# *Scientific Report of the 2015 Dietary Guidelines Advisory Committee.* Washington, DC: US Departments of Agriculture and Health and Human Services, 2015

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## Genesis of the Report

The US government has been issuing guidance in one form or another about optimal dietary intakes for more than a century. Clearly, the pressing dietary concerns of Americans, health care workers, and public health officials have undergone considerable changes during this time, shifting from a focus on prevention of micronutrient, protein, and energy deficiencies in the early 1900s to prevention of obesity and chronic disease in the 21st century. In 1980, the form and content of these guidance documents were clarified, streamlined, and codified such that the first Dietary Guidelines for Americans (DGA) was created. Dictated by the National Nutrition Monitoring and Related Research Act of 1990 (Public Law 101–445), federal law now requires that the DGA be reviewed, updated, and republished every 5 y.

To meet this requirement, the US Department of Agriculture (USDA) and US Department of Health and Human Services jointly appoint a Dietary Guidelines Advisory Committee (DGAC) constituted of nationally recognized experts in nutrition and health. The process of appointing this committee for the 2015 DGA was initiated in 2012 when nominations were sought from the public through a notice published in the Federal Register; 15 individuals were chosen with Drs. Barbara Millin (Millennnium Prevention) and Alice Lichtenstein (Tufts University) serving as chair and vice chair, respectively. Officially, the 2015 DGAC was established for the "single, time-limited task of reviewing the 2010 edition of DGA and developing nutrition and related health recommendations to the federal government for its subsequent development of the 2015 DGA." The culmination of the committee's work (Scientific Report of the 2015 Dietary Guidelines Advisory Committee) is summarized herein.

## The Process

In all, the DGAC held 7 public meetings over the course of 18 mo, with all meetings and their summaries, presentations, and archived recordings made available via webcasts or downloadable documents. Written public comments were solicited and reviewed. To facilitate and guide their work, the committee developed a conceptual model (**Figure 1** to illustrate the complex interplay that exists between numerous factors that determine and influence diet and physical activity and the many resulting health outcomes. At the hub of the model was, as expected, diet and physical activity patterns and behaviors.

After reviewing the 2010 DGA and delineating numerous timely nutrition-related questions that they felt needed addressing, the committee used systematic reviews (mainly overseen by the USDA's Nutrition Evidence Library housed within the Center for Nutrition Policy and Promotion) combined with meta-analyses, reports, and targeted data analyses and food-pattern modeling to get their answers. Regardless of the path they took to answer each of their initial questions, the committee developed conclusions and implication statements that summarized both their findings and the strength of the evidence supporting them. These questions, sources of evidence, findings, conclusions, and needs for future research are provided in considerable detail in Parts D (Science Base) and E (Appendix E-1) of the DGAC's report and provide an extremely intimate and transparent view of the committee's work and outcomes in terms of themes and recommendations.

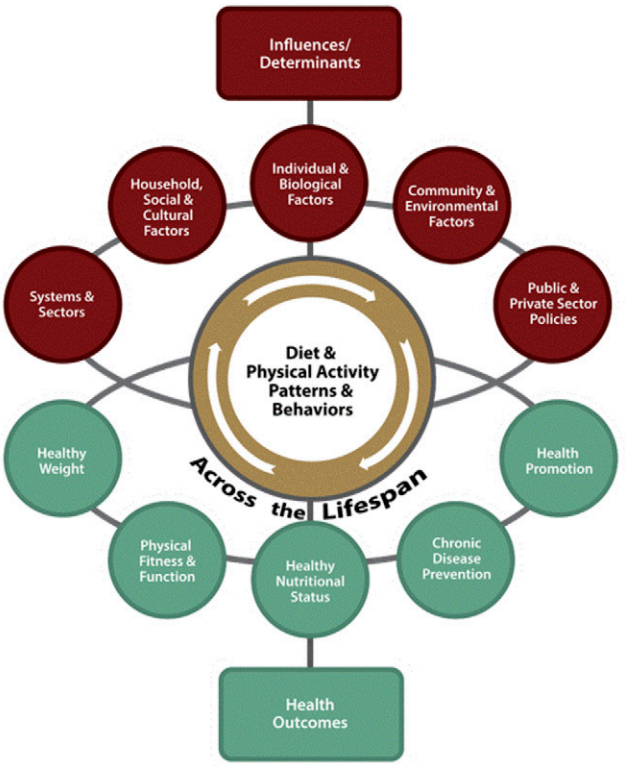


**FIGURE 1** Conceptual model developed by the DGAC to serve as an organizing framework for its report. Source: US Departments of Agriculture and Health and Human Services. 2015 Scientific Report of the 2015 Dietary Guidelines Advisory Committee. Washington, DC.



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## Overarching Themes

The committee identified 6 overarching themes, each of which is briefly described below. From their combined effort on these themes they concluded: "Overall, the evidence base on the links between diet, physical activity, and health has never been as strong or more compelling."

- **The Problem:** About one-half of American adults have ≥1 preventable, chronic disease related to suboptimal diet and physical activity patterns, and more than two-thirds of adults are overweight or obese. Moreover, nearly one-third of children are overweight or obese. These trends have been evident for >20 y and do not appear to be subsiding, resulting in an ethos of treatment rather than prevention.
- **The Gap:** Food consumption patterns typical to the American diet are poor, characterized by inadequate intakes of fruits, vegetables, and fiber and excessive consumption of sodium, calories, saturated fat, refined grains, and added sugars. These poor dietary patterns result in population-wide underconsumption of several essential nutrients such as vitamin D, calcium, potassium, and iron. Increasing availability of affordable, high-fat, nutrient-lacking foods is likely exacerbating this trend.
- **The Dietary Patterns:** Current research confirms that there is no one-size-fits-all diet, but rather that people who consume diets rich in fruits, vegetables, whole grains, dairy, seafood, legumes, and nuts; moderate in alcohol; lower in red and processed meats; and low in sugar-sweetened foods and drinks are the least likely to develop obesity and chronic diseases. The committee also confirmed that there is no need to cut out any particular food to stay healthy. Rather, individuals should simply follow the long-held creeds of variety, moderation, and balance as they relate to personal preferences, cultural traditions, and personal health needs.
- **The Individual:** Helping an individual achieve a healthy diet and physical activity pattern should ideally involve a variety of proven tools and resources, including one-on-one and small-group counseling, evidence-based dietary guidance (e.g., DGA), new technologic approaches (e.g., websites and cellular phones), and educational strategies aimed at sustainable behavioral change and maintenance strategies.
- **The Population:** In addition to providing messages aimed at individuals, population-wide efforts such as policy changes and environmental initiatives are also somewhat effective in changing diet and exercise patterns for the better. Approaches that involve families, schools, retail outlets, and health care institutions may be most effective in this regard.
- **The Long-Term View:** The committee also addressed some possible benefits of various dietary patterns purported to be more sustainable for human populations and the planet they inhabit. To that end, they concluded that moderate-to-strong evidence exists that healthy dietary patterns that are relatively high in plant-based foods and lower in calories and animal-based foods are associated with more favorable environmental outcomes, such as decreased greenhouse gas emissions.

## Selected Recommendations for Action

The committee's recommendations for action focused on a list of bold, overarching suggestions for individuals, families/households, communities, and populations such that a culture of health might be collectively achieved. Some of these recommendations are highlighted here.

- Think prevention, and become familiar with your personal health risks, goals, and needed actions (including diet and activity changes) to better your health.
- Most people would benefit from eating more vegetables, fruits, whole grains, seafood, nuts, legumes, low-non-fat dairy or dairy alternatives.
- Most people would benefit from reducing consumption of red and processed meats, refined grains, added sugars, sodium, and saturated fat; saturated fats (e.g., animal fats) should be substituted with non-tropical polyunsaturated alternatives (e.g., vegetable and nut oils).
- In general, nutrients should be obtained through healthy foods and beverages rather than dietary supplements.
- Seek help from nutrition and exercise experts as needed.
- Achieve and maintain a healthy body weight.
- Pay special attention that children eat healthy foods and participate in adequate amounts of exercise.
- Get enough sleep.
- Aim to make healthy lifestyles and disease prevention local and national priorities.
- Seek a paradigm shift in health care and public health toward a greater focus on prevention and integration with food systems.
- Establish healthy food environments; for instance, develop and expand programs that encourage healthy eating and physical activity habits in young children and teens within schools.
- Improve, standardize, and implement Nutrition Facts labels and Front-of-Package labels to help all consumers make healthy food choices.

In her letter to Sylvia Burwell (Secretary of Health and Human Services) and Thomas Vilsack (Secretary of Agriculture) which accompanies the committee's report, Dr. Millen concluded: "The 2015 DGAC hopes that its Report will aid in developing public policies that aim to establish a "culture of health" at individual and population levels and, in so doing, make healthy lifestyle choices easy, accessible, affordable, and normative – both at home and away from home."

## For More Information

A free on-line version of this report can be found at http://health.gov/dietaryguidelines/2015-scientific-report/pdfs/scientific-report-of-the-2015-dietary-guidelines-advisory-committee.pdf. Answers to common questions related to the Dietary Guidelines Advisory Committee's work can be found at http://health.gov/dietaryguidelines/2015/qanda.asp. A link to the public meeting for oral testimony on the DGAC report is available at http://health.gov/dietaryguidelines/2015/public-meeting.asp. The National Nutrition Monitoring and Related Research Act of 1990 (Public Law 101–445 - Oct. 22, 1990) can be found at http://health.gov/dietaryguidelines/2015-BINDER/meeting1/dietaryGuidelinesLegislation.aspx.