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Dietary Guidelines for Americans: Frequently Asked Questions

Updated February 2, 2016

Congressional Research Service
https://crsreports.congress.gov
R44360

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

The Dietary Guidelines for Americans (DGA) is a policy document that provides federally developed, nutrition-based recommendations for Americans two years of age and older. The guidelines are statutorily mandated under the 1990 National Nutrition Monitoring and Related Research Act (P.L. 101-445), which requires the Departments of Health and Human Services (HHS) and Agriculture (USDA) to jointly publish the DGA policy document at least once every five years.

The DGA forms the basis for all federal nutrition policies, including the National School Lunch Program and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The guidelines also

- influence food and nutrition labeling;
- guide local, state, and national health promotion and disease prevention initiatives; and
- inform various organizations and industries (e.g., products developed and marketed by the food and beverage industry).

To facilitate publication of the DGA policy document, a conference report from the House Committee on Appropriations directed HHS and USDA to establish a Dietary Guidelines Advisory Committee (DGAC) on a periodic basis. The DGAC is an independent group of experts from outside the federal sector, generally in the fields of nutrition and medicine, whose work is solely advisory and time-limited. The DGAC is tasked with reviewing the scientific data relevant to nutritional guidance and making recommendations to the Secretaries of HHS and USDA regarding changes to the DGA policy document.

The 571-page *Scientific Report of the 2015 DGAC* (2015 DGAC's report) was made public on February 19, 2015, and was used by the departments, along with public comments and input from other federal agencies, to inform the drafting of the 2015-2020 DGA policy document.

Because the DGA influences nutrition policy, the guidelines are of interest to public health, nutrition, agriculture, and food industry stakeholders. Following the release of the 2015 DGAC's report, HHS and USDA received 29,000 written comments during the 75-day comment period, as well as 73 oral comments at a March 2015 public meeting. Stakeholders flagged several concerns with the report, particularly with the scope of the DGAC's recommendations and the process by which the DGAC made its conclusions and recommendations, along with concerns regarding several specific recommendations.

In response to concerns surrounding the scope of the 2015 DGAC's report and the process used to develop the 2015-2020 DGA, several DGA-related policy riders were included in the FY2016 omnibus appropriations law (P.L. 114-113), prior to the release of the 2015-2020 DGA. As mandated by Congress, the National Academies of Medicine (NAM) are, for the first time, required to review the DGA and its development process due to concerns with the "quality of scientific evidence and extraneous factors" that were included in the 2015 DGAC's report.

HHS and USDA issued the 2015-2020 DGA on January 7, 2016. This most recent DGA provides five overarching guidelines for the general population, accompanied by several "Key Recommendations" that provide further guidance on how individuals can follow the five guidelines.

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Introduction

The Dietary Guidelines for Americans (DGA) provides federally developed food-based recommendations for Americans two years of age and older, designed to promote health and prevent disease. As mandated by the 1990 National Nutrition Monitoring and Related Research Act (P.L. 101-445), the guidelines are to be reviewed and updated at least every five years by the Secretaries of the Department of Health and Human Services (HHS) and Agriculture (USDA). The statute requires that the DGA be based on a preponderance of scientific and medical knowledge.

This report provides responses to frequently asked questions about the DGA, including the DGA development process, as well as specific recommendations contained in the 2015-2020 DGA.

Key Terms Used Throughout the Report

Dietary Guidelines for Americans (DGA): refers to the policy document, issued by HHS and USDA every five years, that serves as the basis for nutrition policies and programs in the United States.

Dietary Guidelines Advisory Committee (DGAC): refers to the committee of experts from outside the federal sector who are responsible for reviewing the current science and submitting their recommendations, as well as the scientific rationale for those recommendations in an advisory report to the Secretaries of HHS and USDA.

2015 DGAC's Report: refers to the *Scientific Report of the 2015 DGAC*—an advisory report submitted by the 2015 DGAC, which was used by the Secretaries of HHS and USDA to inform the 2015-2020 DGA policy document.

Nutrition Evidence Library (NEL): the NEL specializes in conducting systematic reviews to answer nutrition- and health-related questions to inform federal nutrition policies and programs.

Why Is the DGA Important?

In accord with its statute (P.L. 101-445), the DGA is based on "the preponderance of the scientific and medical knowledge which is current at the time the report is prepared." It is an evidence-based and authoritative policy document that serves as the basis for nutrition policies and programs in the United States, including the National School Lunch Program, the Supplemental Nutrition Assistance Program (SNAP), and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).[1] All federal dietary guidance must be consistent with the DGA.

One example of how the DGA has affected public policy is through nutrition labeling.[2] In March 2014, FDA issued two proposed rules to update the Nutrition Facts label based on recommendations contained in the 2010 DGA. More specifically, a key recommendation of the 2010 DGA was to reduce the intake of calories from added sugars, although no quantitative limit

[1] See CRS Report R43783, *School Meals Programs and Other USDA Child Nutrition Programs: A Primer*, by Randy Alison Aussenberg, and CRS Report R44115, *A Primer on WIC: The Special Supplemental Nutrition Program for Women, Infants, and Children*, by Randy Alison Aussenberg.

[2] See CRS Report R43733, *Revision of the Nutrition Facts Label: Proposed Rules*.

was established.[3] In accord with the DGA recommendation, FDA issued a proposed rule that if finalized would, among other things, mandate an "added sugars" line on the Nutrition Facts label, requiring manufacturers to distinguish between added sugars and naturally occurring sugars in food.[4]

In July 2015, FDA issued a supplemental proposed rule that would require, in addition to mandatory added sugars labeling, a percent daily value (%DV) declaration for added sugars.[5] In the initial iteration of the proposed rule, FDA proposed mandatory declaration of the amount of added sugars in a food item but not a percent daily value, citing lack of scientific evidence to substantiate such a recommendation. However, the *Scientific Report of the 2015 DGAC* (2015 DGAC's report) provided new evidence to support establishing a reference amount for added sugar intake. In light of this new evidence, FDA determined that establishing a percent daily value for added sugars was warranted. FDA thereby proposed that the percent daily value should be based on the recommendation that the daily intake of calories from added sugars not exceed 10% of total calories.

How Has the DGA Process Changed Over Time?

Over the years, the DGA has evolved from an educational brochure for consumers to a policy document for policy officials, nutritionists, and nutrition educators (see **Table 1**). The eight editions of the DGA have generally contained similar recommendations regarding what constitutes a healthy diet; however, the recommendations have evolved over time to reflect the latest scientific evidence. Although the earlier editions of the DGA contained just seven guidelines, by 2005, that number had increased to 41 (23 for the general public and 18 for specific populations); despite the increase in the number of guidelines, the overarching recommendations have remained largely the same. Beginning in 2020, the DGA is expected to add recommendations for another age cohort (birth to 24 months of age), as directed by a provision in the Agricultural Act of 2014 (P.L. 113-79, the "Farm Bill").

The methods used for reviewing evidence to inform the DGA have also changed. In 1980, scientists from HHS (then called the Department of Health, Education, and Welfare) and USDA, along with expertise from the scientific community, were responsible for reviewing the scientific evidence and drafting the DGA. However, following the 1980 DGA's publication, various industry and scientific groups expressed concern regarding the science used to develop the recommendations.[6] To help the departments develop the DGA policy document, a Senate Committee on Appropriations report directed that an external committee be established to review scientific evidence and recommend revisions to the 1980 DGA.[7] In 1983, an external federal advisory committee of nine nutrition scientists was convened to review and make recommendations in a report to the Secretaries of USDA and HHS about the 1980 DGA. Following those recommendations, USDA and HHS released the 1985 DGA (the second edition), which contained almost the same recommendations as the first edition, but was more widely

[3] USDA and HHS, 2010 DGA, see http://health.gov/dietaryguidelines/dga2010/dietaryguidelines2010.pdf.

[4] 79 *Federal Register* 11883.

[5] 80 *Federal Register* 44303.

[6] HHS, 2015 DGAC Meeting 1: Materials and Presentations, "History of Dietary Guidance Development in the U.S. and the *Dietary Guidelines for Americans*," see http://health.gov/dietaryguidelines/2015-BINDER/meeting1/historyCurrentUse.aspx.

[7] U.S Senate Agricultural Appropriations Committee (US Senate). 96th Cong., 1st sess., 1980, S.Rept. 96-1030.

accepted.[8] In 1987, a House Committee on Appropriations conference report directed HHS and USDA to "reestablish a Dietary Guidelines Advisory Group on a periodic basis. This Advisory Group will review the scientific data relevant to nutritional guidance and make recommendations on appropriate changes to the Secretaries of the Departments of Agriculture and Health and Human Services."[9] A Dietary Guidelines Advisory Committee (DGAC) was used in developing the DGA thereafter.

The 1995 DGA was the first statutorily mandated (P.L. 101-445) edition of the DGA; the 1980, 1985, and 1990 editions were issued voluntarily by HHS and USDA. Another major change occurred following the 2005 DGA, when the USDA Center for Nutrition Policy and Promotion (CNPP) developed the Nutrition Evidence Library (NEL), which was then used by the 2010 DGAC to systematically review the scientific evidence to inform the development of the 2010 DGA (the NEL is discussed in greater detail in the section "What Is the Nutrition Evidence Library's Role in DGA Development?").

Table 1. The DGA: 1980-Present

Year	Method for Reviewing the Evidence	Target Audience	Focus of Guidance	Number of Guidelines
1980	Review of current science by select scientist from HHS and USDA, along with expertise of scientific community	Consumers	Healthy Americans (age not specified)	7
1985	Establishment of DGAC and use of DGAC's collective knowledge of nutrition	Consumers	Healthy Americans (age not specified)	7
1990	DGAC's collective knowledge of nutrition	Consumers	Healthy Americans, two years of age and older	7
1995	DGAC's collective knowledge of nutrition	Consumers	Healthy Americans, two years of age and older, to promote health and prevent disease	7
2000	DGAC's collective knowledge of nutrition	Consumers, policy officials, nutritionists, nutrition educators	Healthy Americans two years of age and older, to promote health and decrease risk of certain diseases	10 (clustered into three groups)
2005	DGAC's search and review of the scientific literature	Policy officials, nutritionists, nutrition educators	Americans two years of age and older, to promote health and decrease risk of major chronic diseases	41 (23 for general population, 18 for specific population groups)

[8] HHS, 2015 DGAC Meeting 1: Materials and Presentations, "History of Dietary Guidance Development in the U.S. and the *Dietary Guidelines for Americans*," see http://health.gov/dietaryguidelines/2015-BINDER/meeting1/historyCurrentUse.aspx.

[9] U.S. House of Representatives Conference Committee, 100th Cong., 1st sess., 1987, H.Rept. 100-498.

Year	Method for Reviewing the Evidence	Target Audience	Focus of Guidance	Number of Guidelines
2010	NEL, data analyses, food pattern modeling analyses, and other scientific reports	Policy officials, nutritionists, nutrition educators	Americans two years of age and older, including those at risk of chronic diseases, to promote health and decrease risk of major chronic diseases	29 (23 for general population, 6 for specific population groups)
2015	NEL, data analyses, food pattern modeling analyses, and other scientific reports	Policy officials, nutritionists, nutrition educators	Americans two years of age and older, including those at risk of chronic diseases, to promote health and decrease risk of major chronic diseases	five overarching guidelines (accompanied by recommendations)

Source: Table developed by CRS based on materials from DGAC Meeting 1, "The Dietary Guidelines for Americans: 1980 to Present," see http://health.gov/dietaryguidelines/2015-BINDER/meeting1/evolutionOfDietaryGuidelines.aspx.

Note: The 2020 edition of the DGA is also to include guidance for an additional age group: birth to 24 months of age. DGA=Dietary Guidelines for Americans; DGAC= Dietary Guidelines Advisory Committee; NEL=Nutrition Evidence Library.

How Is the DGA Developed?

In the first stage of DGA development (see **Figure 1**), a DGAC is chartered following Federal Advisory Committee Act (FACA) guidelines. Within those guidelines, FACA requires that all advisory committees be strictly advisory and prohibits them from creating policy or issuing regulations.[10] The committee is generally composed of nationally recognized experts in the fields of human nutrition, food science, and chronic disease prevention. The experts' work is solely advisory and time-limited.[11] The DGAC provides an advisory scientific report to the Secretaries of HHS and USDA, who consider the report when writing the final DGA policy document.

[10] See CRS Report R40520, *Federal Advisory Committees: An Overview*.

[11] Generally, a Federal Advisory Committee (FAC) automatically terminates two years after it was established, unless the statutory authority used to establish the FAC provides a different duration.

Figure 1. The 2015 DGA Process: From Start to Finish

Source: Figure created by CRS based on information from USDA Center for Nutrition Policy and Promotion.

The 2015 DGAC was charged with examining the 2010 DGA, determining topics for which there was new scientific evidence and developing food-based recommendations that are of public health importance for Americans two years of age and older. Through the development process, the DGAC held seven public meetings to review and discuss the scientific evidence supporting the recommendations. To inform the revision of existing recommendations and suggest new guidance, the 2015 DGAC used systematic reviews, data analyses, and/or food pattern modeling analyses, as well as scientific evidence-based reports, input from guest speakers, and public comments. In addition, DGAC relied on the NEL to objectively review, evaluate, and synthesize research to answer nutrition and health questions.[12]

What Is the Nutrition Evidence Library's Role in DGA Development?

In 2008, CNPP established the NEL within its Evidence Analysis Library division to conduct food- and nutrition-related systematic reviews. The "state-of-the-art" systematic review (SR) methodology was developed in consultation with the Agency for Healthcare Research and Quality (AHRQ)—an agency within HHS, and the Academy of Nutrition and Dietetics (AND), and informed by the U.S. Cochrane Collaboration.[13] NEL uses a six-step process to conduct specialized systematic reviews that inform federal nutrition policy and

NEL's Six-Step Process

- Step 1: Develop systematic review (SR) questions
- Step 2: Search, screen, and select studies
- Step 3: Extract data and assess risk of bias of studies
- Step 4: Describe and synthesize the evidence
- Step 5: Develop conclusion statements and grade the evidence
- Step 6: Identify research recommendations

[12] HHS, 2015 DGA, "Questions and Answers"; see http://health.gov/dietaryguidelines/2015/qanda.asp.

[13] The Cochrane Collaboration is a "global independent network of researchers, professionals, patients, and people interested in health. Cochrane contributors - 37,000 from more than 130 countries - work together to produce credible,

programs.[14] The DGAC uses the NEL process to evaluate the evidence, which the DGAC then uses to inform the development of its Advisory Report. Where needed, NEL staff helped the DGAC carry out some steps of the NEL process.

The NEL was created to ensure compliance with the Consolidated Appropriations Act of 2001 (P.L. 106-554, the Data Quality Act), which directed the Office of Management of Budget (OMB) to issue government-wide guidelines that "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies."[15]

In accordance with the first step of the NEL process (see text box), the DGAC identified research questions to be addressed through systematic reviews and developed analytic frameworks to help answer those questions.[16] The DGAC worked with NEL staff to conduct multiple systematic reviews.[17] Once the literature search was completed, two CNPP professionals screened the resulting articles for inclusion criteria to determine whether those articles should be included for review by the DGAC. Throughout this process, the DGAC provided oversight to ensure that studies were being appropriately included or excluded from the review and that the final list of included articles was complete and captured all research available to answer the SR questions.[18]

Key information from each study was extracted, and a risk of bias assessment (an assessment of objectivity) was performed by an NEL abstractor. NEL staff reviewed the work of abstractors, resolved inconsistencies, and generated a summary draft of the body of evidence. The DGAC reviewed this work and used it to inform its synthesis of the evidence.[19]

Although NEL staff provided oversight and assistance throughout the NEL process, the DGAC made the substantive decisions. One of the final steps in the DGAC's systematic review process was writing and grading a conclusion statement for each question, based on the body of scientific evidence evaluated. The strength of the evidence supporting each conclusion statement was graded using predetermined criteria, which assessed the quality and quantity of studies, the consistency of findings across studies, the generalizability to the population of interest, and the magnitude of the effect or public health impact.[20]

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[14] J Obbagy, D Blum-Kemelor, E Essery, et al., "USDA Nutrition Evidence Library: methodology used to identify topics and develop systematic review questions for the birth-to-24-mo population," *American Journal of Clinical Nutrition*, vol. 99 (2014), pp. 663S-691S.

[15] The Data Quality Act has broader applicability than just the DGA, and has been used by various agencies (e.g., HHS, the Federal Trade Commission (FTC), the Patent and Trademark office) in guidance development.

[16] According to the NEL Methodology section of the 2015 DGAC, "The analytical framework serves as a visual representation of the overall scope of the project, provides definitions for key SR terms, helps to ensure that all contributing elements in the causal chain will be examined and evaluated, and aids in determining inclusion and exclusion criteria and the literature search strategy"; see http://www.nel.gov/topic.cfm?cat=3382.

[17] *Scientific Report of the 2015 DGAC*, Part C: Methodology; see http://health.gov/dietaryguidelines/2015-scientific-report/pdfs/scientific-report-of-the-2015-dietary-guidelines-advisory-committee.pdf.

[18] USDA NEL, Methodology: 2015 DGAC: Literature Search, Screen, and Select Studies to Review; see http://www.nel.gov/topic.cfm?cat=3383.

[19] USDA NEL, Methodology: 2015 DGAC: Extract Data and Assess the Risk of Bias; see http://www.nel.gov/topic.cfm?cat=3381.

[20] USDA NEL, USDA Nutrition Evidence Library Conclusion Statement Evaluation Criteria; see http://www.nel.gov/

On February 15, 2015, the 2015 DGAC submitted its recommendations, as well as the scientific rationale for those recommendations, in a 571-page advisory report to the Secretaries of HHS and USDA.[21] The Secretaries used that report, along with input from other federal agencies and public comments, to develop the final policy document, which was released on January 7, 2016.

The Scientific Report of the 2015 DGAC

What Recommendations Did the 2015 DGAC Make in Its Report?

In developing its recommendations, the 2015 DGAC was guided by "two fundamental realities": (1) the high prevalence of preventable chronic disease among U.S. adults, and (2) the assumption that individuals' nutrition, physical activity, and other lifestyle-related behaviors are strongly influenced by their personal, social, organizational, and environmental contexts.[22] As a result of these "realities," the DGAC framed its evidence review in the context of a socioecological model, examining how individual nutrition, physical activity, and other health-related lifestyle behaviors are influenced by personal, social, organizational, and environmental factors and systems.

Many recommendations contained in the 2015 DGAC's report were consistent with those of the 2010 DGA. For example, the 2015 DGAC's report concluded that a healthy dietary pattern is higher in vegetables, fruits, whole grains, low- or non-fat dairy, seafood, legumes, and nuts; moderate in alcohol (among adults); and low in sugar-sweetened foods and beverages and refined grains. These recommendations are consistent with the 2010 DGA recommendations to increase fruit and vegetable intake; consume at least half of all grains as whole grains; increase intake of fat-free or low-fat milk and milk products; and choose a variety of protein foods including seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds. The 2015 DGAC's report and the 2010 DGA both advised using oils to replace saturated fats and consuming seafood in place of some meat and poultry.

In addition, the 2015 DGAC determined that coffee consumption within the moderate range (three to five cups, or 400 mg, per day) is not associated with increased risk of major chronic diseases; dietary cholesterol does not appear to be associated with serum cholesterol (thus the committee did not bring forward the previous recommendation to limit cholesterol to 300 mg per day);[23] added sugar intake should be limited to less than 10% of total daily calories; and healthy dietary patterns are lower in red and processed meat. The DGAC report also contained various recommendations related to establishing healthy food environments (e.g., school meals, front-of-package nutrition labeling, and industry product reformulation), sustainability (i.e., concluding

vault/nel/files/files/NEL%20Grading%20Rubric_508c.pdf.

[21] HHS Office of Disease Prevention and Health Promotion, *Scientific Report of the 2015 Dietary Guidelines Advisory Committee*, February 19, 2015; see http://www.health.gov/dietaryguidelines/.

[22] *Scientific Report of the 2015 DGAC, Part A: Executive Summary*; see http://health.gov/dietaryguidelines/2015-scientific-report/02-executive-summary.asp.

[23] It is important to note that the panel said they were not minimizing the health risks of having high blood cholesterol levels. Elevated total cholesterol and low density lipoprotein cholesterol (LDL, "bad cholesterol") are associated with cardiovascular disease; however, the DGAC cites evidence demonstrating that intake of cholesterol-rich foods does not appear to increase total blood or LDL cholesterol. In the past, the effects of cholesterol may have been confounded by saturated fatty acid content, as cholesterol-rich foods (e.g., animal products) tend to also be high in saturated fat. And in randomized controlled trials, saturated fats have been shown to increase total and LDL cholesterol. Furthermore, other factors such as heredity (e.g., familiar hypercholesterolemia) or chronic disease (e.g., diabetes) are also factors for increased serum cholesterol levels.

that a plant-based diet is not only more health promoting but also better for the environment), and tax policy (e.g., taxing sugar-sweetened beverages).[24]

Which Key Issues Were Raised by Stakeholders with the 2015 DGAC's Report?

The DGAC's report addressed many issues of concern to public health, nutrition, and agricultural stakeholders. HHS and USDA received over 29,000 written comments during the 75-day comment period, as well as 73 oral comments at a March 2015 public meeting.[25] Stakeholders flagged several issues with the 2015 DGAC's report, particularly with the scope of the DGAC's recommendations, the process by which the DGAC made its conclusions and recommendations, and concerns over several specific recommendations.[26]

Scope

One concern noted by stakeholders with the DGAC's report was its scope, with some maintaining that the committee exceeded the scope of its charter by making certain policy recommendations. For example, although the 2015 DGAC's report noted that no food groups need to be entirely eliminated to improve food sustainability outcomes, the DGAC concluded that individuals should eat less red and processed meat in favor of a plant-based diet, as "a diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods is more health promoting and is associated with less environmental impact than is the current U.S. diet." The DGAC added that due to high consumption of animal-based foods (e.g., meat, eggs, and dairy products) and low intake of plant-based foods, the average U.S. diet may have a large impact on the environment in terms of increased Greenhouse Gas (GHG) emissions, land use, water use, and energy use.

In addition, the DGAC made several policy recommendations that raised concern among some stakeholders, including FDA revision of the Nutrition Facts label to include a mandatory declaration for added sugars, in both grams and teaspoons per serving, as well as a % daily value (DV);[27] alignment of federal nutrition assistance programs (e.g., SNAP and WIC) with the DGA; and use of economic and tax policies to encourage the production and consumption of healthy foods and to reduce consumption of unhealthy foods (e.g., by taxing sugar-sweetened beverages, snack foods, and desserts, and by restricting marketing of certain foods to children and teens).[28]

Some Members of Congress have said that the DGAC "had neither the expertise, evidence, nor charter" to make recommendations about matters of sustainability and tax policy,[29] and this

[24] *Scientific Report of the 2015 Dietary Guidelines Advisory Committee*, February 19, 2015, see http://www.health.gov/dietaryguidelines/.

[25] Testimony of Secretary of USDA Tom Vilsack, October 7, 2015, Committee on Agriculture Hearing, U.S. House of Representatives.

[26] Please note that this is not an exhaustive list of all the concerns surrounding the DGAC report.

[27] Per FDA's proposed supplemental rule, this %DV would be based on the recommendation that the daily intake of calories from added sugars not exceed 10% of total calories. For a 2,000 calorie diet, 10% would equate to approximately 50 grams of added sugar per day (10% of 2,000 equals 200 calories from added sugar; there are 4 calories per gram of sugar, so 200 calories divided by 4 equals 50 grams of added sugar per day).

[28] *Scientific Report of the 2015 DGAC,* Part D: Chapter 6: Cross-Cutting Topics of Public Health Importance; see http://health.gov/dietaryguidelines/2015-scientific-report/pdfs/scientific-report-of-the-2015-dietary-guidelines-advisory-committee.pdf.

[29] Letter from various Members of Congress to Secretaries Vilsack and Burwell, March 31, 2015; see

concern has been reiterated by some meat industry groups.[30] Meanwhile, others have supported the discussion surrounding sustainability, saying that it is important to have an understanding of how food production affects the environment.[31]

In response to these concerns, the HHS and USDA Secretaries determined that issues of sustainability and tax policy would not be part of the final policy document and that the DGA would "remain within the scope of our mandate in the 1990 National Nutrition Monitoring and Related Research Act (P.L. 101-445, NNMRRA), which is to provide 'nutritional and dietary information and guidelines' ... 'based on the preponderance of the scientific and medical knowledge.'"[32]

Process

Another stakeholder concern with the 2015 DGAC's report was the process used to evaluate the evidence. After the 2005 edition of the DGA, HHS and USDA committed to using an evidence-based, systematic review methodology (i.e., the NEL) to support the development of the 2010 DGAC report, and the same process was expected to be used in the development of the 2015 DGAC report.

The 2015 DGAC used the NEL to answer approximately 27% of its questions, relying on existing sources of evidence (e.g., existing reports and systematic reviews) to answer another 45%, and data analyses and food pattern modeling analyses to answer an additional 30%.[33] This approach is in contrast to the 2010 DGAC, which used the NEL to answer the majority of its research questions.[34] According to the 2015 DGAC, the majority of the scientific community now regularly uses systematic reviews, so unlike the 2010 DGAC, the 2015 DGAC was able to rely more heavily on existing sources of evidence (e.g., existing systematic reviews, meta-analyses, and reports) and to avoid duplicative efforts.[35]

Some criticized this use of existing reviews, questioning the scientific rigor and objectivity of the advisory report. For example, some argued that the 2015 DGAC bypassed the NEL process for certain issues (e.g., added sugars) and "almost solely used pre-existing and hand-picked

http://agriculture.house.gov/uploadedfiles/ag_dietaryguidelineslettertosecsvilsackburwell.pdf.

[30] National Cattleman's Beef Association, *NCBA Urges Secretaries to Reject Dietary Guidelines Advisory Committee's Flawed Recommendations* May 8, 2015; see http://www.beefusa.org/newsreleases1.aspx?newsid=4912#sthash.gecc7dMk.dpuf.

[31] A Aubrey, "New Dietary Guidelines Will not Include Sustainability Goal," *NPR*, October 13, 2015; see http://www.npr.org/sections/thesalt/2015/10/06/446369955/new-dietary-guidelines-will-not-include-sustainability-goal.

[32] Secretaries Vilsack and Burwell, "2015 Dietary Guidelines: Giving You the Tools You Need to Make Healthy Choices," USDA blog, October 6, 2015; see http://blogs.usda.gov/2015/10/06/2015-dietary-guidelines-giving-you-the-tools-you-need-to-make-healthy-choices/.

[33] These numbers were taken directly from the *Scientific Report of the 2015 DGAC*, Part C: Methodology. They do not add up to 100% for reasons unknown to CRS, but one explanation may be that multiple sources were used to answer certain questions.

[34] *Report of the 2010 DGAC on the Dietary Guidelines for Americans*, 2010, Part A: Executive Summary, page 1.

[35] *Scientific Report of the 2015 DGAC*, Part C: Methodology; see http://health.gov/dietaryguidelines/2015-scientific-report/pdfs/scientific-report-of-the-2015-dietary-guidelines-advisory-committee.pdf.

systematic reviews."[36] Others voiced concern that the 2015 DGAC relied heavily on weaker forms of science, such as observational evidence rather than the whole body of evidence.[37]

Particular Recommendations

In addition to the scope of the 2015 DGAC report and the committee's process, certain recommendations were criticized by various stakeholders and interest groups. For example, the 2015 DGAC concluded that diets lower in red and processed meat are more healthful and better for the environment. The recommendation to reduce consumption of red and processed meat was met with concern from some meat industry groups, who cited that meat is a nutrient-dense source of protein, including nutrients such as iron and B vitamins.[38]

The 2015 DGAC also concluded that intake of added sugars from sugar-sweetened beverages and foods is associated with excess body weight in children and adults. Although a daily value for added sugar had not been established, strong and consistent evidence demonstrates that a reduction of added sugars is associated with a reduction in body mass index (BMI)[39] in both children and adults. Thus, the 2015 DGAC recommended that intake of added sugars remain below 10% of total calorie intake. This recommendation was consistent with the 2010 DGA recommendation to reduce the intake of calories from solid fats[40] and added sugars. In regard to the added sugars recommendation, some food industry groups argued that there is a lack of evidence to justify a label that distinguishes between naturally occurring and added sugars because all sugars are equivalent in a nutritional sense,[41] and because there is not enough evidence to establish a quantitative limit on added sugars.

The 2015-2020 DGA

What Were the Recommendations in the 2015-2020 DGA?

The 2015-2020 DGA consists of five overarching guidelines, which are accompanied by "Key Recommendations" that provide further guidance on how individuals can follow the guidelines. Per the 2015-2020 DGA, the eating pattern described is not meant to be a "rigid prescription" but rather an "adaptable framework in which individuals can enjoy foods that meet their personal, cultural, and traditional preferences and fit within their budget."[42]

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[36] The Sugar Association, "Spotlight on 2015 Dietary Guidelines: 2015 DGAC Bypassed the Established Nutrition Evidence Library (NEL) Review Process," May 14, 2015; see http://www.sugar.org/spotlight-on-2015-dietary-guidelines-2015-dgac-bypassed-the-established-nutrition-evidence-library-nel-review-process/.

[37] National Cattleman's Beef Association, "NCBA Urges Secretaries to Reject Dietary Guidelines Advisory Committee's Flawed Recommendations," May 8, 2015; see http://www.beefusa.org/newsreleases1.aspx?newsid=4912#sthash.gecc7dMk.dpuf.

[38] Letter from the American Meat Science Association to HHS and USDA, May 7, 2015; see http://www.meatscience.org/docs/default-source/publications-resources/diet-and-health/amsa-dgac-scientific-report-comments-2015-5-7.pdf?sfvrsn=2.

[39] CDC, Nutrition, Physical Activity and Obesity: Data, Trends and Maps, http://nccd.cdc.gov/NPAO_DTM/. Obesity is defined as having a Body Mass Index (BMI) of 30 or higher. BMI= (weight in kg)/(height in m)^2.

[40] "Solid fats" refers to fats that are solid at room temperature. Examples include butter, margarine, lard, and shortening. Solid fats contribute an average of 19% of the total calories in American diets but provide few essential nutrients and no dietary fiber.

[41] See http://insidehealthpolicy.com/wlf-gma-added-sugar-req-nutrition-labels-violates-first-amendment.

[42] 2015-2020 DGA, "Chapter 1: Key Elements of a Health Eating Pattern," http://health.gov/dietaryguidelines/2015/

Guidelines[43]

1. **Follow a healthy eating pattern across the lifespan.** All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.
2. **Focus on variety, nutrient density, and amount.** To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.
3. **Limit calories from added sugars and saturated fats and reduce sodium intake.** Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.
4. **Shift to healthier food and beverage choices.** Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.
5. **Support healthy eating patterns for all**. Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.

Key Recommendations

The 2015-2020 DGA includes the recommendation to "consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level." A healthy eating pattern is described as one that includes

- a variety of vegetables from all the subgroups—dark green, red and orange, legumes (beans and peas), starchy, other;
- fruit, especially whole fruits;
- grains, at least half of which are whole grains;[44]
- fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages;
- a variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products; and
- oils.

A healthy eating pattern limits saturated fats and *trans* fats, added sugars,[45] and sodium. This eating pattern includes consuming less than 10% of calories per day from added sugars, less than 10% of calories per day from saturated fats, and less than 2,300 milligrams (mg) per day of

guidelines/chapter-1/healthy-eating-patterns/

[43] The five guidelines are taken verbatim from the executive summary of the *2015-2020 Dietary Guidelines for Americans*.

[44] Whole grains include grain and grain products made from the entire grain seed, which consists of the bran, germ, and endosperm.

[45] The phrase "added sugars" refers to sugars that are added during the processing of foods, including brown sugar, corn sweetener, corn syrup, dextrose, fructose, fruit juice concentrates, glucose, high fructose corn syrup, honey, invert sugar, lactose, maltose, malt sugar, molasses, raw sugar, turbinado sugar, trehalose, and sucrose.

sodium. If alcohol is consumed, it should be in moderation (one drink for women, two drinks for men) and only by those of legal drinking age.[46]

In addition, the 2015-2020 DGA includes the recommendation to meet the *Physical Activity Guidelines for Americans* (PGA). The PGA states that adults need at least 150 minutes of moderate intensity physical activity per week and should perform muscle-strengthening exercises on two or more days each week. Children and adolescents 6 to 17 years of age need at least 60 minutes of physical activity per day, including aerobic, muscle-strengthening, and bone-strengthening activities.

What Were the 2015-2020 DGA Recommendations on Intake of Red and Processed Meat, Caffeine, and Dietary Cholesterol?

The 2015-2020 DGA does not include a key recommendation to reduce consumption of red and processed meat as advised by the 2015 DGAC report. Chapter 1 of the 2015-2020 DGA states that strong evidence has shown that eating patterns with lower meat intake, including processed meat and lean process poultry, are associated with reduced risk of cardiovascular disease in adults. However, food pattern modeling analyses have shown that lean meats and lean poultry contribute important nutrients to a diet, and healthy eating patterns may include processed meats and poultry, within the daily limits for sodium, calories from saturated fats and added sugars, and calories.[47]

The text of the 2015-2020 DGA states that coffee consumption in the moderate range (e.g., up to 400 mg of caffeine per day, or approximately 3 to 5 cups of coffee) may be incorporated into healthy eating patterns.[48] The DGA adds that although coffee has minimal calories, coffee beverages often contain added sweeteners and creams, which should be limited to avoid adding extra calories; these same considerations apply to tea and other similar beverages. The 2015-2020 DGA does not differentiate between different sources of caffeine (e.g., coffee, tea, soda), but much of the available evidence on caffeine focuses on coffee intake; limited and mixed evidence is available regarding the relationship between high caffeine energy drinks and cardiovascular risk factors and other health outcomes.[49] The 2015-2020 DGA also states that mixing caffeine with alcohol is not generally recognized as safe by FDA, and increases the risk of alcohol-related adverse events.

The 2015-2020 DGA does not contain the 2010 DGA recommendation to limit daily dietary cholesterol (a nutrient found in animal products; examples include shrimp, eggs, and meat) consumption to less than 300 mg per day, stating a lack of adequate evidence for a quantitative limit for dietary cholesterol specific to the DGA.[50]

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[46] The 2015-2020 DGA defines one alcoholic drink equivalent as containing 14 g (0.6 fl oz) of pure alcohol. Reference beverages of this amount include 12 fluid ounces of regular beer (5% alcohol), 5 fluid ounces of wine (12% alcohol), or 1.5 fluid ounces of 80 proof distilled spirits (40% alcohol).

[47] Chapter 1 of the 2015-2020 DGA, "About Meats and Poultry," http://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/#callout-meat-poultry.

[48] Chapter 1 of the 2015-2020 DGA, "Caffeine," http://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/#callout-caffeine.

[49] Ibid.

[50] "Specific to the DGA" refers to the target population of the DGA. For example, a quantitative cholesterol limit may be appropriate for specific populations, such as individuals with type 2 diabetes or high cholesterol.

How Do the 2015-2020 DGA Recommendations Compare with the 2010 DGA and 2015 DGAC Reports?

The 2015-2020 DGA retains many of the recommendations made by the 2010 DGA, as well as those suggested by the 2015 DGAC's report. For example, the 2015-2020 DGA's definition of a healthy eating pattern is largely consistent with the patterns described in the 2010 DGA and the 2015 DGAC report. Similarly, recommendations about which nutrients to limit have remained consistent across the three documents, with some exceptions: the 2010 DGA recommended a quantitative daily limit on cholesterol, but the 2015-2020 DGA and 2015 DGAC's report did not; the 2015-2020 DGA and 2015 DGAC's report recommended a quantitative daily limit on added sugars, but the 2010 DGA did not (see **Table 2**). Further, the 2015-2020 DGA does not include references to sustainability or tax policy, as suggested in the 2015 DGAC's report.

Table 2. Differences Between the 2010 DGA, 2015-2020 DGA, and 2015 DGAC Report

2015-2020 DGA Key Recommendations	2010 DGA Key Recommendations	2015 DGAC's Scientific Report Recommendations
	Building Healthy Eating Patterns	
Consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.	Select an eating pattern that meets nutrient needs over time at an appropriate calorie level Account for all foods and beverages consumed and assess how they fit within a total healthy eating pattern Follow food safety recommendations when preparing and eating foods to reduce the risk of foodborne illness	The DGA report recommends consuming nutrient-dense forms of foods (those providing substantial amounts of vitamins, minerals and other nutrients and relatively few calories) "to ensure optimal nutrient intake without exceeding calorie intake or reaching excess or potentially toxic levels of certain nutrients."
	Foods and Nutrients to Increase	
A healthy eating pattern includes:	Eat a variety of vegetables, especially dark-green and red and orange vegetables and beans and peas.	A healthy dietary pattern is higher in:
A variety of vegetables from all the subgroups—dark green, red and orange, legumes (beans and peas), starchy, other,		Vegetables,
Fruit, especially whole fruits,	Increase fruit and vegetable intake.	Fruits,
Grains, at least half of which are whole grains,	Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.	Whole grains,
Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages,	Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.	Low- or non-fat dairy, and
A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products, and	Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds. Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry. Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.	Seafood, legumes, and nuts.

2015-2020 DGA Key Recommendations	2010 DGA Key Recommendations	2015 DGAC's Scientific Report Recommendations
Oils.	Use oils to replace solid fats where possible. Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in the American diet. These foods include vegetables, fruits, whole grains, and milk and milk products.	The DGAC recommends as the primary source of dietary fat, non-hydrogenated vegetable oils that are high in unsaturated fats and relatively low in saturated fats (e.g., soybean, corn, olive, and canola oils) instead of animal fats (e.g., butter, cream, beef tallow, and lard) or tropical oils (e.g., palm, palm kernel, and coconut oils).
Foods and Food Components to Reduce		
Limit calories from added sugars and saturated fats and reduce sodium intake. A healthy eating pattern limits: saturated fat and *trans* fats, added sugars, and sodium.	Reduce the intake of calories from solid fats and added sugars. Keep trans fatty acid consumption as low as possible by limiting foods that contain synthetic sources of *trans* fat, such as partially hydrogenated oils, and by limiting other fats. Limit the consumption of foods that contain refined grains, especially refined grains that contain solid fats, added sugars, and sodium.	A healthy dietary pattern is lower in red and processed meats, saturated and *trans* fat, sodium, and sugar-sweetened foods and drinks and refined grains.
Consume less than 10% of calories per day from added sugars.	*No quantitative recommendation for added sugars*	Consume less than 10% of calories per day from added sugars.
Consume less than 10% of calories per day from saturated fats.	Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.	Consume less than 10% of calories per day from saturated fats.
Consume less than 2,300 mg per day of sodium.	Reduce daily sodium consumption to less than 2,300 mg and further reduce intake to 1,500 mg among persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease. The 1,500 mg recommendation applies to about half of the U.S. population, including children, and the majority of adults.	Consume less than 2,300 mg of dietary sodium per day.

2015-2020 DGA Key Recommendations	2010 DGA Key Recommendations	2015 DGAC's Scientific Report Recommendations
No "Key Recommendation" for a quantitative cholesterol limit.	Consume less than 300 mg per day of dietary cholesterol.	The 2015 DGAC will not bring forward the recommendation to limit cholesterol to less than 300 mg per day because "available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum cholesterol, consistent with the conclusions of the American Heart Association/American College of Cardiology report."
If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age.	If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and two drinks per day for men—and only by adults of legal drinking age.	If alcohol is consumed, it should be consumed in moderation and only by adults of legal drinking age.
Americans of all ages should meet the *Physical Activity Guidelines for Americans*.	Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors Increase physical activity and reduce time spent in sedentary behaviors.	Strong evidence supports the importance of regular physical activity for health promotion and disease prevention in the U.S. population.
No "Key Recommendation" regarding controlling calorie intake.	Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages Maintain appropriate calorie balance during each stage of life—childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.	The focus of the 2015 DGAC Report is on dietary patterns rather than calories. However, the USDA food patterns provide examples of the Healthy U.S.-style pattern, the Healthy Mediterranean-style Pattern, and the Healthy Vegetarian Pattern at various calorie ranges.
	Women Capable of Becoming Pregnant	
No "Key Recommendations" for women who are capable of becoming pregnant.	Choose foods that supply heme iron, which is more readily absorbed by the body, additional iron sources, and enhancers of iron absorption such as vitamin C-rich foods Consume 400 mcg per day of synthetic folic acid (from fortified foods and/or supplements) in addition to food forms of folate from a varied diet	The DGAC supports the current FDA and EPA recommendations that women who are pregnant (or those who may become pregnant) and breastfeeding should not eat certain types of seafood—tilefish, shark, swordfish, and king mackerel—because of their high methyl mercury contents.

2015-2020 DGA Key Recommendations	2010 DGA Key Recommendations	2015 DGAC's Scientific Report Recommendations
	Women Who Are Pregnant or Breastfeeding	
No "Key Recommendations" for women who are pregnant or breastfeeding.	Consume 8 to 12 ounces of seafood per week from a variety of seafood sources Due to their high methyl mercury content, limit white (albacore) tuna to 6 ounces per week and do not eat the following four types of fish: tilefish, shark, swordfish, and kind mackerel If pregnant, take an iron supplement, as recommended by an obstetrician or other health care provider	
	Individuals Aged 50 and Older	
No "Key Recommendations" for individuals ages 50 years or older.	Consume food fortified with Vitamin B_{12}, such as fortified cereal, or dietary supplements	The 2015 DGAC's Report does not specifically address individuals who are 50 years of age and older.

Source: Table created by CRS using the *2010 Dietary Guidelines for Americans*, the *Scientific Report of the 2015 DGAC*, and then *2015-2020 Dietary Guidelines for Americans*.

Notes: Although there are no "Key Recommendations" for pregnant women, Chapter 2 of the DGA states that women who are pregnant are advised to take an iron supplement when recommended by a health care provider. In addition, the recommended daily allowance (RDA) of folic acid for women during pregnancy is 600 mcg. As mandated by the Agricultural Act of 2014 (the "Farm Bill"), the 2020-2025 DGA will expand to include infants and toddlers from birth to age two, as well as additional guidance for women who are pregnant.

What Has Been Congress's Role in the 2015-2020 DGA Development Process?

In response to stakeholder concern surrounding the scope of the 2015 DGAC's report and the process used to develop the 2015-2020 DGA, Congress included several DGA-related policy riders in the FY2016 Omnibus Appropriations Act (P.L. 114-113). Section 734 limited the scope of the 2015-2020 DGA to "nutritional and dietary information only." Section 735(a) required the Secretary of USDA, within 30 days of the enactment of the law, to engage the National Academy of Medicine (NAM, formerly the Institute of Medicine [IOM]) to conduct a comprehensive study of the process used to establish the 2015 DGAC and the subsequent development of the 2015 DGA. Section 735(b) further required that the NAM panel selected to conduct this study include a "balanced representation of individuals with broad experiences and viewpoints regarding nutrition and dietary information," and that this comprehensive study include an analysis of how

- the DGA can better prevent chronic disease, ensure nutritional adequacy for all Americans, and accommodate a range of individual factors, including age, gender, and metabolic health;
- the DGAC selection process "can be improved to provide more transparency, eliminate bias, and include committee members with a range of viewpoints";
- the NEL is compiled and used, including whether NEL and other systematic reviews, as well as data analyses, are conducted following "rigorous and objective scientific standards"; and
- systematic reviews are conducted on "longstanding" DGA recommendations, including "whether scientific studies are included from scientists with a range of viewpoints."

Section 735(b) also requires the NAM study to include recommendations on how to improve the DGA development process and to ensure the DGA "reflect balanced and sound science." Congress appropriated $1 million for this study.

What's Next for the DGA?

It remains to be seen how, if at all, the DGA development process will change pursuant to the findings of the congressionally mandated NAM study. In addition to any recommendations following NAM's mandated study, the 2020-2025 DGA will expand to include infants and toddlers from birth to age two, as well as additional guidance for women who are pregnant, as required by the 2014 Agricultural Appropriations Act (P.L. 113-79).

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