offered for consumption. Whereas the standard serving size on a food label is 8 ounces and contains 100 calories, the largest cup currently available at movie theatres holds 64 ounces. If not too much ice is added to dilute the ingredients, this cup could provide as much as 800 calories worth of soda. Much research indicates that larger portions are an effective "eat more" strategy.[16]

Another "eat more" strategy is to expand the *variety* of foods available. In the U.S., food marketers introduce 15,000 to 20,000 new food products every year into a food system that already contains more than 300,000 food products. Oreo cookies are a good example. In 1990, Kraft offered six different types of Oreo cookies; in 2003, it offered 27 different types.[17] Regular Oreo cookies contain about 50 calories each. If you eat six cookies, the number in a single-serving package, you will take in 300 calories.

Attractive as low prices might seem, they are another "eat more" strategy. They encourage people to buy more food and, therefore, to eat more. McDonald's is a good example of this point. If you go to McDonald's wit US$5, you have two choices: you can buy five hamburgers (at US$1 each), or buy just one salad for US$4.99. If you are poor, the choice is obvious. This example raises the question: why are five hamburgers priced the same as just one salad? Much of the answer is embedded in the cost of the raw materials and in political choices that determine the cost of food. Farm subsidies, for example, support the production of soybeans—the source of partially hydrogenated vegetable oils. They also support the production of corn—the source of corn sweeteners. Adding either to a food product reduces the cost of its energy. Food products containing subsidized vegetable oils and sweeteners cost less per kilocalorie than other foods.

The Use of Health Claims to Encourage Food Sales

In 1990, the U.S. government passed the Nutrition Labeling Health and Education Act, which required food companies to put Nutrition Facts labels on food products. In return for having to do this, food companies induced Congress to allow them to make two kinds of health claims on product labels: nutrient content claims and

claims for health benefits. Because companies could now say that their products were high in vitamins and minerals, the Act encouraged the addition of such nutrients to food products. Breakfast cereals, juice drinks, and even candy could be labelled "contains 100% of 10 vitamins" or with similar statements, even if most—or all—of their energy came from added sugars. This sales strategy is effective in encouraging health-conscious consumers to buy products that they probably would not buy otherwise.

The situation with claims for health benefits is equally difficult. In recent years, the Food and Drug Administration (FDA) has been under great pressure to deregulate health claims. Whenever the FDA refused to allow certain health claims on food products, the companies requesting such claims took the agency to court. The courts routinely ruled in favor of the companies on First Amendment (freedom of speech) grounds. Eventually, the FDA gave up and stopped trying to require much in the way of scientific substantiation for health claims. The result is evident in the marketplace, especially in the cereal section of supermarkets. It has long been possible to find cereals labelled as helping to lower cholesterol levels or to prevent heart disease or cancer; now you can also find cereals labelled as promoting a healthy immune system or as weight-loss products.

International Aspects of Food Marketing

These kinds of marketing methods are not limited to the U.S. In 2003, a Canadian magazine advertised butter as a health food because it is a source of vitamin D.[18] In this case, vitamin D is used as a "calorie distracter"; consumers are not supposed to think about the high energy value of butter or its high concentration of saturated fat. Another example: in the spring of 2005, I saw numerous McDonald's outlets throughout Dubai in the United Arab Emirates. The only differences between those McDonald's restaurants and their American counterparts are the signs and brochures in Arabic. Apparently, Ronald McDonald successfully translates into Arabic, and marketing food to children is a worldwide phenomenon.

Marketing to Children

Children rarely have their own source of income, but food companies have three good reasons for marketing directly to these groups.[19] The first is brand loyalty. Food companies want children to recognize the company's food brand as early as possible in life so they will continue to prefer that brand throughout life. The second reason is known as "the pester factor." Food companies want children to ask their parents or caretakers to buy their products. The success of these strategies is well documented and visible to anyone observing the behavior of young children in supermarkets or fast-food outlets.[20] I often hear from parents who say that they never allow their children to watch television and have never taken them to a fast-food outlet. Nevertheless, they are astounded to discover how familiar their children are with food product and fast-food brands.

But the third reason is the one that I find most insidious: foods made "just for kids." Food marketers would like children to believe that they are supposed to eat foods designed just for them, and are not supposed to eat the foods prepared and eaten by their parents or caretakers. They are to desire foods in cartoon-covered packages, in strange colors, in unidentifiable forms, and to reject foods typically eaten by adult members of the family. This strategy explains the purpose of purple ketchup, blue macaroni and cheese, and packaged food items such as Kraft Lunchables. It teaches young children to think of food products—rather than unprocessed foods—as normal fare.

Professional Complicity

I regret to say that nutrition and health professionals are sometimes complicit in food industry marketing. For example, it is not unusual to see sugary and salty snack foods carrying what appear to be endorsements from the American Heart Association. Companies pay this organization for the privilege of carrying its logo on the food package. The logo appears on sugary cereals; the American Heart Association's criteria for use of its logo include restrictions on fat and cholesterol, but nothing else. With obesity an increasing problem, some revisions to these criteria would seem appropriate.

The American Heart Association endorsement appears on a salty snack made by Frito-Lay, a subsidiary of PepsiCo. An executive of that company gave an interview to *Advertising Age*, explaining why Frito-Lay wanted to use the Association's endorsement. "Health professionals," he said, "are very trusted by consumers and we want to help them help consumers place (Frito-Lay) products in their lives."[21] This quotation suggests that from the point of view of food marketers, one job of health professionals is to help food companies sell products to the public.

Another example: the *Journal of American Dietetic Association* produces fact sheets for the public on a variety of food and nutrition issues, each with its very own corporate sponsor. If you know the topic of the fact sheet, you can easily predict its sponsor. A fact sheet on beverages, for example, concludes that all beverages (including soft drinks) can have a place in a well-balanced eating pattern, which should be no surprise considering that the sponsor was the American Soft Drink Association.[22]

As I discuss in my book *Food Politics* (University of California Press, 2002), one result of the pressures on companies to sell more food, not less, is what appears to be a collaboration among government, the food industry, and, sometimes, nutrition and health professionals to encourage people to buy and to eat more food, more often, in more places, and in larger portions. Again, it is not that the government and food companies are intentionally trying to fatten Americans. It is just that corporate pressures on government and on the public to create an environment that encourages and enables overeating is an unintended consequence of normal business practices.

Responses to Concerns About Obesity

In the past few years, publications such as *The Economist*, *Fortune Magazine*, the *Wall Street Journal*, *Business Week*, and others have produced articles about the obesity problem and the ensuing battle against Big Food. This battle, reminiscent of the one fought against tobacco companies, is likely to have profound implications for companies making, selling, preparing, and serving food.

In response, food marketers have latched onto health and are all trying to reformulate their products to be advertised as healthy and, in some cases, to change the way they market their products to children.[23] Companies that make products that might not qualify for health claims have solved that problem by creating their own self-endorsement systems. General Mills cereal boxes, for example, appear with "Goodness Corners" containing tokens that indicate the content of vitamins, calcium, or whole grains. This company now produces all of its cereals as "whole grain." This means that sugary cereals like Cocoa Puffs and Count Chocula, which formerly contained zero grams of fibre, now contain one gram (a high-fibre cereal usually contains five or more grams per serving). Both are endorsed by the American Heart Association. General Mills also makes a reduced sugar version of Cocoa Puffs that contains the same energy value, the same amount of total carbohydrate, and the same one gram of fibre; it is sweetened with the artificial sweetener sucralose (Splenda). Is this product better for children? The cereal is still highly processed and relatively low in fibre.

Such examples reveal that companies want their products to appear healthful, no matter what they contain. At the same time, food companies are joining together to form an alliance to make sure that they can continue business as usual, particularly when it comes to marketing to children. The purpose of the alliance is to defend the industry's First Amendment rights to advertise to children.[24] Restrictions on marketing to children undoubtedly will hurt sales and impair corporate growth.

The 2005 Dietary Guidelines and Pyramid

As noted earlier, USDA and HHS have issued Dietary Guidelines every five years since 1980 to help Americans prevent diet-related chronic diseases. The first set of guidelines contained seven simple recommendations aimed at the general public. These addressed variety (eat more) and energy (balance); fat, saturated fat, and cholesterol (eat less); fruits and vegetables (eat more); and salt, sugar, and alcohol (eat less or restrict); and were meant for everyone over the age of two.

Twenty-five years later, the 2005 Dietary Guidelines require 70 pages to explain 41 guidelines individualized to two diet plans with 11 food groups at 12 different levels of energy. They are no longer public health recommendations. The sugar guideline is a good example, as shown in FIGURE 2.

FIGURE 2 Evolution of the U.S. Dietary Guideline for sugar, 1980 to 2005

YEAR	SUGAR GUIDELINE	NUMBER OF WORDS
1980	Avoid too much sugar	4
1985	Avoid too much sugar	4
1990	Use sugars only in moderation	5
1995	Choose a diet moderate in sugars	6
2000	Choose beverages and foods to moderate your intake of sugars	10
2005	Choose and prepare foods and beverages with little added sugars or caloric sweeteners, such as amounts suggested by the USDA Food Guide and the DASH (Dietary Approaches to Stop Hypertension) Eating Plan	27

In 1980 and 1985, the guideline contained just four words—"Avoid too much sugar"—a clear "eat less" message and still excellent advice. But as the Dietary Guidelines were revised over the years, the number of words increased and the message became less direct and more confusing. By 2005, sugar disappeared as a separate guideline and is now a "key recommendation" in a chapter on carbohydrates; it requires 27 words and reference to complicated dietary plans. Could politics have anything to do with the content of the new guidelines? One answer comes from a detailed investigative report about advice regarding dairy foods in the Dietary Guidelines. According to the *Wall Street Journal*, a conservative business newspaper,

dairy industry trade groups had a great deal to do with influencing the Guidelines Advisory Committee to raise the milk recommendation from two servings a day to three servings.[25]

The USDA's Pyramid is meant to be the implementation guide to the Dietary Guidelines. The 2005 version of the pyramid, was announced by the USDA with great enthusiasm at a press conference in which dietary choices were mentioned only in passing and most of the emphasis was on physical activity. The design of the new pyramid is no longer hierarchical; it now displays unlabelled food groups as colored bands radiating downward from its peak. Along one side is a set of stairs with a figure climbing up them. Foods are absent from the design. To understand the pyramid, consumers must have access to the Internet, go to the USDA Web site (www.mypyramid.gov), and log in their age, sex, and level of activity. From these data, the computer produces one of 12 individualized dietary prescriptions. The shift to physical activity and to personalized dietary advice makes individuals completely responsible for making appropriate food choices—and relieves food companies and the government of any responsibility for making it easier for people to make wise choices.

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