

the remainder is sometimes motivated by health or they value convenience and family functions more than health.

MEETING FUTURE CONSUMER HEALTH NEEDS

Marketing experts indicate that consumers want simplicity in food products and food labels. They want food products that are sustainable. And they are prone to ask questions: What is goodness? What is healthy? Consumers are moving to a wellness definition of health. In other words, health and wellness are becoming intertwined, and consumers are asking for both aspects in food products.

A CASE STUDY OF THE HEALTH METRIC: PROGRESSO LIGHT SOUP

General Mills sought to develop a light soup in partnership with Weight Watchers. The company first gained consumer insights about reduced-fat and reduced-calorie food products and then examined consumers' culinary

mindset. It aimed to give consumers their "hero" ingredients—vegetables, pasta, and cream—without sacrificing flavor and texture. A complex flavor using spices and herbs was paired with a cream-like texture to compensate for less cream in the final product. Although the continual assessment of product stability, flavor, and texture during development took several years, Progresso Light Soups, which contain at least one-third fewer calories than their regular counterparts, claimed a 90% share of the light soup market.

CONCLUSION

The experience of food product developers suggests that the art of successful health improvements in food products involves a formula that combines health as a core strategy, a consumer-centric approach, significant resources, a long-term commitment, and patience. For example, a 10% reduction in the sodium content of food products that maintain product acceptability can take as long as 3 years to develop. Good results can be achieved by focusing on taste, convenience, and affordability.

Spices and Herbs and the *Dietary Guidelines for Americans*

Barbara O. Schneeman, PhD

The *Dietary Guidelines for Americans* (DGA) provides science-based nutrition advice for individuals 2 years or older to help reduce the risk of chronic disease and promote health.¹ This federal nutrition document is prepared jointly by the US Department of Agriculture (USDA) and the Department of Health and Human Services (HHS). The DGA, which is revised every 5 years, serves as a foundation for federal nutrition feeding programs, federal nutrition education programs, and setting policy and research priorities.

DEVELOPMENT OF THE DGA

The process for developing the DGA includes appointing members to the Dietary Guidelines Advisory Committee (DGAC), obtaining comments about the DGA, holding public meetings, and reviewing scientific papers in the USDA's Nutrition Evidence Library, which provides a standardized evaluation and grading of the scientific literature. The DGAC is tasked with preparing a report for the Secretaries

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of USDA and HHS. Key steps are the review of documents and data, including the previous DGA, new research and systematic reviews, and reports from authoritative sources, such as the National Academy of Sciences, which may inform opinion on dietary recommendations.

Analyses on food safety, the food supply, and intakes of foods and/or nutrients in relation to nutrition-related diseases are conducted to understand dietary patterns in relation to health and disease patterns. Food and/or nutrient intakes are obtained from the "What We Eat in America—National Health and Nutrition Examination Survey" (WWEIA-NHANES), which is a national population-based food survey conducted as a partnership between HHS and USDA.² Food pattern modeling analyses are also conducted. When the Advisory Committee's report is finished, public comments are obtained, and a government agency committee is formed to review public comments and the committee's report and prepare a document that becomes the DGA. This government committee uses the scientific conclusions made by the DGAC to develop the policy document.

USES OF THE DGA

The DGA is the federal nutrition document on which national nutrition education and policy are based. A federal

workgroup reviews nutrition education programs such as MyPlate to ensure their messages are consistent with those in the DGA. The DGA is also considered in updating the Nutrition Facts panel that appears on food product labels.

WHAT HAVE WE LEARNED FROM THE DGA PROCESS?

Since 1980, when the DGA was first published,³ we have learned that the DGA's nutrition messages have been fairly consistent over the years, but better ways of conveying them have been identified. Perhaps the most important learning is that solid science is necessary to support dietary recommendations, but it is not sufficient to change consumer behavior. As shown in the Figure, Americans do not eat enough of the recommended foods and nutrients and eat too much of those that are less desirable.

The DGA has increasingly focused on a healthy lifestyle. Rather than a single nutrient or food, it is the dietary pattern that is associated with reduced risk of chronic degenerative disease. As a result, the DGA is shifting from a nutrient focus to a food-based focus, which presents some challenges.

DGA 2010: STRUCTURE AND EMPHASIS

The 2010 DGA focused on balancing calories to manage weight, reducing or increasing the intake of specified foods and nutrients, building healthy eating patterns, and

helping Americans make healthy food choices. The new emphasis in 2010 was on common elements among healthy eating patterns such as the DASH eating plan, the USDA Food Guide, and the Mediterranean-style diet.¹ (DASH stands for Dietary Approaches to Stop Hypertension.⁴) In helping Americans make healthy food choices, the new emphasis was on access and opportunity: foods that are available, affordable, safe to eat, and acceptable. Focusing on access and opportunity was considered important because the link between healthy dietary patterns and healthy people is consumer behavior, and linking consumer behavior and dietary choices depends on taste, cost, and convenience. The topic of "flavor" or "taste" is mentioned in only 3 places in the 2010 DGA, which suggests that future versions have an opportunity to give more attention to this key driver of consumer food choices.

2015 DGA: DIRECTION

The DGAC subgroups are focusing on 5 areas: (1) current status and trends in food and nutrient intakes and health; (2) dietary patterns, food and nutrients, and health outcomes; (3) diet and physical activity behavior change; (4) food and physical activity environments; and (5) food sustainability and safety. Other topics being considered are how food palatability, food preferences, cooking substitutions, and the social environment affect diet and physical activity behavior change.

How do American diets compare to recommendations?

FIGURE 5-1. How Do Typical American Diets Compare to Recommended Intake Levels or Limits?

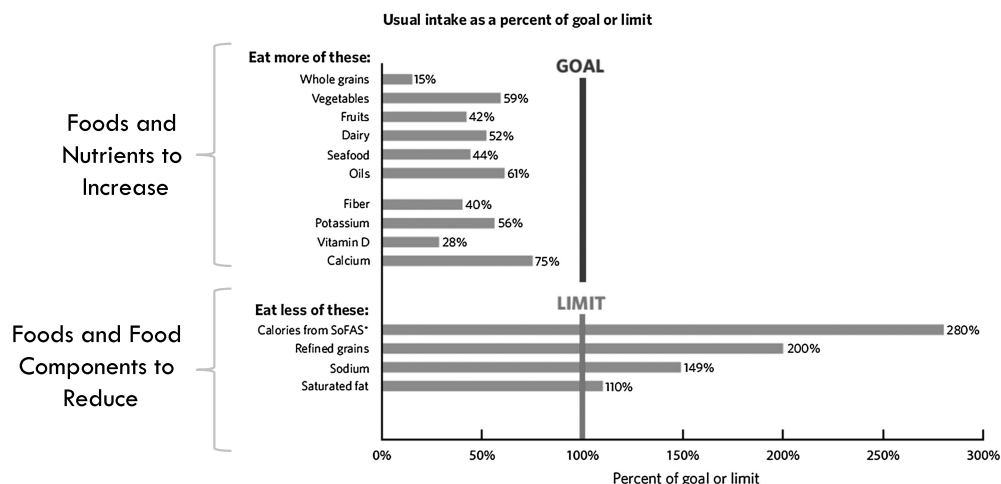


FIGURE. How typical American diets compare to recommended intake levels or limits.¹ Bars show average intakes for all individuals (1 or 2 years or older, depending on the source) as a percentage of the recommended intake level or limit. Abbreviation: SoFAS, solid fats and added sugars.

ROLE OF SPICES AND HERBS IN THE DGA

In the 2010 DGA, spices and herbs were recognized only as a strategy for reducing sodium intake. Newer research supports such a strategy and also points to a role for spices and herbs in achieving other dietary guidelines (see pages S8–S9, S12–S13, S22–S24). The question is: What role should spices and herbs have in future editions of the DGA? Research is needed to address several practical issues before this question can be answered. For example, studies can determine whether using spices and herbs in food preparation helps consumers maintain a reduced sodium intake, whether culinary spices and herbs improve adherence to a healthy dietary pattern such as the DASH eating plan,⁵ and whether dietary patterns should focus on food preparation as well as foods. Obtaining data on these issues will guide the DGAC in formulating dietary guidelines going forward.

CONCLUSION

The DGA is designed to help Americans choose a healthy eating pattern to reduce their risk of chronic disease and maintain health. It recognizes the importance of food safety and the challenge for some households of acquiring sufficient food to meet their needs. Its goal is to

improve the overall quality of the American diet. Well-designed studies are emerging to help determine whether a spicy, flavorful eating pattern incorporating a variety of spices and herbs will promote adherence to a healthy diet and improve American's eating patterns.

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Spices and Herbs

Improving the Public Health

Robert C. Post, PhD, MEd, MSc

The *Dietary Guidelines for Americans* (DGA) focuses on helping consumers achieve a healthy weight, consume nutrient-dense foods and beverages, and address modifiable health factors such as the number of calories they consume, the number of calories they expend in physical activity, and their food and activity environment.¹ Promising research is beginning to emerge that suggests spices and herbs can support the DGA by making recommended foods and healthy eating patterns more acceptable to consumers and/or through their beneficial physiological effects, such as enhanced

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satiety or improved biochemical risk factors. Examples of these contributions to 3 major areas of the 2010 DGA include the following:

1. Foods and Nutrients to Increase

Consumers are advised to increase their fruit and vegetable intake and also eat a variety of vegetables, especially dark-green, and red and orange vegetables, and beans and peas.¹ Spices and herbs may help increase the acceptance of these nutrient-dense foods by making them more palatable. For example, preschool children ate more of a disliked vegetable (celery or steamed squash) when it was paired with an herb dip than when it was eaten alone.²

2. Foods and Food Components to Reduce

The DGA advises consumers to consume several foods and food components less often, including sodium and saturated fat.¹ Recent research suggests that spices and herbs may help consumers adhere to lower-sodium eating plans³ and reduced-fat foods and meals (see pages S8–S9 and S12–S13).^{4,5}