



October 2023

DIETARY GUIDELINES FOR AMERICANS

Strengthening Interagency Collaboration Could Help Inform Nutrition Research and Future Guidelines

Accessible Version

GAO Highlights

Highlights of [GAO-24-106130](#), a report to congressional requesters

Why GAO Did This Study

The U.S. faces a nutrition-related health crisis, according to recent federal data. Poor diet is a prominent risk factor for developing chronic health conditions. Dietary patterns emphasizing fruits, vegetables, and whole grains are associated with lower risk of developing diet-related chronic health conditions. HHS and USDA produce the dietary guidelines every 5 years to provide nutrition guidance reflecting the scientific consensus.

GAO was asked to review federal efforts to promote the current guidelines and identify research needed to inform future editions of the guidelines. This report (1) describes actions selected agencies have taken to promote the 2020-2025 guidelines and (2) examines HHS and USDA efforts to collaborate to identify and prioritize human nutrition research that may inform future editions.

GAO reviewed laws and agencies' documents and interviewed officials from DOD, HHS, USDA, and VA. GAO compared agency efforts with leading interagency collaboration practices identified in prior work. GAO interviewed a nongeneralizable sample of 10 stakeholders, such as academic researchers, selected based on their expertise.

What GAO Recommends

GAO is making two recommendations that the Secretaries of HHS and USDA ensure that the Assistant Secretary of Health and the USDA Chief Scientist—as co-chairs of the committee—fully incorporate seven leading collaboration practices, such as ensuring accountability. HHS generally agreed. USDA neither agreed nor disagreed.

View [GAO-24-106130](#). For more information, contact Steve Morris at (202) 512-3841 or morris@gao.gov.

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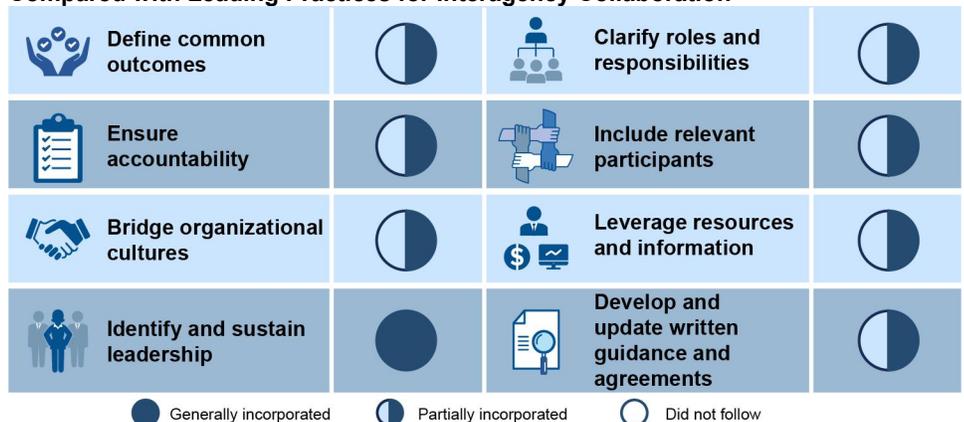
DIETARY GUIDELINES FOR AMERICANS

Strengthening Interagency Collaboration Could Help Inform Nutrition Research and Future Guidelines

What GAO Found

The Departments of Defense (DOD), Health and Human Services (HHS), Agriculture (USDA), and Veterans Affairs (VA) are taking various actions to promote the Dietary Guidelines for Americans. These guidelines contain nutritional and dietary information and guidance for the public, as required by law. For example, USDA updated MyPlate, which provides online tools and resources that translate the guidelines for consumer use. In addition, HHS and USDA co-chair a committee that, as required by law, reviews federal nutrition educational materials to ensure consistency with the current guidelines.

Assessment of Interagency Committee on Human Nutrition Research Efforts Compared with Leading Practices for Interagency Collaboration



Sources: GAO-23-105520 and GAO analysis of Interagency Committee on Human Nutrition Research interviews and information; Vector (icons). | GAO-24-106130

Text for Assessment of Interagency Committee on Human Nutrition Research Efforts Compared with Leading Practices for Interagency Collaboration

Leading practice	Assessment
Define common outcomes	Partially incorporated
Ensure accountability	Partially incorporated
Bridge organizational cultures	Partially incorporated
Identify and sustain leadership	Did not follow
Clarify roles and responsibilities	Partially incorporated
Include relevant participants	Partially incorporated
Leverage resources and information	Partially incorporated
Develop and update written guidance and agreements	Partially incorporated

Sources: GAO-23-105520 and GAO analysis of Interagency Committee on Human Nutrition Research interviews and information; Vector (icons). | GAO-24-106130

HHS and USDA co-chair the Interagency Committee on Human Nutrition Research, through which they collaborate to inform Dietary Guidelines for Americans related nutrition research priorities. The committee has taken various actions to inform nutrition research but has not fully incorporated seven of the eight leading practices identified by GAO for ensuring agencies are effectively

collaborating and thereby reducing the risk of overlap and duplication (see fig.). The committee has generally incorporated one of these practices to identify and sustain its leadership but has not incorporated others, such as ensuring accountability and clarifying roles and responsibilities. For example, for ensuring accountability, the committee does not have any mechanisms for tracking progress toward addressing nutrition research gaps, such as the relationship between diet during lactation and infant development outcomes. In addition, for clarifying roles and responsibilities, the committee has not taken actions to ensure that the research each agency conducts is complementary and not overlapping or duplicative. By fully incorporating these seven leading collaboration practices, the committee may be better able to identify and prioritize nutrition research related to addressing gaps identified in prior editions of the guidelines and informing future editions of the dietary guidelines. Doing so would also help the committee avoid the risks of unintentionally overlapping and duplicative research activities.

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Abbreviations

CDC	Centers for Disease Control and Prevention
DGA	Dietary Guidelines for Americans
DGAC	Dietary Guidelines Advisory Committee
DOD	Department of Defense
DRI	Dietary Reference Intake
FDA	Food and Drug Administration
HEI	Healthy Eating Index
HHS	Department of Health and Human Services
ICHNR	Interagency Committee on Human Nutrition Research
National Academies	National Academies of Science, Engineering, and Medicine
NIH	National Institutes of Health
USDA	U.S. Department of Agriculture
VA	Department of Veterans Affairs

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October 18, 2023

The Honorable David Scott
Ranking Member
Committee on Agriculture
House of Representatives
The Honorable Robert C. “Bobby” Scott
Ranking Member
Committee on Education and the Workforce
House of Representatives

The U.S. is facing an urgent nutrition-related health crisis, according to recent federal data.¹ The rising prevalence of diet-related diseases, such as type 2 diabetes, obesity, hypertension, and certain cancers, demonstrates the importance of healthy nutrition. According to a 2022 Department of Health and Human Services (HHS) report, the consequences of diet-related diseases are significant, far reaching, and disproportionately harmful to historically underserved communities, especially if coupled with food insecurity.² According to this HHS report, poor diet, such as those consisting of too much saturated fat, sodium, and added sugars, is a prominent risk factor for developing chronic health conditions, while dietary patterns emphasizing fruits, vegetables, and whole grains are associated with lower risk of developing diet-related chronic health conditions.³

¹White House, *Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health* (Washington, D.C.: September 2022). This report is based on various federal reports. See app. III for more information.

²U.S. Department of Health and Human Services, *Current Federal Programming and Coordination Efforts Related to Food and Nutrition Insecurity and Diet-Related Diseases* (July 2022). For example, the impacts include poor health, decreased academic achievement, increased financial stress, reduced workforce productivity, weakened national security (one in four young adults cannot qualify for the military due to weight or obesity), and increasing health care costs. In addition, according to U.S. Department of Agriculture (USDA) estimates, 10 percent of households experienced food insecurity in 2021, which means their access to adequate food was limited by lack of money and other resources.

³See app. III for more information about the links between diet, chronic health conditions, and food security.

The National Nutrition Monitoring and Related Research Act of 1990 requires HHS and the U.S. Department of Agriculture (USDA) to publish a report at least every 5 years that contains nutritional and dietary information and guidelines for the public.⁴ This report, known as the Dietary Guidelines for Americans (DGA), must be based on the preponderance of current scientific and medical knowledge, according to the act. As stated in the most recent 2020-2025 DGA, these guidelines provide science-based advice on what to eat and drink to promote health, reduce the risk of chronic disease, and meet nutrient needs. In addition to mandating the guidance itself, the act requires federal agencies, including the Departments of Defense (DOD) and Veterans Affairs (VA), HHS, and USDA to promote the DGA in carrying out their food, nutrition, and health programs.⁵

In August 2021, we reported on federal efforts to address diet-related chronic health conditions, including efforts to develop the DGA.⁶ We reviewed HHS and USDA's roles related to the DGA and identified 200 federal efforts related to diet—fragmented across 21 agencies—for reducing the risk of chronic health conditions.⁷ We recommended that Congress designate a lead agency to develop a national strategy for diet-related efforts aimed at reducing Americans' risk of chronic health conditions.⁸

Following our 2021 report and recommendation for a national strategy, Congress directed HHS to convene a White House conference in 2022

⁴Pub. L. No. 101-445, § 301(a)(1), 104 Stat. 1034, 1042-1043 (codified at 7 U.S.C. § 5341(a)(1)). HHS and USDA released the first report in 1980.

⁵Pub. L. No. 101-445, § 301(a)(1) (codified at 7 U.S.C. § 5341(a)(1)).

⁶GAO, *Chronic Health Conditions: Federal Strategy Needed to Coordinate Diet-Related Efforts*, [GAO-21-593](#) (Washington, D.C.: Aug. 17, 2021).

⁷GAO, *Fragmentation, Overlap, and Duplication: An Evaluation and Management Guide*, [GAO-15-49SP](#) (Washington, D.C.: April 2015). GAO previously defined fragmentation as those circumstances in which more than one federal agency (or more than one organization within an agency) is involved in the same broad area of national need, and opportunities exist to improve service delivery.

⁸As of July 5, 2023, this matter for congressional consideration has been partially addressed but remains open.

focused on food, nutrition, hunger, and health.⁹ Subsequently, in September 2022, the White House held a conference and released a national strategy to address hunger, nutrition, and health.¹⁰ In the national strategy, the White House announced a goal of ending hunger and increasing healthy eating and physical activity by 2030 so fewer Americans experience diet-related diseases, while reducing related health disparities.¹¹

The national strategy contains five pillars: improving food access and affordability, integrating nutrition and health, empowering all consumers to make and have access to healthy choices, supporting physical activity for all, and enhancing nutrition and food security research. Each pillar has associated steps the administration plans to pursue and calls to action for a whole-of-society response. For example, the administration plans on working toward expanding nutrition assistance programs and urging Congress to pass legislation expanding access to nutrition and obesity counseling for people on Medicare and Medicaid.

You asked us to review issues related to the DGA. This report (1) describes how selected federal agencies promote the 2020-2025 DGA and (2) examines HHS and USDA efforts to collaborate to identify and prioritize research that may inform future editions of the DGA. We also provide information in appendix II on views from selected federal agencies and stakeholders about the factors that may limit the extent to which individuals follow the 2020-2025 DGA.

⁹The joint explanatory statement outlining committee priorities for the 2022 Omnibus appropriation directed HHS to convene a White House Conference on Food, Nutrition, Hunger, and Health in 2022, for the purpose of developing a roadmap to end hunger and improve nutrition by 2030. Congress further directed that the conference be used to review existing and cross-departmental strategies and consider new approaches to improve health by eliminating hunger, reducing the prevalence of chronic disease, and improving access to and consumption of nutritious foods in accordance with the DGA. In addition, Congress directed the conference to produce a final report detailing its findings and proposed solutions to end hunger and improve nutrition security in the U. S. by 2030.

¹⁰White House, [Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health](#).

¹¹According to the national strategy, ending hunger will be measured by a reduction in the number of households with insufficient food (defined as very low food security) to less than 1 percent of households and cut the number of households struggling to put enough nutritious food on the table (defined as food insecurity) in half.

To describe how federal agencies promote the 2020-2025 DGA, we reviewed federal laws and guidance to identify relevant statutory requirements. For this objective, we selected DOD, HHS, USDA, and VA based on their roles and responsibilities associated with developing the DGA, disseminating information about nutrition, and incorporating nutrition guidance into services provided to military personnel and veterans. We also reviewed documentation from the selected agencies about their federal nutrition programs. We interviewed knowledgeable officials from these agencies about the agencies' efforts to promote the current DGA.

To examine HHS and USDA efforts to collaborate to identify and prioritize research that may inform future editions of the DGA, we reviewed agency documentation, including HHS's National Institutes of Health (NIH) Strategic Plan for NIH Nutrition Research.¹² We also interviewed knowledgeable officials from HHS and USDA. We selected these officials because of their roles and responsibilities to conduct research and develop the DGA. We also interviewed representatives of the National Academies of Science, Engineering, and Medicine (National Academies), which conducts research requested and funded by HHS, USDA, and other federal agencies, to obtain information about how HHS and USDA collaborate with entities outside of the federal government. Finally, we compared HHS's and USDA's collaborative efforts on research with eight leading practices for interagency collaboration we identified in prior work.¹³

To describe factors that may limit the extent to which individuals follow the 2020-2025 DGA, we reviewed agency documentation and interviewed officials from DOD, HHS, USDA, and VA. In addition, we interviewed 10 experts and representatives of organizations, selected for their expertise on dietary guidance, to obtain their perspectives and conducted a literature search and review of selected published articles. Please see appendix I for more details on the methodology used in this study.

We conducted this performance audit from July 2022 to October 2023 in accordance with generally accepted government auditing standards.

¹²U.S. Department of Health and Human Services, National Institutes of Health, *2020-2030 Strategic Plan for NIH Nutrition Research: A Report of the NIH Nutrition Research Task Force* (Bethesda, MD: May 2020).

¹³GAO, *Government Performance Management: Leading Practices to Enhance Interagency Collaboration and Address Crosscutting Challenges*, [GAO-23-105520](#) (Washington, D.C.: May 24, 2023).

Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

DGA Development Process

HHS's Office of the Assistant Secretary for Health and USDA's Food and Nutrition Service coordinate to develop the DGA, a document released every 5 years that contains nutritional and dietary information and guidelines for the public.¹⁴ The guidelines serve as the basis for federal agencies' efforts to carry out any federal food, nutrition, or health program.¹⁵ According to agency officials, HHS and USDA collaborate on each edition of the DGA and rotate responsibility for serving as the administrative lead.

For each edition of the DGA, HHS and USDA coordinate to select scientific experts for an external Dietary Guidelines Advisory Committee (DGAC) that independently reviews the current state of nutrition science. To facilitate the work of the DGAC, HHS and USDA propose scientific questions for the DGAC to address.¹⁶ To answer these questions, the

¹⁴The federal government developed the DGA for policymakers and nutrition and health professionals to help individuals and families consume a healthy and nutritionally adequate diet.

¹⁵Pub. L. No. 101-445, § 301(a)(1) (codified at 7 U.S.C. § 5341(a)(1)).

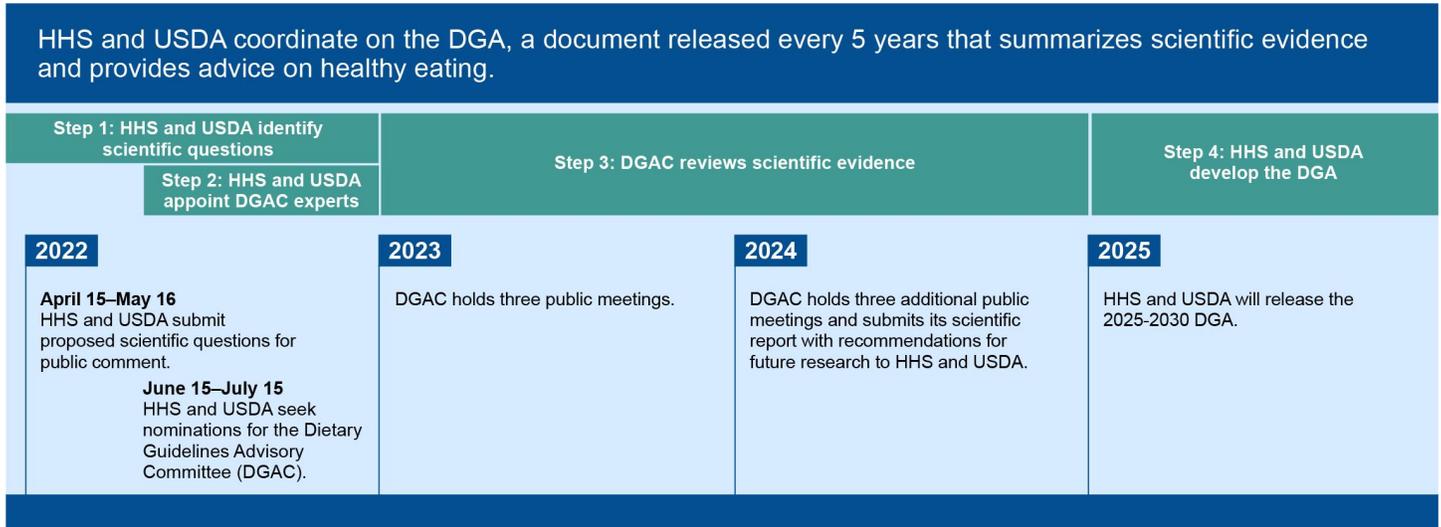
¹⁶In 2022, HHS and USDA publicly posted a list of proposed scientific questions for the 2025 DGAC to address in its scientific review, which will inform the 2025-2030 edition of the DGA. The proposed questions address the relationship between diet and risk of overweight and obesity, with a new emphasis on weight loss and weight maintenance. New questions also address ultra-processed foods and food-based strategies that can be used by individuals and families to support implementation of the DGA and help prevent or manage overweight and obesity. All scientific questions will be reviewed with a health equity lens to ensure that resulting guidance in the DGA is inclusive of people with diverse racial, ethnic, socioeconomic, and cultural backgrounds. Additionally, unless a specific population is identified in the question, the question will consider evidence across the life span, including for infants, toddlers, children, adolescents, adults, individuals who are pregnant or lactating, and older adults.

2025 DGAC uses three approaches to examine the current body of scientific evidence on nutrition and health:

- data analysis—a collection of analyses that use national data sets to describe the current health and dietary intakes of Americans;
- food pattern modeling—analyses that illustrate how changes to the amounts or types of foods and beverages in a dietary pattern might affect meeting nutrient needs, and is used to develop quantitative dietary patterns that reflect health-promoting patterns identified in systematic reviews and meet energy and nutrient needs; and
- Nutrition Evidence Systematic Reviews—an evidence synthesis project that answers important public health questions by using rigorous, transparent, systematic, and protocol-driven methods to search for, evaluate, analyze, synthesize, and grade the strength of the body of scientific evidence on topics relevant to federal policies and programs.

See figure 1 for information about the process HHS and USDA use to develop the DGA.

Figure 1: The U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA) Process for Developing the 2025-2030 Dietary Guidelines for Americans (DGA)



Source: GAO analysis of HHS and USDA information. | GAO-24-106130

Text for Figure 2: The U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA) Process for Developing the 2025-2030 Dietary Guidelines for Americans (DGA)

HHS and USDA coordinate on the DGA, a document released every 5 years that summarizes scientific evidence and provides advice on healthy eating.

Step	Year	Process
Step 1: HHS and USDA identify scientific questions	2022	April 15–May 16 HHS and USDA submit proposed scientific questions for public comment.
Step 2: HHS and USDA appoint DGAC experts	2022	June 15–July 15 HHS and USDA seek nominations for the Dietary Guidelines Advisory Committee (DGAC).
Step 3: DGAC reviews scientific evidence	2023	DGAC holds three public meetings.
	2024	DGAC holds three additional public meetings and submits its scientific report with recommendations for future research to HHS and USDA.
Step 4: HHS and USDA develop the DGA	2025	HHS and USDA will release the 2025-2030 DGA.

Source: GAO analysis of HHS and USDA information. | GAO-24-106130

Other agencies within HHS and USDA also lead federal efforts to conduct diet- and nutrition-related research that can inform the DGA. For example, USDA’s Agricultural Research Service has six human nutrition research centers and Food Systems Centers and Units that undertake various projects that can support the evidence base used to develop the DGA. According to USDA officials, the Western Regional Research Center in Davis, California, conducts research related to promoting human health and delaying the onset of chronic diseases. In addition, USDA’s National Institute of Food and Agriculture provides funding to individuals; institutions; and public, private, and nonprofit organizations to conduct certain research on DGA-related topics.¹⁷

Furthermore, USDA’s Agricultural Research Service’s What We Eat in America survey and USDA’s Economic Research Service’s consumer food data system are among the data sources used to inform the development of the DGA. USDA’s Economic Research Service also conducts economic research to inform and enhance public and private decision-making on topics related to the development and implementation of DGA recommendations. These topics include the U.S. food supply, food marketing, process, and access; food security; consumer food

¹⁷According to USDA officials, one of USDA’s main programs providing funding for DGA-related research is the National Institute for Food and Agriculture’s Agriculture and Food Research Initiative.

behavior and its determinants; and the USDA food and nutrition assistance programs.

NIH leads HHS's nutrition research efforts. In fiscal years 2019, 2020, and 2021, NIH provided a total of \$1.9, \$2.0, and \$2.1 billion, respectively, toward these efforts. In 2015, NIH established its Office of Nutrition Research to accelerate progress in nutrition research. This office develops, leads, and coordinates NIH-wide nutrition research projects in collaboration with NIH institutes, centers and offices. In addition, HHS's Centers for Disease Control and Prevention (CDC) has a role in supporting nutrition research. For example, CDC and HHS conduct the National Health and Nutrition Examination Survey, which is a national study designed to assess the health and nutritional status of adults and children in the U.S.¹⁸

The DGAC submits a report to the Secretaries of Agriculture and Health and Human Services with recommendations, including recommendations for future research to inform future editions of the DGA. The 2020 DGAC's scientific report was published in July 2020.¹⁹ Subsequently, HHS and USDA updated the DGA based on that report, plus information from other agencies and the public, and issued the 2020-2025 DGA in December 2020. The 2020-2025 DGA was the first to include specific recommendations for all life stages and, for the first time since the 1985 edition, it included recommendations for healthy dietary patterns for infants and toddlers.

The 2020 DGAC was the first committee asked to address questions specifically targeting pregnancy, lactation, and birth to 24 months life stages and, thus, identified research gaps that federal agencies could help address to inform future editions of the DGA. However, the 2020-2025 DGA was unable to fully address several key questions. For

¹⁸According to CDC officials, the DGAC relies heavily upon National Health and Nutrition Examination Survey data to obtain estimates of chronic disease and describe what Americans eat, including intake of food, beverages, and dietary supplements, nutrient intakes, dietary patterns, and related dietary behaviors. In addition to collecting data from participant interviews, the survey collects data from physical examinations on nutrition-related biomarkers and uses these data to identify nutrients of public health concern. The What We Eat in America survey is the dietary component of the National Health and Nutrition Examination Survey, which is conducted jointly between CDC, HHS, and USDA.

¹⁹U.S. Department of Agriculture, Agricultural Research Service, *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services* (Washington, D.C.: July 2020).

example, the DGAC found that there was insufficient evidence to address various topics related to the scientific questions posed by HHS and USDA, such as dietary patterns and habitual eating frequency (i.e., snacking, meal skipping, and intermittent fasting), based on the search criteria the DGAC set for its review. The DGAC also reported that it was unable to draw conclusions about relationships, such as the relationship between dietary patterns during lactation and infant developmental outcomes, between supplementation with omega-3 fatty acids and infant developmental outcomes, and between dietary patterns or consumption or avoidance of specific foods and food allergies or asthma. According to HHS officials, this was due to a lack of data, especially among specific populations, such as infants and women who are pregnant or lactating.

The DGA development process has also been subject to review by the National Academies. In 2016, Congress directed the Secretary of Agriculture to engage the National Academy of Medicine to, among other things, review the DGA development process.²⁰ In 2017, the National Academies issued reports that assessed ways to improve the DGAC expert selection process and to increase transparency, reduce bias, and broaden the range of viewpoints represented.²¹ The National Academies also evaluated the compilation and utilization of the Nutrition Evidence Library and other external systematic reviews, focusing on whether the systematic reviews, food pattern modeling, and data analysis used by the 2015 DGAC were rigorous by objective scientific standards.²²

These reports contained recommendations for improving the DGA process. Subsequently, in 2021, Congress mandated that the National Academies complete a review that includes a comparison of the development of the most recently issued guidelines with the 2017 recommendations and how full implementation of the recommendations

²⁰Consolidated Appropriations Act, 2016, Pub. L. No 114-113, div. A, tit. VII, § 735, 129 Stat. 2242, 2280 (2015).

²¹National Academies of Science, Engineering, and Medicine, *Optimizing the Process for Establishing the Dietary Guidelines for Americans: The Selection Process* (Washington, D.C.: 2017); and *Redesigning the Process for Establishing the Dietary Guidelines for Americans* (Washington, D.C.: 2017).

²²USDA's Nutrition Evidence Library is now called the Nutrition Evidence Systematic Review.

would have affected the most recently issued guidelines.²³ In 2022 and 2023, the National Academies released reports evaluating the process to develop the DGA.²⁴

HHS and USDA Healthy Eating Index Assessments of Americans' Diet Quality

The Healthy Eating Index (HEI) is a scoring metric that can be used to determine overall diet quality, as well as the quality of several dietary components. Specifically, this index is a measure of diet quality used to assess how well a set of foods and beverages, such as the foods commonly consumed by Americans, aligns with dietary pattern recommendations from the DGA. USDA originally released the index in 1995 as a tool to evaluate the extent to which Americans were following dietary recommendations. Since 2005, researchers from NIH's National Cancer Institute and USDA's Food and Nutrition Service, Center for Nutrition Policy and Promotion, have collaborated to update the HEI based on updates to the DGA. Because the 2020-2025 DGA included comprehensive recommendations for infants and toddlers, NIH and USDA recently updated the index for children and adults 2 years and older (the HEI-2020) and developed a new HEI for toddlers 12 months to 23 months old (HEI-Toddlers-2020) to reflect healthy eating across the life span.

The index uses a scoring system to evaluate a set of foods, ranging from 0 to 100. An ideal overall score of 100 means the set of foods aligns with key dietary recommendations from the DGA.²⁵ The index scores can be

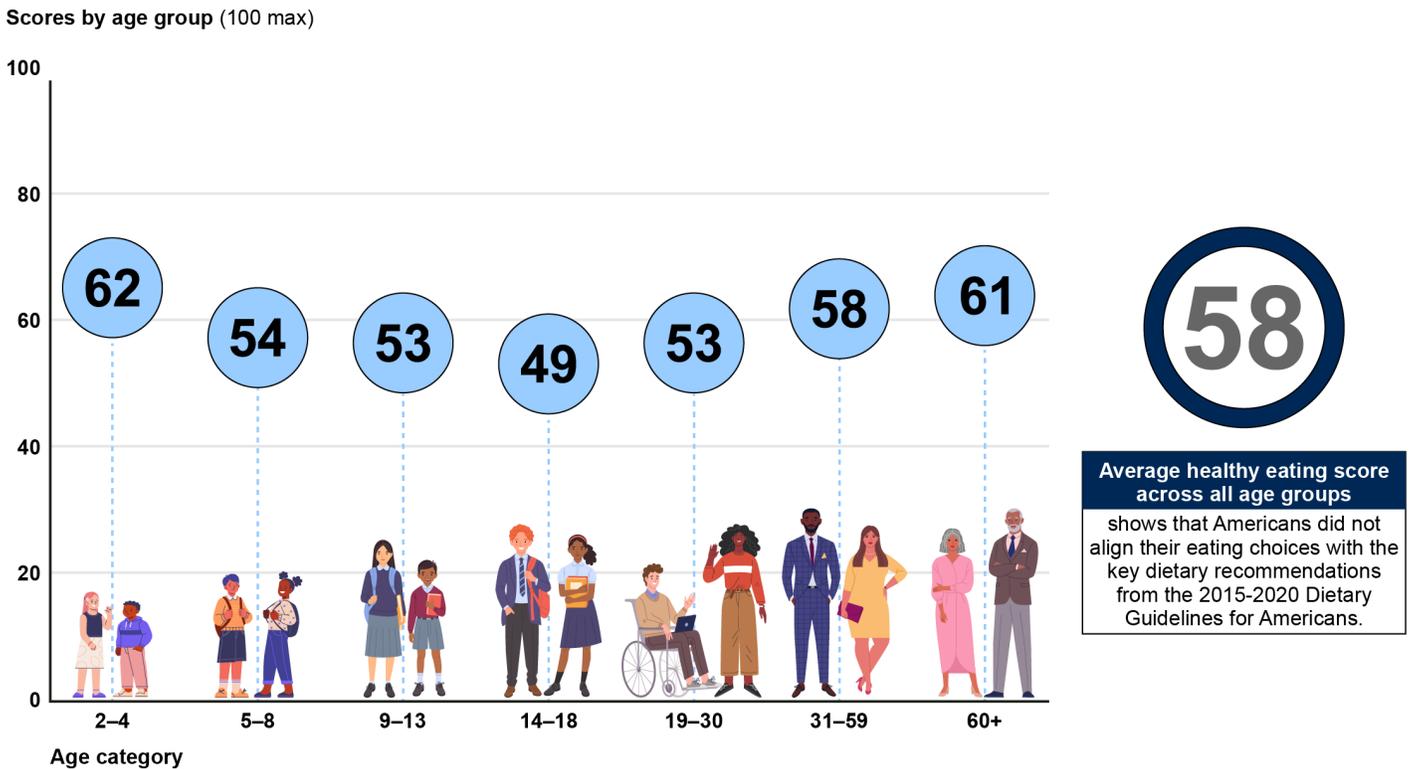
²³Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, div. A, tit. VII, § 796, 134 Stat. 1182, 1232 (2020).

²⁴National Academies of Science, Engineering, and Medicine, *Evaluating the Process to Develop the Dietary Guidelines for Americans, 2020-2025: A Midcourse Report* (Washington, D.C.: 2022); and *Evaluating the Process to Develop the Dietary Guidelines for Americans, 2020-2025: Final Report* (Washington, D.C.: 2023). These reports did not contain any new recommendations.

²⁵According to HHS's National Cancer Institute, a graded approach can be used to aid interpretation of the index scores. The grading system is as follows: Overall scores of 90 to 100, or component scores that are 90 percent to 100 percent of maximum score: A; Overall scores of 80 to 89, or component scores that are 80 percent to 89 percent of maximum score: B; Overall scores of 70 to 79, or component scores that are 70 percent to 79 percent of maximum score: C; Overall scores of 60 to 69, or component scores that are 60 percent to 69 percent of maximum score: D; and Overall scores of 0 to 59, or component scores that are 0 percent to 59 percent of maximum score: F.

examined among different age groups. For example, HEI findings based on data from the 2017-2018 cycle of National Health and Nutrition Examination Survey (What We Eat in America Survey) show that Americans overall scored 58 out of 100 and ranged from 49 to 62 out of 100 across all age categories, suggesting that the average diets of Americans do not align with the DGA (see fig. 2).²⁶

Figure 3: U.S. Department of Health and Human Services and U.S. Department of Agriculture Average Healthy Eating Index Scores for U.S. Population by Age Group, 2017 to 2018



Sources: GAO adaptation of USDA figure, Nadzeya26/stock.adobe.com (icons). | GAO-24-106130

²⁶For more information on USDA’s scoring method, see U.S Department of Agriculture, Food and Nutrition Service, Center for Nutrition Policy and Promotion, “*HEI Scores for Americans*,” accessed June 5, 2023, <https://www.fns.usda.gov/cnpp/hei-scores-americans>.

Data for Figure 4: U.S. Department of Health and Human Services and U.S. Department of Agriculture Average Healthy Eating Index Scores for U.S. Population by Age Group, 2017 to 2018

Average healthy eating score across all age groups shows that Americans did not align their eating choices with the key dietary recommendations from the 2015-2020 Dietary Guidelines for Americans.

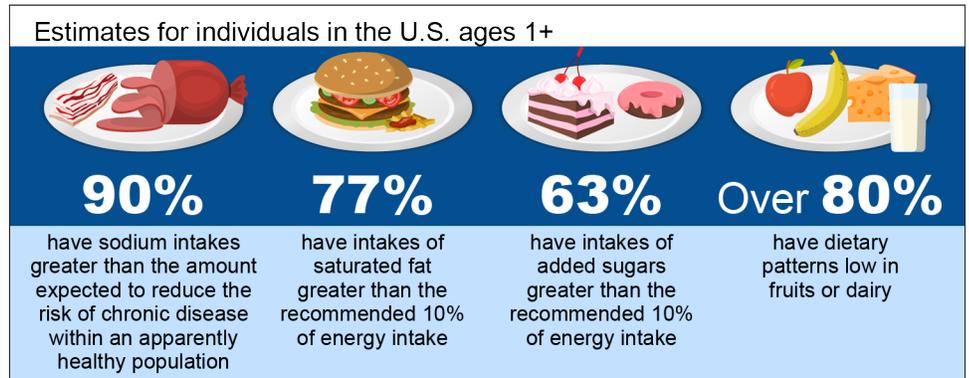
Age category	Scores by age group (100 max)
2-4	62
5-8	54
9-13	53
14-18	49
19-30	53
31-59	58
60+	61
Average across all age groups	58

Sources: GAO adaptation of USDA figure, Nadzeya26/stock.adobe.com (icons). | GAO-24-106130

Note: The U.S. Department of Agriculture (USDA) uses nationally representative survey data called What We Eat in America. These survey data are taken from the dietary intake interview component of the 2017-2018 National Health and Nutrition Examination Survey, in which Americans report the types and quantities of foods and beverages they consume in a 24-hour period. Nutritionists at USDA calculated average Healthy Eating Index scores for the American population using this information. The index scores range from 0 to 100. An ideal overall score of 100 means the set of foods aligned with key dietary recommendations from the 2015-2020 Dietary Guidelines for Americans.

A leading factor in Americans' low HEI scores, according to USDA, is that most Americans are exceeding DGA recommendations for sodium, saturated fat, and added sugars and are not consuming enough vegetables, fruits, and dairy (see fig. 3).

Figure 5: Recent U.S. Department of Agriculture Estimates Indicate Most Americans Are Not Following Dietary Recommendations



Sources: U.S Department of Agriculture officials and report; inspiring.team/stock.adobe.com (icons). | GAO-24-106130

Text for Figure 6: Recent U.S. Department of Agriculture Estimates Indicate Most Americans Are Not Following Dietary Recommendations

Estimates for individuals in the U.S. ages 1+

Over 80% have dietary patterns low in fruits or dairy

63% have intakes of added sugars greater than the recommended 10% of energy intake

77% have intakes of saturated fat greater than the recommended 10% of energy intake

90% have sodium intakes greater than the amount expected to reduce the risk of chronic disease within an apparently healthy population

Sources: U.S Department of Agriculture officials and report; inspiring.team/stock.adobe.com (icons). | GAO-24-106130

Note: The U.S. Department of Agriculture uses nationally representative survey data called What We Eat in America. These survey data are the dietary intake interview component of the National Health and Nutrition Examination Survey, in which Americans report the types and quantities of foods and beverages they consume in a 24-hour period. The percentages in the figure are based on data from the 2013-2016 and 2017-2018 National Health and Nutrition Examination Survey and have standard errors of 1.2 or less.

To learn more about the factors that may limit whether Americans follow the DGA, see appendix II.

Agencies Are Taking Actions to Meet Requirements for Promoting the DGA and Reviewing Federal Educational Materials

Selected agencies, including DOD, HHS, USDA, and VA, are taking various actions to promote the DGA, as required by statute. HHS and USDA are taking actions to conduct required reviews of federal nutrition education materials to ensure their consistency with the most recent DGA.

Selected Agencies Are Taking Various Actions to Promote the DGA, as Required by Statute

DOD, HHS, USDA, and VA are taking various actions to promote the DGA in their federal food, nutrition, and health programs, as required by the National Nutrition Monitoring and Related Research Act of 1990.²⁷ These actions fall into one of 11 categories: web-based resources, USDA nutrition assistance programs, national partnerships, toolkit for professionals, nutrition labeling, service to American Indian and Alaska Native communities, HHS nutrition services for older adults, military and veteran services, federal food service guidelines, technical assistance to federal agencies, and stakeholder outreach.

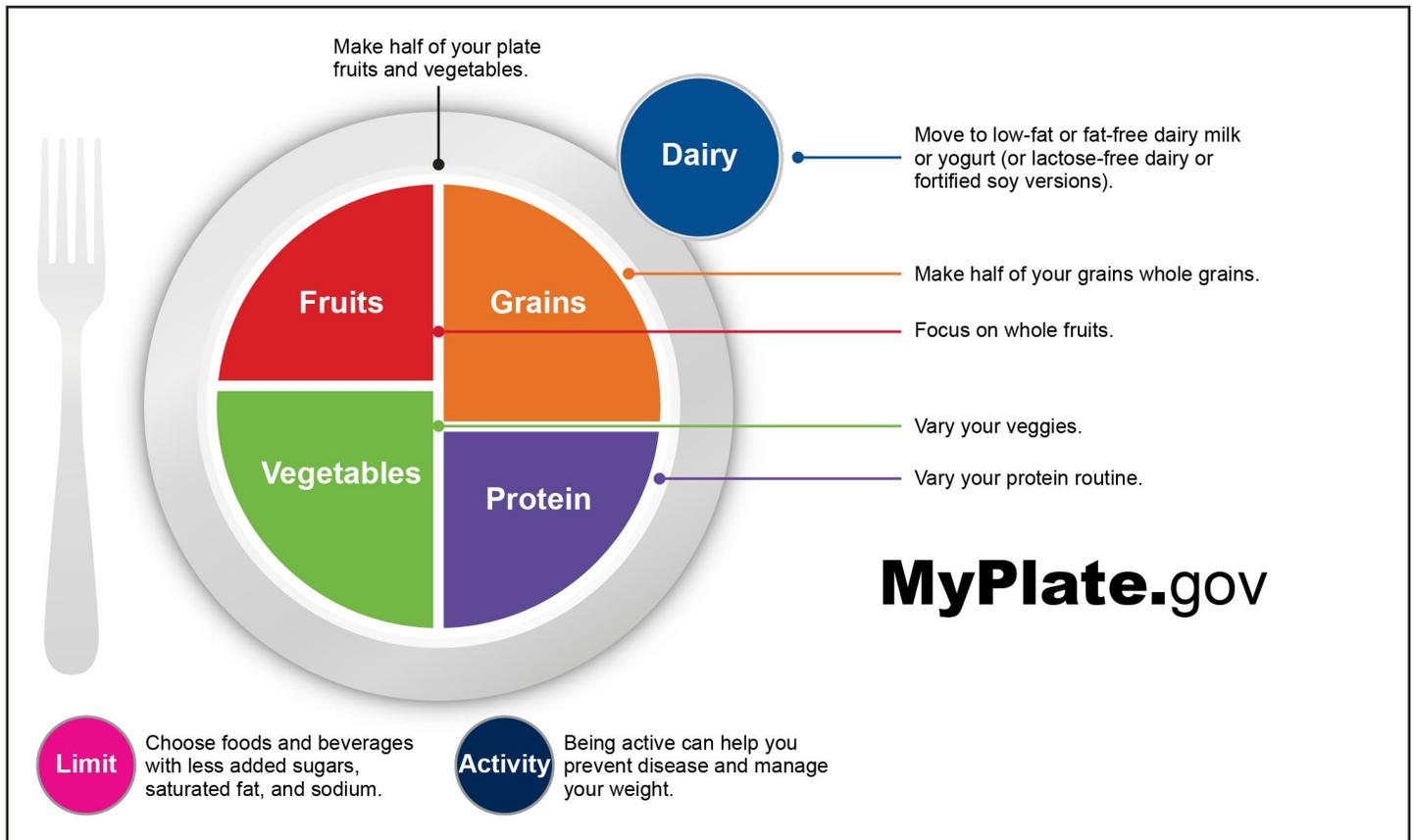
Web-based resources. HHS and USDA develop and manage web-based resources and tools, including the [DietaryGuidelines.gov](https://www.dietaryguidelines.gov) website.²⁸ For example, through the website, agencies provide tools and materials for health care professionals and consumers. In addition, USDA's [MyPlate.gov](https://www.myplate.gov) website provides tools and resources that translate the DGA for consumer use. In 2020, USDA updated MyPlate to reflect the 2020-

²⁷Pub. L. No. 101-445, § 301(a)(1) (codified at 7 U.S.C. § 5341(a)(1)). The act does not define promotion and does not include any enforcement mechanisms. According to USDA officials, the agency interprets that the congressional intent was for HHS and USDA to publicize the guidance and make it known to the public. According to HHS officials, the agency interprets this as a requirement to communicate the DGA recommendations to the general public and implement them through HHS programs, policies, and regulatory actions.

²⁸U.S. Department of Health and Human Services and U.S. Department of Agriculture, "Dietary Guidelines for Americans," accessed on Aug. 4, 2023, <https://www.dietaryguidelines.gov/>.

2025 DGA. See figure 4 for an example of USDA's MyPlate online communications.

Figure 7: Example of U.S. Department of Agriculture's MyPlate Online Communications for Consumers



Source: U.S. Department of Agriculture. | GAO-24-106130

Text for Figure 8: Example of U.S. Department of Agriculture's MyPlate Online Communications for Consumers

Make half of your plate fruits and vegetables. Move to low-fat or fat-free dairy milk or yogurt (or lactose-free dairy or fortified soy versions). Make half of your grains whole grains. Focus on whole fruits. Vary your veggies. Vary your protein routine. Choose foods and beverages with less added sugars, saturated fat, and sodium. Being active can help you prevent disease and manage your weight. MyPlate.gov

Source: U.S. Department of Agriculture. | GAO-24-106130

According to a 2022 HHS study, about one-quarter of U.S. adults had heard of MyPlate, and less than one-tenth had tried to follow the

recommendations.²⁹ HHS and USDA are taking various actions to improve their DGA promotion efforts. For example, in March 2022, HHS and USDA released print materials and figures from the DGA in Spanish, which are available on [DietaryGuidelines.gov](https://www.dietaryguidelines.gov), and consumer digital resources in Spanish on [MyPlate.gov](https://www.myplate.gov). For more information about factors that may limit the extent to which individuals follow the DGA, see appendix II.

USDA nutrition assistance programs. According to agency officials, USDA’s Food and Nutrition Service incorporates, to the extent practicable or when required by law, dietary recommendations from the DGA into its regulations and guidance for federal supplemental nutrition programs and other assistance programs. These programs serve a range of populations, including American Indian and Alaska Native people (e.g., Food Distribution on Indian Reservations), low-income individuals and families (e.g., the Supplemental Nutrition Assistance Program), children (e.g., National School Lunch Program), and older adults (e.g., Commodity Supplemental Food Program).

In addition, USDA uses the DGA to develop the Thrifty Food Plan, which describes the cost of a healthy diet on a limited budget and is the basis for maximum Supplemental Nutrition Assistance Program benefits.³⁰ For example, in 2021, in alignment with the 2020-2025 DGA, USDA reevaluated the Thrifty Food Plan and aimed to include a variety of commonly consumed foods and beverages that are lower in price and of

²⁹U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, *Awareness of the MyPlate Plan: United States, 2017-March 2020*, National Health Statistics Report, Number 178 (Washington, D.C.: Nov. 29, 2022). MyPlate awareness has improved compared with an earlier study of MyPlate awareness. Specifically, a study of MyPlate awareness from 2013-2014 found that about 20 percent of U.S. adults had heard of MyPlate, and approximately 35 percent of these people tried to follow the MyPlate recommendations.

³⁰The Agricultural Improvement Act of 2018 established a requirement for USDA to reevaluate the Thrifty Food Plan every 5 years, “based on current food prices, food composition data, consumption patterns, and dietary guidance.” Pub. L. No. 115-334, § 4002, 132 Stat. 4490, 4624 (amending 7 U.S.C. § 2012(u)). While past reevaluations also incorporated data on these four elements, the 2018 Farm Bill codified them in law and added the requirement for regular updates. See GAO, *Thrifty Food Plan: Better Planning and Accountability Could Help Ensure Quality of Future Reevaluations*, [GAO-23-105450](https://www.gao.gov/products/GAO-23-105450) (Washington D.C.: Dec. 14, 2022).

higher nutrition quality to support healthy meals and snacks at home on a limited budget.³¹

National partnerships. USDA's Center for Nutrition Policy and Promotion, an office in USDA's Food and Nutrition Service, promotes awareness of MyPlate, in part, through its National Strategic Partners program. USDA's national strategic partners consist of companies and organizations that are national in scope and fulfill certain requirements. For example, the national strategic partners must have a health mandate consistent with the 2020-2025 DGA and the mission of USDA's Center for Nutrition Policy and Promotion.³²

Toolkit for professionals. HHS developed the Dietary Guidelines Toolkit for Health Professionals as a resource for health care professionals to inform individuals about the DGA. This toolkit reflects the recommendations of the 2020-2025 DGA. HHS provides this information and other DGA resources on its health.gov website and through DietaryGuidelines.gov.³³

Nutrition labelling. According to HHS officials, HHS's Food and Drug Administration (FDA) has taken various regulatory actions to support healthier dietary choices. FDA also provides resources and information about using nutrition labels in a way that is consistent with DGA guidance.

³¹U.S. Department of Agriculture, Food and Nutrition Service, *Thrifty Food Plan, 2021*, FNS-916 (Washington, D.C.: August 2021). We reviewed USDA's 2021 reevaluation of the Thrifty Food Plan and found that key project management and quality assurance practices were not in place, including specific guidelines to ensure that methodological decisions meet standards for an economic analysis. We made eight recommendations to improve future Thrifty Food Plan reevaluations. USDA did not explicitly agree or disagree with our recommendations, but it stated that it concurred with select elements of our review and outlined steps planned or underway that align with the intent of some of our recommendations. These recommendations remain open as of August 2, 2023. See [GAO-23-105450](https://www.gao.gov/products/GAO-23-105450).

³²Other requirements include commitments to (1) promote nutrition content in the context of the entirety of the DGA, (2) disseminate DGA messages, and (3) participate in USDA sessions to develop and execute a joint strategic nutrition promotion plan annually. Examples of partners include large, national organizations, such as health care corporations, media outlets, grocery retailers, health professional associations, restaurant chains, and food manufacturers.

³³Examples of resources include information for health professionals to talk to patients about healthy eating, and information for patients to learn about building healthy eating routines at different stages of life; cutting down on added sugars, sodium, and saturated fat; and making healthy drink choices.

For example, FDA's website provides information on several topics, such as

- how to use the updated Nutrition Facts label,³⁴
- added sugars and sodium reduction,
- using the Nutrition Facts Label and MyPlate to make healthier choices,
- the definition of the claim "healthy" on food packaging labels,³⁵
- advice about eating fish for those who are or are planning to become pregnant or breastfeeding and for children ages one to 11, and
- consuming plant-based milk alternatives.³⁶

Service to American Indian and Alaska Native communities. HHS's Indian Health Service incorporates the DGA into best practices and educational resources for nutrition, including webinars and educational information. For example, in recent years, HHS sponsored nutrition-related events, such as a webinar on food insecurity.³⁷ The Indian Health Service also develops and provides free, culturally relevant, nutrition-related educational materials and resources available online.³⁸ In addition, the Indian Health Service is administering a Produce Prescription Pilot Program with the aim to demonstrate and evaluate the impact of produce prescription programs on American Indian and Alaska Native people and their families. More specifically, the overall goal is to

³⁴U.S. Food and Drug Administration, "The New Nutrition Facts Label: What's In It for You," accessed on June 15, 2023, www.fda.gov/NewNutritionFactsLabel.

³⁵U.S. Food and Drug Administration, "Use of the Term Health on Food Labeling," accessed on Feb. 13, 2023, <https://www.fda.gov/food/food-labeling-nutrition/use-term-healthy-food-labeling>.

³⁶U.S. Food and Drug Administration, "Using the Nutrition Facts Label to Choose Milk and Plant-Based Beverages," accessed on June 15, 2023, <https://www.fda.gov/food/nutrition-education-resources-materials/using-nutrition-facts-label-choose-milk-and-plant-based-beverages>.

³⁷U.S. Department of Health and Human Services, Indian Health Service, "Nutrition," accessed on June 13, 2023, <https://www.ihs.gov/diabetes/training/cmece-online-edu/recorded-cme-ce-webinars/nutrition/>.

³⁸U.S. Department of Health and Human Services, Indian Health Service, "Division of Diabetes Treatment and Prevention Online Catalog," accessed on June 13, 2023, <https://www.ihs.gov/diabetes/education-materials-and-resources/>.

improve health care outcomes by reducing food insecurity and improving overall dietary health by increasing consumption of fruits, vegetables, and traditional tribal foods.

HHS nutrition services for older adults. HHS serves older adults with nutrition services, as required by the Older Americans Act.³⁹ For example, HHS's Administration for Community Living provides DGA-compliant meals to older adults through grants to states.⁴⁰ The Administration for Community Living provides meals and nutrition services without regard to income, but it targets those at highest social and economic need, such as individuals who are at risk for institutionalization, rural individuals, non-English speaking older adults, and veterans. The Administration for Community Living also conducts outreach and dissemination of information regarding the DGA. In addition, HHS assists states to develop policies that align with the DGA. To assist with this effort, HHS published a Toolkit for Senior Nutrition Programs that includes training and guidance.⁴¹

Military and veteran services. DOD and VA use the DGA to develop nutrition materials and educate their personnel and patients and track the progress of these educational programs as it relates to building knowledge about nutrition recommendations.⁴² For example, according to DOD officials,

³⁹The Older Americans Act of 1965, Pub. L. No. 89-73, § 339, 79 Stat. 218, as added by the Older Americans Act Amendments of 1992, Pub. L. No. 102-375, § 317, 106 Stat. 1195, 1241 (codified as amended at 42 U.S.C. § 3030g-21(2)(A)(i)). As previously discussed, USDA also has nutrition assistance programs for older adults.

⁴⁰We previously noted that the federal nutrition guidelines—the DGA and Dietary Reference Intakes (DRI)—provide broad nutrition guidance but do not address the nutritional needs of older adults, including those with multiple chronic conditions. We recommended that HHS document the department's plan to focus on the specific nutritional needs of older adults in the 2025-2030 DGA update, and HHS officials implemented this recommendation. See GAO, *Nutrition Assistance Programs: Agencies Could Do More to Help Address the Nutritional Needs of Older Adults*, [GAO-20-18](#) (Washington, D.C.: Nov. 21, 2019).

⁴¹U.S. Department of Health and Human Services, "*Dietary Guidelines for Americans and Older Adults: Toolkit for Senior Nutrition Programs*," accessed on June 9, 2023, <https://acl.gov/senior-nutrition/DGAtoolkit>.

⁴²GAO is conducting a separate review of DOD's efforts to ensure that healthy and nutritious meal options are available to service members.

- DOD utilizes the DGA as the basis for its nutrition programs and nutrition research for its warfighters. For example, the Army—the service that takes the lead for nutrition within DOD—incorporates the DGA in its Army Regulation 40-25, which establishes nutritional requirements for training and operational readiness;⁴³
- DOD utilizes the DGA for its Army Buyers Guide, which outlines what food DOD purchases and provides to its members;
- DOD provides nutrition education to military personnel and their families through its Go For Green program;
- The Army assesses the results of nutrition education efforts through the Military Eating Behavior Survey—a nutrition knowledge assessment—to determine the role of nutrition, when service members fail physical fitness tests; and
- DOD incorporated the DGA into its Military Nutrition Environment Assessment Tool, which evaluates the nutritional quality of food available to its warfighters.

VA's Veterans Health Administration Nutrition and Food Services oversees all of the clinical nutrition and medical nutrition therapy services offered to veterans that visit any VA medical center or clinic, as well as the food service operations for veterans who are admitted to VA medical inpatient units, community living centers, or rehabilitation units.⁴⁴

According to VA officials, VA's Healthy Diet policy directs VA hospitals to follow the DGA, and VA incorporates DGA recommendations into its programs, including the MOVE! Weight Management Program; medical nutrition therapy counseling programs; and Healthy Teaching Kitchen Program, which teaches veterans how to cook and prepare healthy foods.

Federal food service guidelines. Federal agencies, including DOD, USDA, and VA, were part of a federal workgroup that supported HHS in its release, in 2017, of the latest version of the Food Service Guidelines for Federal Facilities. These guidelines provide specific standards for food, nutrition, facility efficiency, environmental support, community development, food safety, and behavioral design for use in food service

⁴³Headquarters Departments of the Army, the Navy, and the Air Force, *Medical Services: Nutrition and Menu Standards for Human Performance Optimization*, Army Regulation 40-25, OPNAVINST 10110.1/MCO 10110.49, AFI 44-141 (Washington, D.C.: Jan. 3, 2017).

⁴⁴U.S. Department of Veterans Affairs, "Nutrition and Food Services," accessed on June 5, 2023, <https://www.nutrition.va.gov/>.

concession and vending operations at federal facilities.⁴⁵ This update was intended to ensure, among other things, that the guidelines align its food and nutrition standards with the 2015-2020 DGA. According to HHS officials, the agencies plan to update the guidelines to ensure they are consistent with the 2020-2025 DGA.

Technical assistance to federal agencies. HHS and USDA provide technical assistance concerning dietary guidelines to each other and to other federal agencies, such as by reviewing draft food label regulations and reviewing scientific reports from USDA's Research, Education, and Economics mission area and providing input on regulatory updates to USDA food assistance programs. For example, in February 2023, USDA proposed updates to nutrition standards for its child nutrition programs to ensure that meal patterns are consistent with the 2020-2025 DGA.⁴⁶ In addition, USDA supported working groups tasked with updating Nutrient Standards for Disaster Meals.

Stakeholder outreach. HHS and USDA conduct outreach to stakeholders, such as nutritionists and public health and health care professionals, through webinars, presentations, workshops, peer-reviewed publications, and tools promoting the DGA. For example, USDA delivered a MyPlate presentation at the Supplemental Nutrition Assistance Program–Education New York Conference, and FDA provided webinars and presentations on the updated Nutrition Facts label, including to the Society for Nutrition Education and Behavior. In addition, according to USDA officials, USDA's National Institute of Food and Agriculture uses DGA recommendations and MyPlate materials in the Expanded Food and Nutrition Education Program and other nutrition education programs to reach historically underserved populations, such as families with low incomes. Furthermore, USDA's National Institute of Food and Agriculture supports the Land-Grant University Cooperative Extension System, which also utilizes DGA recommendations and MyPlate materials in its nutrition education and outreach efforts.

⁴⁵U.S. Department of Health and Human Services, Food Service Guidelines Federal Workgroup, *Food Service Guidelines for Federal Facilities* (Washington, D.C.: 2017).

⁴⁶*Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans*, 88 Fed. Reg. 8050 (Feb. 7, 2023).

HHS and USDA Established a Process to Conduct Required Reviews of Federal Nutrition Education Materials for Alignment with the DGA

The National Nutrition Monitoring and Related Research Act of 1990 directs the Secretaries of HHS and USDA to review and approve or disapprove any federal dietary guidance for the general population or identified population subgroups, including nutrition education materials, to ensure consistency with the DGA.⁴⁷ HHS and USDA established the Dietary Guidance Review Committee in 2015.⁴⁸ Both agencies co-chair the committee's efforts to ensure that federal nutrition education materials for the public are consistent with the latest DGA.⁴⁹ Prior to 2015, HHS and USDA reviewed nutrition materials at their respective departments but did not always jointly review nutrition materials.

According to USDA officials, the review committee works to ensure that dietary guidance from the federal government accurately reflects the DGA and that education materials are supported by research-based knowledge that is objective. Furthermore, HHS and USDA use the review committee to exchange information on ways to improve the effectiveness of dietary guidance publications through education opportunities and discussion forums.

The committee meets quarterly to review educational materials. According to USDA officials, materials that need to be reviewed are those that contain "guidance on diet" and other related topics found in the DGA intended for generally healthy Americans, as well as those at increased risk of chronic disease. The types of materials that need to be reviewed can include, but are not limited to, handouts, brochures, infographics, and website content, and scripts used in radio or videos. USDA's National

⁴⁷Pub. L. No. 101-445, § 301(a)(1) (codified at 7 U.S.C. § 5341(b)(2)(A)).

⁴⁸This committee was established as the result of a merger between USDA's Dietary Guidance Work Group and HHS's Committee on Dietary Guidance.

⁴⁹HHS and USDA are not required to review educational materials that have already been through this committee process and repurposed in different communication materials or other materials, such as materials intended for nutrition or medical professionals, or materials that are regulatory in nature. Examples include Nutrition Monitoring Reports; reports prepared by the National Academies; peer-reviewed publications; and dietary guidance materials developed and distributed at regional, state, and local levels not carrying the HHS or USDA name or logo.

Agricultural Library's Food and Nutrition Information Center maintains the consumer materials reviewed by the committee.

HHS and USDA Use Various Means to Identify and Prioritize Nutrition Research but Have Not Fully Incorporated Leading Interagency Collaboration Practices

HHS and USDA use various internal processes and interagency collaborative mechanisms to identify and prioritize DGA-related human nutrition research but have not fully incorporated leading collaboration practices to inform research priorities and gaps. HHS and USDA consider many sources, such as the scientific report of each DGAC, to inform human nutrition research priorities and gaps. HHS and USDA use the Interagency Committee on Human Nutrition Research (ICHNR) and other collaborative mechanisms to inform federal human nutrition research priorities and address gaps to support the development of future DGA editions. However, we found that HHS and USDA, who also co-chair the ICHNR, have only partially incorporated seven of the eight leading practices for enhancing interagency collaboration identified in our prior work, such as ensuring accountability and leveraging resources and information.

HHS and USDA Use Various Means to Internally and Collaboratively Identify and Prioritize Human Nutrition Research

HHS and USDA use various agency documents, such as agency-level strategic plans, and interagency collaborative mechanisms, such as the ICHNR, to identify and prioritize DGA-related human nutrition research.⁵⁰

⁵⁰No federal agency is solely responsible for conducting research to inform the development of the DGA.

HHS and USDA Use Internal Means to Identify and Prioritize Research That May Inform the DGA

According to HHS officials, NIH is the main research-funding agency within HHS. The Office of Nutrition Research leads NIH's strategic planning and development of nutrition research initiatives. In 2020, NIH published its strategic plan for nutrition research, outlining its strategic goals for nutrition research.⁵¹ The Office of Nutrition Research plays a key role in implementing NIH's Strategic Plan for NIH Nutrition Research and evaluating progress toward its goals, objectives, and crosscutting research areas. NIH-supported conferences, seminars, videos, webinars, workshops, and other educational opportunities also play a key role in providing forums for stakeholders to share information and identify research gaps and scientific priorities, as well as stimulate new areas for research that could inform the DGA.

In addition, NIH's Nutrition Research Coordinating Committee plays a key role in improving communication and research coordination of nutrition activities within the NIH and across the federal government. This committee is chaired by the Director of the Office of Nutrition Research, and its monthly meetings typically include scientific seminars, nutrition research program and policy updates, information about research interests, and collaborative project activities.⁵²

According to USDA officials, USDA's Research, Education, and Economics mission area—which includes the Agricultural Research Service, Economic Research Service, National Institute of Food and Agriculture, National Agricultural Statistics Service, and Office of the Chief Scientist—leads USDA's efforts to identify and prioritize human nutrition research that may inform the DGA. The Human Nutrition Program—an Agricultural Research Service national program—leads USDA's in-house human nutrition research. The Human Nutrition Program issues 5-year

⁵¹U.S. Department of Health and Human Services, National Institutes of Health, *2020-2030 Strategic Plan for NIH Nutrition Research: A Report of the NIH Nutrition Research Task Force* (Bethesda, MD: May 2020).

⁵²Examples of agencies this committee works with include HHS agencies, such as CDC and FDA, and other federal agencies, such as USDA and DOD.

action plans to address its human nutrition research priorities.⁵³ According to USDA officials, the Agricultural Research Service uses the 2020 DGAC Scientific Report, previous versions of the DGA, and the Dietary Reference Intake (DRI) process to identify research priorities. In addition, the Office of the Chief Scientist led the development of the recent USDA Science and Research Strategy, which includes a component on nutrition.⁵⁴

USDA and HHS Use the Interagency Committee on Human Nutrition Research to Improve Planning and Coordination of Human Nutrition Research

HHS and USDA established the ICHNR to improve planning, coordination, and communication among federal agencies engaged in research in nutrition or nutrition policies, surveillance, technologies, and related issues. The ICHNR co-chairs and co-executive secretaries are from HHS and USDA. See fig. 5 for an overview of the ICHNR.

⁵³U.S. Department of Agriculture, Agricultural Research Service, *Action Plan: National Program 107 – Human Nutrition 2019-2024* (Washington, D.C.: October 2018); and *National Program 107 – Human Nutrition 2024-2029 Action Plan* (Washington, D.C.: October 2022).

⁵⁴U.S. Department of Agriculture, *Science and Research Strategy, 2023-2026, Cultivating Scientific Innovation* (Washington, D.C.: May 2023). This strategy includes bolstering nutrition security and health as one of its top five research priorities.

Figure 5: Description of the Interagency Committee on Human Nutrition Research

Purpose: Improve planning, coordination, and communication among federal agencies engaged in research in nutrition or nutrition policies, surveillance, technologies, and related issues.
Established: 1983
Member agencies: U.S. Departments of Agriculture (USDA), Commerce, Defense, Health and Human Services (HHS), and Veterans Affairs; the Environmental Protection Agency; the National Aeronautics and Space Administration; the National Science Foundation; United States Agency for International Development; and the White House Office of Science and Technology Policy
Co-chairs: Assistant Secretary of Health (HHS) and Under Secretary for Research, Education, and Economics/Chief Scientist (USDA)
Current co-executive secretaries: HHS's National Institutes of Health Director of the Office of Nutrition Research and USDA's Agricultural Research Services' Deputy Administrator for Nutrition, Food Safety, and Quality
Subcommittees: Dietary Guidance (active), Dietary Reference Intakes (active), Collaborative Process (Public-Private Partnerships) (inactive), Human Nutrition Research Database (inactive), Nutrition Research Roadmap (inactive)

Source: GAO analysis of Interagency Committee on Human Nutrition Research information. | GAO-24-106130

Text for Figure 5: Description of the Interagency Committee on Human Nutrition Research

Purpose: Improve planning, coordination, and communication among federal agencies engaged in research in nutrition or nutrition policies, surveillance, technologies, and related issues.

Established: 1983

Member agencies: U.S. Departments of Agriculture (USDA), Commerce, Defense, Health and Human Services (HHS), and Veterans Affairs; the Environmental Protection Agency; the National Aeronautics and Space Administration; the National Science Foundation; United States Agency for International Development; and the White House Office of Science and Technology Policy

Co-chairs: Assistant Secretary of Health (HHS) and Under Secretary for Research, Education, and Economics/Chief Scientist (USDA)

Current co-executive secretaries: HHS's National Institutes of Health Director of the Office of Nutrition Research and USDA's Agricultural Research Services' Deputy Administrator for Nutrition, Food Safety, and Quality

Subcommittees: Dietary Guidance (active), Dietary Reference Intakes (active), Collaborative Process (Public-Private Partnerships) (inactive),

Human Nutrition Research Database (inactive), Nutrition Research Roadmap (inactive)

Source: GAO analysis of Interagency Committee on Human Nutrition Research information. | GAO-24-106130

In 2019, the ICHNR had five working subcommittees, listed below.⁵⁵

- **Dietary Guidance.** This subcommittee was set up to gain perspectives from federal agencies regarding DGAC deliberations and to identify any research gaps or concerns that are important to federal programs. In addition, agencies may engage HHS and USDA officials through this subcommittee to discuss the DGA policy development process. The subcommittee is currently active and meets regularly throughout the DGA development process.
- **Dietary Reference Intakes.** This subcommittee and its workgroup, the Joint U.S.-Canada DRI Working Group, identify DRI study priorities.⁵⁶ HHS and USDA established a joint funding agreement to allocate funding to the National Academies to update various DRIs from fiscal year 2023 through fiscal year 2026. For example, in 2023, the DRI for Energy included five research recommendations, such as the need for research on methodologies to individualize energy requirements when providing certain nutrition care.⁵⁷ This subcommittee is currently active.
- **Collaborative Process (Public-Private Partnerships).** This subcommittee's goal was to bring together all nonfederal stakeholders that conduct human nutrition research to share and exchange ideas with federal stakeholders. The work of this subcommittee led to a public-private partnership that launched the USDA Global Branded Food Products Database, currently FoodData Central.⁵⁸ According to USDA officials, this subcommittee is no longer active, but the public-

⁵⁵According to HHS officials, the ICHNR was on hold for an extended period of time and reconvened in 2013.

⁵⁶DRIs are a set of scientifically developed reference values used to plan and assess specific nutrient intakes of healthy people. DRIs contain the most current scientific knowledge on nutrition needs of healthy populations. The DRIs are used to develop the DGA and other federal nutrition programs.

⁵⁷National Academies of Sciences, Engineering, and Medicine, *Dietary Reference Intakes for Energy (2023)*, The National Academies Press (Washington, D.C.: 2023).

⁵⁸U.S. Department of Agriculture, Agricultural Research Service, "FoodData Central," accessed on June 14, 2023, <https://fdc.nal.usda.gov/>. The goal of FoodData Central is to enhance the open sharing of nutrient data that appear on branded and private label foods.

private partnership continues to meet every other week and leads efforts to expand the FoodData Central databases.

- **Human Nutrition Research Database.** According to the ICHNR co-executive secretaries, the original goal of this subcommittee was to coordinate and collate all nutrition research and budgetary information about human nutrition research by the federal government. This subcommittee developed the Human Nutrition Research Information Management System for this purpose. However, according to the co-executive secretaries, the process used to update and maintain the database was tedious, time-consuming, and expensive and, as a result, the ICHNR no longer uses this database. This subcommittee is currently inactive.
- **Nutrition Research Roadmap.** The goal of this subcommittee was to develop a national nutrition research roadmap. In 2016, this subcommittee released a roadmap for 2016-2020 that identified key questions and topics related to nutrition research, as well as research gaps and opportunities.⁵⁹ The roadmap also identified topics of interest to ICHNR participating agencies and identified short- and long-term initiatives that the agencies could initiate to address the questions. However, according to the committee's co-executive secretaries, the subcommittee is currently inactive and met only a few times after publishing the roadmap.

HHS and USDA also participate in other interagency collaborative mechanisms that may help to inform the development of the DGA. For example, according to HHS officials, HHS and USDA participate in the Human Milk Composition Initiative—a U.S.-Canada collaboration with subject matter experts from HHS, USDA, and other federal and Canadian agencies—that collaborates to share information about human milk composition data availability for use by federal programs focused on maternal and child health. HHS and USDA also participate in the Federal Data Consortium on Pregnancy and Birth to 24 Months, a federal forum with subject matter experts from various agencies that assesses the need for data on maternal and child populations and assesses and gathers input on research plans, provides updates on data availability, and articulates issues that need to be addressed. In addition, HHS and USDA collaborate through the Older Individuals Collaborative on Nutrition, which

⁵⁹Interagency Committee on Human Nutrition Research, *National Nutrition Research Roadmap 2016-2021: Advancing Nutrition Research to Improve and Sustain Health* (Washington, D.C.: 2016).

is a network of nutrition experts and other health professionals across the federal government whose area of expertise includes older adults.⁶⁰ HHS officials stated that the work of some of these interagency groups inform the DGAC's scientific review and the DGA development process.

HHS and USDA Have Not Fully Incorporated Leading Collaboration Practices to Help Inform DGA-Related Research Activities

As discussed above, HHS and USDA use the ICHNR as a mechanism for interagency collaboration on human nutrition research in furtherance of, among other things, the development of the DGA.⁶¹ The ICHNR is charged with improving planning, coordination, and communication among federal agencies engaged in nutrition research and facilitating the development and updating of plans for federal research programs to meet current and future domestic and international needs for nutrition.

In our previous work, we identified eight leading practices for effective interagency collaboration:

- Define common outcomes.
- Ensure accountability.
- Bridge organizational cultures.
- Identify and sustain leadership.
- Clarify roles and responsibilities.
- Include relevant participants.
- Leverage resources and information.

⁶⁰HHS's Office of Disease Prevention and Health Promotion hosts the Older Individuals Collaborative on Nutrition through an interagency planning committee that includes other HHS agencies and USDA, according to HHS.

⁶¹The Secretaries of HHS and USDA shall coordinate the conduct of, and may contract with the suitable federal agencies for, scientific research and development as may be necessary or appropriate in support of the programs and plans in the act and in furtherance of the purposes and objectives of the act in general. The National Nutrition Monitoring and Related Research Act of 1990, Pub. L. No. 101-445, § 105 (codified at 7 U.S.C. § 5315).

- Develop and update written guidance and agreements.⁶²

We have found that these leading practices can help address crosscutting challenges in areas involving fragmentation, overlap, and duplication and help achieve meaningful results.⁶³ For example, meaningful results in DGA development could include complementary agency research plans that effectively target the research gaps identified through the 2020-2025 DGA development process and the human nutrition research required to support the development of future DGA editions. Of these eight leading practices, we found that the ICHNR co-leads from HHS and USDA have generally followed one leading practice (identifying and sustaining leadership) and have partially incorporated the remaining seven leading practices for interagency collaboration (see fig. 6).

⁶²[GAO-23-105520](#).

⁶³[GAO-15-49SP](#). GAO previously defined fragmentation, overlap, and duplication. Fragmentation refers to those circumstances in which more than one federal agency (or more than one organization within an agency) is involved in the same broad area of national need and opportunities exist to improve service delivery. Overlap occurs when multiple agencies or programs have similar goals, engage in similar activities or strategies to achieve them, or target similar beneficiaries. Duplication occurs when two or more agencies or programs are engaged in the same activities or provide the same services to the same beneficiaries.

Figure 6: Assessment of Interagency Committee on Human Nutrition Research (ICHNR) Efforts Compared with Leading Practices for Interagency Collaboration

Leading practices	Examples of key considerations	Our assessment of the ICHNR compared with leading collaboration practices
 Define common outcomes	<ul style="list-style-type: none"> Have short-term and long-term outcomes been clearly defined? Have the outcomes been reassessed and updated, as needed? Have the crosscutting challenges or opportunities been identified? 	
 Ensure accountability	<ul style="list-style-type: none"> What are the ways to monitor, assess, and communicate progress toward the short-term and long-term outcomes? 	
 Bridge organizational cultures	<ul style="list-style-type: none"> Have participating agencies established compatible policies, procedures, and other means to operate across agency boundaries? Have participating agencies agreed on common terminology and definitions? 	
 Identify and sustain leadership	<ul style="list-style-type: none"> Has a lead agency or individual been identified? If leadership will be shared between one or more agencies, have roles and responsibilities been clearly identified and agreed upon? How will leadership be sustained over the long term? 	
 Clarify roles and responsibilities	<ul style="list-style-type: none"> Have the roles and responsibilities of the participants been clarified? Has a process for making decisions been agreed upon? 	
 Include relevant participants	<ul style="list-style-type: none"> Have all relevant participants been included? Do the participants have the appropriate knowledge, skills, and abilities to contribute? Do participants represent diverse perspectives and expertise? 	
 Leverage resources and information	<ul style="list-style-type: none"> How will the collaboration be resourced through staffing? How will the collaboration be resourced through funding? If interagency funding is needed, is it permitted? Are methods, tools, or technologies to share relevant data and information being used? 	
 Develop and update written guidance and agreements	<ul style="list-style-type: none"> If appropriate, have agreements regarding the collaboration been documented? Have ways to continually update or monitor written agreements been developed? 	

-  Generally incorporated
-  Partially incorporated
-  Did not follow

Sources: GAO-23-105520 and GAO analysis of Interagency Committee on Human Nutrition Research interviews and information; Vector (icons). | GAO-24-106130

Text for Figure 6: Assessment of Interagency Committee on Human Nutrition Research (ICHNR) Efforts Compared with Leading Practices for Interagency Collaboration

Leading practices	Examples of key considerations	Our assessment of the ICHNR compared with leading collaboration practices
Define common outcomes	<ul style="list-style-type: none"> Have short-term and long-term outcomes been clearly defined? Have the outcomes been reassessed and updated, as needed? Have the crosscutting challenges or opportunities been identified? 	Partially incorporated
Ensure accountability	<ul style="list-style-type: none"> What are the ways to monitor, assess, and communicate progress toward the short-term and long-term outcomes? 	Partially incorporated
Bridge organizational cultures	<ul style="list-style-type: none"> Have participating agencies established compatible policies, procedures, and other means to operate across agency boundaries? Have participating agencies agreed on common terminology and definitions? 	Partially incorporated
Identify and sustain leadership	<ul style="list-style-type: none"> Has a lead agency or individual been identified? If leadership will be shared between one or more agencies, have roles and responsibilities been clearly identified and agreed upon? How will leadership be sustained over the long term? 	Generally incorporated
Clarify roles and responsibilities	<ul style="list-style-type: none"> Have the roles and responsibilities of the participants been clarified? Has a process for making decisions been agreed upon? 	Partially incorporated
Include relevant participants	<ul style="list-style-type: none"> Have all relevant participants been included? Do the participants have the appropriate knowledge, skills, and abilities to contribute? Do participants represent diverse perspectives and expertise? 	Partially incorporated
Leverage resources and information	<ul style="list-style-type: none"> How will the collaboration be resourced through staffing? How will the collaboration be resourced through funding? If interagency funding is needed, is it permitted? Are methods, tools, or technologies to share relevant data and information being used? 	Partially incorporated
Develop and update written guidance and agreements	<ul style="list-style-type: none"> If appropriate, have agreements regarding the collaboration been documented? Have ways to continually update or monitor written agreements been developed? 	Partially incorporated

Sources: GAO-23-105520 and GAO analysis of Interagency Committee on Human Nutrition Research interviews and information; Vector (icons). | GAO-24-106130

Note: GAO’s eight leading practices for interagency collaboration each contain several key considerations against which GAO may evaluate collaboration efforts within and across government agencies. Not all key considerations apply in all situations. For this report, we assessed ICHNR activities against the key considerations relevant to improving how agencies collaborate to identify and prioritize human nutrition research and address research gaps, and we excluded others.

HHS and USDA, as co-leads of the ICHNR, generally followed one leading practice—identifying and sustaining leadership—based on our analysis of ICHNR documentation. Specifically, the ICHNR charter specifies that the co-chairs of ICHNR from HHS and USDA will be the Assistant Secretary for Health and the Assistant Secretary for Science and Education, respectively, or their designees. Currently, the HHS Assistant Secretary for Health and the USDA Chief Scientist are the co-

chairs. Both of these positions are appointed by the President and confirmed by the Senate.⁶⁴ The ICHNR also has co-executive secretaries, currently NIH's Director of the Office of Nutrition Research and USDA's Agricultural Research Service's Deputy Administrator for Nutrition, Food Safety, and Quality. According to ICHNR officials, the co-chairs and their co-executive secretaries jointly identify agendas and topics of discussion for ICHNR meetings. They also work together to identify areas of research translation and implementation that are of joint interest to multiple departments and agencies.

However, the ICHNR co-chairs have only partially incorporated the seven remaining leading collaboration practices.

Defining common outcomes. The ICHNR has taken various steps to define common outcomes, but the committee has not taken steps to reduce the risk of overlapping or duplicative research activities. For example, the ICHNR developed a research roadmap that identified research gaps, challenges, and opportunities and some short- and long-term initiatives that agencies could implement, but it has not been updated since 2016, and the ICHNR has not monitored progress toward the desired outcomes.

According to ICHNR co-chairs, the ICHNR replaced the roadmap with the 2022 Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health, to inform federal nutrition research priorities.⁶⁵ This national strategy established high-level goals related to nutrition research but,

⁶⁴[GAO-23-105520](#). We have noted in prior work that leadership can be strengthened by a direct relationship with the President, Congress, and other high-level officials and that when a leader is associated with the President, Members of Congress, or other high-level officials, they were better able to influence individuals and organizations within the federal government to collaborate with one another. In addition, by sharing leadership, agencies can create buy-in and convey support for the collaborative effort.

⁶⁵The national strategy set a goal of ending hunger in American and increasing healthy eating and physical activity by 2030 so that fewer Americans experience diet-related diseases.

according to the ICHNR co-chairs, better coordination is needed to determine where the strategy complements agency strategic plans.⁶⁶

According to the ICHNR co-chairs, committee members have proposed developing an outline to identify areas in the national strategy that are best suited for collaboration, but it has not yet developed such an outline. As a result, the ICHNR currently does not have assurance that the desired outcomes established in the national strategy are reflected in relevant agencies' research plans. Furthermore, without any mechanism to track whether participating agencies have plans for addressing specific research and data gaps, the agencies risk conducting unintentionally overlapping or duplicative nutrition research.

Ensuring accountability. The ICHNR's Human Nutrition Research Database Subcommittee created the Human Nutrition Research Information Management System to coordinate and collate all nutrition research and budgetary information about human nutrition research by the federal government. However, the subcommittee ceased maintaining it due to resource limitations, and the subcommittee itself is no longer active. As a result, the agencies are not able to determine whether the research these agencies conduct internally or fund are potentially overlapping or duplicative.⁶⁷ According to ICHNR officials, the committee instead relies on information collected in agency-level databases to track federal nutrition research. However, some agencies, such as the National

⁶⁶According to USDA officials, the administration will increase collaboration across nutrition science and research priorities to identify the research and data needs that are most likely to make a meaningful impact on food security and nutrition. In addition, working with external scientific experts, the ICHNR, the White House Office of Science and Technology Policy, and the President's Council of Advisors on Science & Technology will identify scientific opportunities, gaps, and priorities to continue to advance nutrition science, with a particular emphasis on ensuring equitable access to the benefits of research.

⁶⁷According to HHS and USDA officials, the agencies have not established a mechanism for determining which research projects to fund that are tied to addressing DGA-related research gaps. In addition, NIH generally provides funding for investigator-driven research. According to agency officials, as a result, the agencies do not have a way to ensure that the research they fund will assist them in addressing human nutrition research priorities related to the development of the DGA. Furthermore, the agencies told us they do not track their research projects based on whether they are DGA-related. As a result, the agencies are not in a position to determine whether the research they conduct or fund is potentially overlapping or duplicative. However, according to HHS officials, overlapping biomedical research efforts can be beneficial for building a reproducible and reliable evidence base.

Aeronautics and Space Administration and DOD, do not track their human nutrition research information.⁶⁸

As a result, the ICHNR does not currently have any central database in place to track human nutrition research across the federal government. The ICHNR co-executive secretaries would like to expand on NIH's Research Portfolio Online Reporting Tools Expenditures and Results database and develop a way to automate the data collection process, as well as develop a standard way of coding this information so that it is consistent across the federal government for different types of human nutrition research. However, according to ICHNR officials, creating such a database would require additional resources, such as funding and staff. Without a central database to track and monitor federal nutrition research, the ICHNR does not have any mechanisms in place to ensure accountability for making progress toward addressing research priorities and gaps identified in agency research plans and strategies, the 2020 DGAC Scientific Report, or the initiatives and calls for action articulated in the national strategy.

Bridging organizational cultures. The ICHNR's research roadmap identified 17 established federal human nutrition research collaborations to advance federal human nutrition research, indicating many existing interagency relationships, but the committee has met infrequently, and inconsistent terminology hampers data-sharing efforts. For example, the ICHNR co-chairs for the Subcommittee on Dietary Guidance work closely together to develop the DGA, according to HHS and USDA officials, but the full ICHNR met only once a year in 2019, 2021, and 2023, and twice in 2022 and did not meet in 2020 due to the COVID pandemic.

In addition, participating ICHNR agencies have agreed on the definition of human nutrition research but, according to the ICHNR co-executive secretaries, they have not agreed on definitions for other terms needed to establish a searchable nutrition research database. According to the co-chairs, the ICHNR does not have the staffing resources to devote to developing common terminology. However, the Human Nutrition

⁶⁸For example, HHS uses its NIH Research Portfolio Online Reporting Tools website as a repository of NIH-funded research projects and to provide access to publications and patents resulting from NIH funding. In addition, USDA uses its Current Research Information System to document ongoing agricultural, food science, human nutrition, and forestry research, education, and extension activities. USDA also publishes annual project reports to provide progress reports and accomplishments for its active projects.

Research Subcommittee was established to focus on this issue and, as we noted above, this subcommittee is currently inactive.⁶⁹ Without common terminology and definitions, it will be difficult to facilitate automated data collection or to create a central, searchable database.

Clarifying roles and responsibilities. Various federal agencies that participate in the ICHNR have developed plans that clarify their roles and responsibilities related to human nutrition research. For example, NIH developed a 2020-2030 strategic plan for its nutrition research, USDA's National Institute of Food and Agriculture Strategic Plan identified nutrition research, its Agricultural Research Service developed 5-year action plans for its nutrition research, and DOD developed a strategic plan to coordinate its own nutrition research.⁷⁰ However, the ICHNR has not ensured that these agencies' plans are complementary. For example, the ICHNR does not ensure that agencies are conducting specific research that could inform the development of future DGA editions and address known research gaps.⁷¹

The ICHNR serves as a forum for discussing the participating agencies' research activities and priorities, but its published guidance has been superseded by a national strategy. Its research roadmap was intended to help inform participating departments and agencies as they developed specific goals, objectives, strategies, and budget priorities and identified their unique and collaborative roles and responsibilities, as well as required resources and time frames to accomplish those research goals. According to the ICHNR co-chairs, the current administration's national strategy, which identifies nutrition research priorities, has replaced the ICHNR roadmap. The ICHNR does not currently have any mechanism to

⁶⁹According to an ICHNR document, the Human Nutrition Research Database was established to fill a need to provide a nutrition research funding website that allows the public to track scientific and budgetary information on human nutrition research activities across federal agencies. According to this document, each agency uses different search terms and may or may not have public facing websites, which makes it difficult to address potential funding redundancies among agencies that have overlapping research objectives in nutrition.

⁷⁰Department of Defense, U.S. Army Medical Research and Development Command, *Research and Development Strategic Plan – Volume 1: Strategic Approach for Medical Nutrition* (Feb. 26, 2020).

⁷¹According to HHS officials, the ICHNR does not have the authority to stipulate that any agency should fund any specific research conducted through the competitive grant system.

ensure that the research that agencies conduct is complementary and addresses the priorities identified in the national strategy.

The co-chairs described a need for an empowered subcommittee that can foster coordination where needed across agencies and departments, identify where individual agency strategic plans are complementary, and that may create opportunities for further collaboration. Clarifying roles and responsibilities by, for example, empowering a subcommittee to coordinate across agency strategic plans would further ensure that interagency research efforts are complementary and lower the risk of overlap and duplication.

Including relevant participants. The ICHNR charter mandates leadership positions, including co-chairs, but other membership is voluntary and by invitation only. For example, the ICHNR charter states that the committee will include two representatives each from HHS and USDA and that the co-chairs will invite all participating agencies to appoint one representative to the ICHNR. Agencies can also have alternate representatives. Agency participation is voluntary and on an invitation-only basis. The ICHNR staffs subcommittees with volunteers from its membership.

The ICHNR has been able to carry out some of the goals of its subcommittees, but the voluntary nature of participation and invitation-based membership has meant that the committee often does not have enough volunteers to staff existing and new subcommittees and sustain the work of the committee over time, according to HHS and USDA officials. The ICHNR charter has not been updated since the release of the research roadmap. However, the committee has identified new activities that could help to support the development of the DGA. Without increasing participation in ICHNR activities, the committee may be unable to conduct important activities. Including relevant participants by, for example, amending the ICHNR charter to increase agency participation, could assist the committee in expanding and expediting progress on initiatives.

Leveraging resources and information. According to the ICHNR co-executive secretaries, the ICHNR has no dedicated funding or staffing resources, but HHS and USDA have provided funding to address certain research priorities. For example, HHS and USDA approved a Joint Funding Agreement that provides funding to the National Academies in fiscal year 2023 to update specific DRIs prioritized by the DRI Subcommittee. However, according to ICHNR officials, additional

resources are required to research and update DRIs for other nutrients. Despite not having dedicated funding, as previously noted, the ICHNR's work, under its Collaborative Process Subcommittee, launched the USDA Global Branded Food Products Database, currently FoodData Central. Similarly, the ICHNR roadmap informed NIH's strategic nutrition research plan.

However, according to the co-executive secretaries, the lack of dedicated funding to support hiring of dedicated support staff or other ICHNR activities has meant that the committee has been unable to conduct certain activities that could help them to collaborate more effectively to identify and prioritize nutrition research. These activities include developing common terminology and definitions to facilitate reporting on federal research and related activities; developing and maintaining a central, searchable database of relevant federal research; as well as funding research priorities, such as additional DRI studies.⁷²

We found in our prior work that agencies generally do not receive dedicated funding or staff for interagency groups.⁷³ Our prior work noted that to manage and leverage their limited resources, two of the interagency groups surveyed developed a detailed inventory of programs and authorities that related to the outcomes of the interagency group. They developed the inventory, according to interagency group officials, to help the group better understand the full range of federal programs and resources devoted to government-wide outcomes or initiatives. An inventory of relevant resources can also be used to identify the range of federal spending on an issue, which can result in more coordinated spending.⁷⁴

⁷²For example, as discussed above, the ICHNR co-chairs stated their interest in developing an outline to identify areas in the national strategy that are best suited for collaboration, but the ICHNR is unable to do this because they do not have dedicated staff or funding to support such work. In addition, the ICHNR has not developed online collaboration tools, which limits their ability to share relevant data and information. Furthermore, the co-executive secretaries cited a lack of resources as a barrier to reestablishing ICHNR subcommittees that are currently inactive and enabling those subcommittees to conduct related activities, such as agreeing to common terminology to enable the creation of a central research database.

⁷³GAO, *Managing for Results: Implementation Approaches Used to Enhance Collaboration in Interagency Groups*, [GAO-14-220](#) (Washington, D.C.: February 2014).

⁷⁴GAO, *Federal Programs: Approaches to Help Create a Useful Inventory*, [GAO-23-106272](#) (Washington, D.C.: Jan. 24, 2023).

According to HHS and USDA officials, the ICHNR has not developed a detailed inventory of programs and funding to identify potential resources for the ICHNR committee's efforts. As a result, it is difficult to determine the full scope of federal resources and activities in the nutrition research field. According to HHS and USDA officials, the ICHNR could conduct such an inventory as part of a federal human nutrition research database, but it would require additional actions, such as identifying a location for housing the database.

Leveraging resources and information by, for example, developing a detailed inventory of federal programs and funding for human nutrition research-related activities could help the committee leverage their limited resources and avoid overlapping or duplicative efforts. We previously found that an interagency group created an inventory by developing a spreadsheet that listed relevant funding streams and resources. This could be a cost-effective strategy for interagency bodies without significant resources to conduct an inventory. Furthermore, this could serve as a short-term mechanism to track and monitor research before a central database of all federal human nutrition research and related activities can be developed.

We also found in our prior work that interagency groups benefit from leveraging existing activities, tools, or programs. For example, HHS compiles a significant amount of nutrition research in NIH's Research Portfolio Online Reporting Tools Expenditures and Results database. According to the ICHNR co-executive secretaries, the committee has discussed expanding on NIH's database to serve as the central database on human nutrition research. This approach could help better leverage existing resources and be a long-term solution for the tracking and monitoring of federally funded nutrition research.⁷⁵

Developing and updating written guidance and agreements. The ICHNR developed a written agreement governing ICHNR activities, including the ICHNR charter, but has not updated its guidance regarding its subcommittees and related activities. Specifically, the ICHNR charter from 1983 stipulates how the agencies could collaborate and states that the ICHNR may establish task forces or working groups as needed to

⁷⁵The committee could pilot test the expansion of the Research Portfolio Online Reporting Tools Expenditures and Results database before full-scale adoption. In our prior work, we found value in pilot-testing selected ideas, programs, or policies before investing more extensive resources into implementation. Through pilot testing, interagency groups were able to allow time to identify unanticipated consequences or implementation challenges, and to gather information on program effectiveness. See [GAO-14-220](#).

conduct required ICHNR work. However, according to an ICHNR document, as of 2019, there were five subcommittees, but three of them are no longer active for various reasons, such as not having a volunteer willing to chair a subcommittee.

The co-executive secretaries told us they discussed reestablishing the ICHNR Subcommittees on Collaborative Process and Human Nutrition Research Database, identifying agency leads to volunteer for key activities, and investigating opportunities to allocate resources for these efforts. According to the co-chairs, as new priorities have emerged, the ICHNR has discussed which subcommittees should be established to foster collaboration on contemporary areas of interest. For example, in June 2023, USDA officials told us that the ICHNR approved the establishment of a new subcommittee on nutrition security.⁷⁶ In addition, according to USDA officials, the ICHNR plans on adding another subcommittee focused on global nutrition.

However, without an updated charter, the ICHNR may be unable to ensure it has the subcommittee structure and staff resources needed to address the most important issues facing nutrition research that could inform the development of future DGA editions. As previously stated, the committee could update its charter, for example, to allow for expanded participation or membership to ease staffing constraints.

By fully incorporating these seven leading practices for interagency collaboration, HHS and USDA may be better able to identify and prioritize nutrition research to inform the development of the DGA through the ICHNR. HHS and USDA also would have better assurance that the DGAC will have sufficient evidence to review to allow it to effectively draw conclusions and make recommendations to respond to the proposed scientific questions it is asked to address. Doing so could then enable future editions of the DGA to provide guidance and data on key topics for which there was not sufficient evidence to draw conclusions in the past, such as lactation and infant developmental outcomes. In addition, by leveraging existing resources, HHS and USDA could have greater assurances that the ICHNR will be able to enhance the effectiveness of interagency collaboration. For example, the ICHNR may be able to develop a system for reporting on nutrition research activities across the

⁷⁶The purpose of this subcommittee is to gather from agencies and departments their operational definitions of nutrition security and their current measures to evaluate the status of their nutrition security research and to understand aspects of inequity and underserved populations.

federal government and increase the overall effectiveness and productivity of research efforts in nutrition.

Conclusions

According to the latest federal data available, chronic health conditions linked to diet, such as cardiovascular disease, cancer, diabetes, and obesity, are widespread and the cause of premature deaths and unsustainable health care costs for the nation. Using current scientific and medical knowledge, the DGA were developed to provide science-based advice on what to eat and drink to promote health, reduce risk of chronic disease, and meet nutrient needs.

HHS and USDA collaborate on human nutrition research through the ICHNR and serve as its co-chairs. The ICHNR has been successful in many respects, such as serving as a forum for sharing agency research priorities and coordinating DRI research. However, HHS and USDA have not fully incorporated most leading practices for enhancing interagency collaboration, including ensuring accountability. This is, in part, according to officials, because the ICHNR lacks direct funding for key activities, such as completing additional DRI studies, updating older DRI studies, and creating a tool to track federal human nutrition research. We have found previously that when an interagency mechanism does not receive dedicated funds, agencies can take actions to overcome this limitation, such as leveraging existing resources and conducting an inventory of existing authorities, activities, and appropriations to help focus federal spending.

Strengthening existing collaboration mechanisms could provide valuable benefits to the DGA development process. For example, by fully incorporating the leading practices for interagency collaboration into the ICHNR, HHS and USDA may be better able to inform and prioritize federal human nutrition research, including research that could support the development of future editions of the DGA. Furthermore, by taking additional actions to improve interagency collaboration, such as by ensuring accountability and clarifying roles and responsibilities, HHS and USDA could better assure that the DGAC will have the evidence it needs to draw conclusions and make recommendations that could be used to guide the development of future DGA editions. Finally, fully incorporating the leading practices, such as defining common outcomes, could help ICHNR leadership better manage the fragmented federal nutrition

research activities and reduce the risk of unintentionally overlapping or duplicative efforts.

Recommendations for Executive Action

We are making the following two recommendations:

The Secretary of Health and Human Services should ensure that the Assistant Secretary of Health—as co-chair of the Interagency Committee on Human Nutrition Research—fully incorporates seven leading interagency collaboration practices in order to better inform and prioritize DGA-related nutrition research. Actions to incorporate these practices could include ensuring that agency research plans are complementary and reflect the current desired outcomes and conducting an inventory of federal authorities, activities, and appropriations related to nutrition research that could inform the DGA development process.
(Recommendation 1)

The Secretary of Agriculture should ensure that the Under Secretary for Research, Education, and Economics—as co-chair of the Interagency Committee on Human Nutrition Research—fully incorporates seven leading interagency collaboration practices in order to better inform and prioritize DGA-related nutrition research. Actions to incorporate these practices could include ensuring that agency research plans are complementary and reflect the current desired outcomes and conducting an inventory of federal authorities, activities, and appropriations related to nutrition research that could inform the DGA development process.
(Recommendation 2)

Agencies Comments

We provided a draft of this report to DOD, HHS, USDA, and VA for review and comment. HHS and USDA provided written comments that are reprinted in appendixes IV and V, respectively. HHS generally agreed with our findings and concurred with our recommendation. USDA generally agreed with our findings, but it neither agreed nor disagreed with our recommendation. In addition, HHS, USDA, and VA provided technical comments, which we incorporated, as appropriate. DOD did not have any comments on this report.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees, the Secretary of Defense, the Secretary of Health and Human Services, the Secretary of Agriculture, the Secretary of Veterans Affairs, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or morriss@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VI.

A handwritten signature in black ink that reads "Steve D. Morris". The signature is written in a cursive, slightly slanted style.

Steve D. Morris
Director, Natural Resources and Environment

Appendix I: Objectives, Scope, and Methodology

Our objectives were to (1) describe how selected federal agencies promote the 2020-2025 Dietary Guidelines for Americans (DGA) and (2) examine the Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA) efforts to collaborate to identify and prioritize research that may inform future editions of the DGA. We also provide information in appendix II on factors that may limit the extent to which individuals follow the DGA.

To describe how selected federal agencies promote the 2020-2025 DGA, we reviewed federal laws and guidance to identify relevant statutory requirements. We also reviewed documentation from selected agencies about federal nutrition programs to identify how they promote the DGA. We interviewed knowledgeable officials from the Departments of Agriculture, Defense (DOD), Health and Human Services, and Veterans Affairs (VA) about their efforts to promote the current DGA. We selected these four federal agencies based on their participation in the Interagency Committee on Human Nutrition Committee (ICHNR) and their activities to promote nutrition.

To examine HHS and USDA efforts to collaborate to identify and prioritize research that could be used to inform future editions of the DGA, we reviewed agency documentation, such as ICHNR's National Nutrition Research Roadmap 2016-2021 and the 2020-2030 Strategic Plan for National Institutes of Health (NIH) Nutrition Research. We also interviewed knowledgeable officials from HHS and USDA and representatives of the National Academies of Science, Engineering, and Medicine (National Academies), which has reviewed the available evidence and updated the current Dietary Reference Intakes (DRI) for certain nutrients, including sodium and potassium, at the request of, and funded by, HHS and USDA.¹ In addition, we compared HHS and USDA's

¹National Academies of Science, Engineering, and Medicine, *Dietary Reference Intakes for Sodium and Potassium. A Consensus Study Report of the National Academies of Sciences, Engineering, and Medicine* (Washington, D.C.: 2019). In 2022, USDA also asked the National Academies to convene a Standing Committee to review the DRI framework, including the structure and process that will guide future DRI reviews, and respond to questions posed by the DRI working group.

collaboration efforts to inform priorities for human nutrition research through the ICHNR with leading practices in interagency collaboration, identified in prior work.² We assessed the extent to which the ICHNR co-leads incorporated these leading practices. See figure 7 for these leading practices and the related key considerations.

²GAO, *Government Performance Management: Leading Practices to Enhance Interagency Collaboration and Address Crosscutting Challenges*, [GAO-23-105520](#) (Washington, D.C.: May 24, 2023).

Appendix I: Objectives, Scope, and Methodology

Figure 7: Leading Interagency Collaboration Practices Identified in Prior Work

Leading collaboration practices	Key considerations
 Define common outcomes	<ul style="list-style-type: none"> • Have the crosscutting challenges or opportunities been identified? • Have short- and long-term outcomes been clearly defined? • Have the outcomes been reassessed and updated, as needed?
 Ensure accountability	<ul style="list-style-type: none"> • What are the ways to monitor, assess, and communicate progress toward the short- and long-term outcomes? • Have collaboration-related competencies or performance standards been established against which individual performance can be evaluated? • Have the means to recognize and reward accomplishments related to collaboration been established?
 Bridge organizational cultures	<ul style="list-style-type: none"> • Have strategies to build trust among participants been developed? • Have participating agencies established compatible policies, procedures, and other means to operate across agency boundaries? • Have participating agencies agreed on common terminology and definitions?
 Identify and sustain leadership	<ul style="list-style-type: none"> • Has a lead agency or individual been identified? • If leadership will be shared between one or more agencies, have roles and responsibilities been clearly identified and agreed upon? • How will leadership be sustained over the long term?
 Clarify roles and responsibilities	<ul style="list-style-type: none"> • Have the roles and responsibilities of the participants been clarified? • Has a process for making decisions been agreed upon?
 Include relevant participants	<ul style="list-style-type: none"> • Have all relevant participants been included? • Do the participants have the appropriate knowledge, skills, and abilities to contribute? • Do participants represent diverse perspectives and expertise?
 Leverage resources and information	<ul style="list-style-type: none"> • How will the collaboration be resourced through staffing? • How will the collaboration be resourced through funding? If interagency funding is needed, is it permitted? • Are methods, tools, or technologies to share relevant data and information being used?
 Develop and update written guidance and agreements	<ul style="list-style-type: none"> • If appropriate, have agreements regarding the collaboration been documented? <ul style="list-style-type: none"> ◦ A written document can incorporate agreements reached for any or all of the practices. • Have ways to continually update or monitor written agreements been developed?

Sources: GAO information; Vector (icons). | GAO-24-106130

Text for Figure 7: Leading Interagency Collaboration Practices Identified in Prior Work

Leading collaboration practices	Key considerations
Define common outcomes	<ul style="list-style-type: none"> Have the crosscutting challenges or opportunities been identified? Have short- and long-term outcomes been clearly defined? Have the outcomes been reassessed and updated, as needed?
Ensure accountability	<ul style="list-style-type: none"> What are the ways to monitor, assess, and communicate progress toward the short- and long-term outcomes? Have collaboration-related competencies or performance standards been established against which individual performance can be evaluated? Have the means to recognize and reward accomplishments related to collaboration been established?
Bridge organizational cultures	<ul style="list-style-type: none"> Have strategies to build trust among participants been developed? Have participating agencies established compatible policies, procedures, and other means to operate across agency boundaries? Have participating agencies agreed on common terminology and definitions?
Identify and sustain leadership	<ul style="list-style-type: none"> Has a lead agency or individual been identified? If leadership will be shared between one or more agencies, have roles and responsibilities been clearly identified and agreed upon? How will leadership be sustained over the long term?
Clarify roles and responsibilities	<ul style="list-style-type: none"> Have the roles and responsibilities of the participants been clarified? Has a process for making decisions been agreed upon?
Include relevant participants	<ul style="list-style-type: none"> Have all relevant participants been included? Do the participants have the appropriate knowledge, skills, and abilities to contribute? Do participants represent diverse perspectives and expertise?
Leverage resources and information	<ul style="list-style-type: none"> How will the collaboration be resourced through staffing? How will the collaboration be resourced through funding? If interagency funding is needed, is it permitted? Are methods, tools, or technologies to share relevant data and information being used?
Develop and update written guidance and agreements	<ul style="list-style-type: none"> If appropriate, have agreements regarding the collaboration been documented? (A written document can incorporate agreements reached for any or all of the practices.) Have ways to continually update or monitor written agreements been developed?

Sources: GAO information; Vector (icons). | GAO-24-106130

To describe factors that may limit the extent to which individuals follow the 2020-2025 DGA, we reviewed relevant agency documents and interviewed agency officials and selected stakeholders. We interviewed agency officials from DOD, HHS, USDA, and VA, selected based on their activities to promote nutrition. Based on our prior work in diet-related chronic illnesses and by reviewing federal activities to promote the DGA, we selected five nonfederal stakeholders to interview. During these interviews, we obtained recommendations for additional stakeholders and selected seven to interview. In total, we selected 12 nonfederal stakeholders based on their knowledge and expertise with the DGA. We interviewed 10 nonfederal stakeholders, including four experts who

conduct DGA-related research in academic institutions and representatives of six selected organizations, including the American Heart Association, Academy of Nutrition and Dietetics, Association of State Public Health Nutritionists, National Academies, School Nutrition Association, and the Union of Concerned Scientists. We conducted semistructured interviews with these four federal agencies and 10 of the selected nonfederal stakeholders to obtain information about the factors that may limit the extent to which individuals follow the DGA.

To corroborate testimonial evidence and provide contextual sophistication regarding factors that may limit the extent to which consumers follow the DGA, we reviewed agency reports related to the DGA, such as the 2022 Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health. We also reviewed reports produced by nonfederal stakeholders, such as academic reviews of the DGA. In addition, we conducted a literature search and review of selected articles related to the DGA. For our literature review, we limited our searches for articles published from January 2013 through January 2023 to capture the most available articles at the time our search was conducted.

We performed searches in ProQuest—a multidisciplinary database that includes social sciences peer-reviewed studies, Trade and Think Tank publications—Dialog Food and Agriculture Databases, Scopus, Ebsco, and the Harvard Kennedy Think Tank search engine. We searched for “Dietary Guidelines for Americans” or “dietary guidelines” or “dietary recommendations,” with permutations of terms such as “challenges,” “barriers,” or “limitations.” From this search, we selected and reviewed 18 academic articles, publications, and reports that identified factors that may limit whether consumers follow the DGA.

We analyzed stakeholder views to identify specific factors that may limit the extent to which consumers follow the DGA. Based on these interviews and our review of documentation, we developed a list of factors. Drawing upon contextual information about the factors we gathered in the documentary sources, such as federal reports and selected published literature, we grouped similar items from this list into broader themes for reporting purposes. We asked selected stakeholders to review our thematic groupings and made changes to these groups, as appropriate, based on their feedback. Our final list included five crosscutting factors that may limit the extent to which consumers follow the DGA. The views of these nonfederal stakeholders are not generalizable to all nonfederal stakeholders. However, stakeholder selection includes a wide range of

areas of expertise and viewpoints, and we sought to capture that range in our findings.

We conducted this performance audit from July 2022 to October 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Factors That May Limit Consumer Adherence to the Dietary Guidelines for Americans

Through an analysis of stakeholder views and documentation, including selected published literature, we identified five crosscutting factors that may limit the extent to which consumers follow the Dietary Guidelines for Americans (see table 1).

Table 1: Factors That May Limit the Extent to Which Consumers Follow the Dietary Guidelines for Americans (DGA)

Factors	Examples
Barriers affecting individual human behavior	Lack of motivation or readiness to change and competing priorities to healthy eating
	Individual tastes and preferences
	Convenience and time barriers
	Lack of knowledge and resources for healthy food preparation, storage, and meal planning (e.g., culinary skills)
Limited equity and affordability of healthy food options	Food and nutrition insecurity
	Economic barriers (i.e., cost and affordability)
	Lack of direct access for Tribal nations to U.S. Department of Agriculture programs (i.e., tribal self-determination in federal nutrition assistance programs)
	Social determinants of health related to equity, including racial, cultural, and socioeconomic factors
Limited accessibility and availability of healthy food options	Food deserts and geographic access barriers, such as lack of transportation options and distance to retailers
	Insufficient production of healthy foods to meet recommendations
	Overabundance of unhealthy foods
	Structural or supply chain barriers to exercising tribal food sovereignty
	Lack of institutional access to healthy foods (e.g., private schools, hospitals, worksites)
Unclear, conflicting, or difficult-to-follow nutrition advice	Lack of faith, confidence, and trust in government, health professionals, and the DGA as a source of information
	Conflicting information from, for example, marketing by food companies that distorts messaging and multiple competing sources of information from outside the federal government
	Lack of knowledge and skills for identifying reliable sources of nutrition information
	Low knowledge and awareness of federal nutrition guidance for consumers (i.e., low MyPlate awareness), in part because DGA messaging is primarily directed to medical professionals rather than consumers and due to limited budgets for federal nutrition education campaigns
	Lack of knowledge and skills for interpreting nutritional labels
	Limited nutritional knowledge among health care professionals and barriers to working with patients

Appendix II: Factors That May Limit Consumer Adherence to the Dietary Guidelines for Americans

Factors	Examples
Limited applicability of the DGA to specific segments of the population	<p>Military personnel may have specialized training or operational readiness requirements that differ from DGA recommendations</p> <hr/> <p>The DGA are not intended as clinical guidelines for treating individuals with chronic illnesses or Restrictive Eating Disorders</p> <hr/> <p>The DGA do not provide tailored guidance for certain groups (i.e., advanced geriatric patients, consumers wishing to support sustainability through diet, tribal and ethnic groups, vegans and dairy-free vegetarians)</p>

Sources: GAO analysis of agency and stakeholder documentation, interviews with agency officials and representatives of selected stakeholder organizations, and analysis of literature review. | GAO-24-106130

Appendix III: Diet, Chronic Health Conditions, and Food Security

Dietary patterns can affect the risk of several chronic health conditions. For example, according to the 2020-2025 DGA, common characteristics of dietary patterns associated with positive health outcomes include higher intake of vegetables, fruits, legumes, whole grains, low- or non-fat dairy, lean meat and poultry, seafood, nuts, and unsaturated vegetable oils, and low consumption of red and processed meats, sugar-sweetened foods and drinks, and refined grains. In addition, food insecurity is associated with negative health outcomes.

Department of Health and Human Services (HHS) data show widespread public health risks related to diet. For example, HHS data from 2019 to 2021 show that 19 states have an obesity prevalence at or above 35 percent, more than double the number of states as recently as 2018.¹ Furthermore, recent HHS data show that more than one in 10 Americans had diabetes in 2019;² one in three Americans will have cancer in their lifetime;³ and, in 2017-2018, more than four in 10 Americans had hypertension (high blood pressure), which is linked to the leading causes of death for Americans, heart disease and stroke.⁴ In 2021, we reported that government spending to treat cardiovascular disease, cancer, and

¹U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, “Number of States with High Rates of Adult Obesity More Than Doubles” (Atlanta, GA: Sept. 27, 2022), accessed on June 23, 2023), <https://www.cdc.gov/media/releases/2022/p0927-states-obesity.html>.

²U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. “Prevalence of Both Diagnosed and Undiagnosed Diabetes” (Atlanta, GA: September 2022), accessed on June 23, 2023, <https://www.cdc.gov/diabetes/data/statistics-report/diagnosed-undiagnosed-diabetes.html>. According to HHS data, 37.3 million people of all ages, or 11.3 percent of the U.S. population, had diabetes in 2019.

³U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, “Cancer” (Atlanta, GA: June 7, 2022), accessed on June 23, 2023, <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/cancer.htm>.

⁴U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, *Hypertension Prevalence Among Adults Aged 18 and Over: United States, 2017–2018*, National Center for Health Statistics Data Brief, No. 364 (Atlanta, GA: April 2020).

diabetes accounted for 54 percent of the \$383.6 billion in health care spending to treat these conditions.⁵

The U.S. Department of Agriculture (USDA) monitors the food security status of U.S. households as part of its responsibility for administering most of the federal government's food and nutrition assistance programs. Many of these programs are intended to alleviate food insecurity and prevent the physical and psychological outcomes—such as low birth weights, chronic illnesses, and anxiety—associated with being undernourished.⁶ USDA reports that over 10 percent (13.5 million) of U.S. households were food insecure at some time during 2021, meaning that at some time or times during the year, they were uncertain of having or unable to acquire enough food to meet the needs of all their members because they had insufficient money or other resources for food.⁷

According to USDA, in 2021, nearly 40 percent of food-insecure households (5.1 million) experienced very low food security, meaning one or more household members experienced disrupted eating patterns (e.g., skipping meals) or reduced food intake because they could not afford more food.⁸ According to USDA, compared with the general population, a higher proportion of households with children are food insecure—12.5 percent—and in about 0.7 percent of households with children (274,000 households), at least one child also experienced hunger, skipped a meal,

⁵GAO, *Chronic Health Conditions: Federal Strategy Needed to Coordinate Diet-Related Efforts*, [GAO-21-593](#) (Washington, D.C.: Aug. 17, 2021).

⁶GAO, *Domestic Food Assistance: Complex System Benefits Millions, but Additional Efforts Could Address Potential Inefficiency and Overlap among Smaller Programs*, [GAO-10-346](#) (Washington, D.C.: Apr. 15, 2010).

⁷U.S. Department of Agriculture, Economic Research Service, *Household Food Security in the United States in 2021*, Economic Research Report No. 309 (Washington, D.C.: September 2022). According to this report, U.S. households were food secure throughout the entire year in 2021 when they had access at all times to enough food for an active, healthy life for all household members.

⁸In 1995, USDA's Economic Research Service began tracking the number of households that are uncertain of having, or unable to acquire, enough food because they lack resources and uses the term low food security or very low food security, not hunger, to describe these households. USDA adopted these terms in response to recommendations by a National Academies of Science, Engineering, and Medicine panel, which found the term hunger to be inappropriate when describing low-income households that lack enough food both because of the difficulties in measuring hunger and because hunger has physiological definitions that do not necessarily correspond to nutritional insufficiency.

or did not eat for a whole day because there was not enough money for food at some time during the year.⁹

According to USDA officials, multiple studies have found that food insecure adults have lower quality diets compared with food secure adults. Specifically, they have lower mean Healthy Eating Index scores; consume fewer fruits, vegetables, and dairy products; and have lower intakes of key vitamins and minerals.¹⁰ Children’s diets seem to be less affected, possibly because of adults’ efforts to shield children from the impacts of food insecurity, as well as children’s opportunity to access USDA school meals and other child nutrition programs that provide access to healthy meals.¹¹

According to a 2022 HHS report, hunger and diet-related diseases disproportionately affect underserved communities, such as Alaska Native, Black, Latino, veterans, and Americans living in rural areas.¹² In September 2015, the Environmental Protection Agency and USDA announced a goal of reducing food loss and waste by 50 percent by 2030 in order to, among other things, improve food security.¹³ In addition, in April 2019, USDA, Environmental Protection Agency, and Food and Drug

⁹U.S. Department of Agriculture, *Household Food Security in the United States in 2021*.

¹⁰U.S. Department of Agriculture, Economic Research Service, Food Security and Food Purchase Quality Among Low-Income Households: Findings From the National Household Food Acquisition and Purchase Survey (FoodAPS), Economic Research Report No. 269 (Washington, D.C.: August 2019); Cindy W. Leung et al. “Food insecurity is inversely associated with diet quality of lower-income adults,” *Journal of the Academy of Nutrition and Dietetics*, vol. 114, no.12 (2014):1943-1953.e2; and Karla L. Hanson and Leah M. Connor, “Food insecurity and dietary quality in US adults and children: a systematic review,” *The American Journal of Clinical Nutrition*, vol. 100, no. 2 (August 2014): 684–692.

¹¹Hanson and Connor, “*Food insecurity and dietary quality*,” U.S. Department of Agriculture, Economic Research Service, *Children’s Food Security and USDA Child Nutrition Programs*, Economic Information Bulletin No. 174 (June 2017); and Sarah Forrestal et al., “Associations among Food Security, School Meal Participation, and Students’ Diet Quality in the First School Nutrition and Meal Cost Study,” *Nutrients*, vol.13, no. 307 (2021). <http://doi.org/10.3390/nu13020307>.

¹²U.S. Department of Health and Human Services, *Current Federal Programming and Coordination Efforts Related to Food and Nutrition Insecurity and Diet-Related Diseases* (Washington, D.C.: July 2022).

¹³For more information, see GAO, *Food Loss and Waste: Building on Existing Federal Efforts Could Help to Achieve National Reduction Goal*, [GAO-19-391](https://www.gao.gov/products/2019-391) (Washington, D.C.: June 21, 2019).

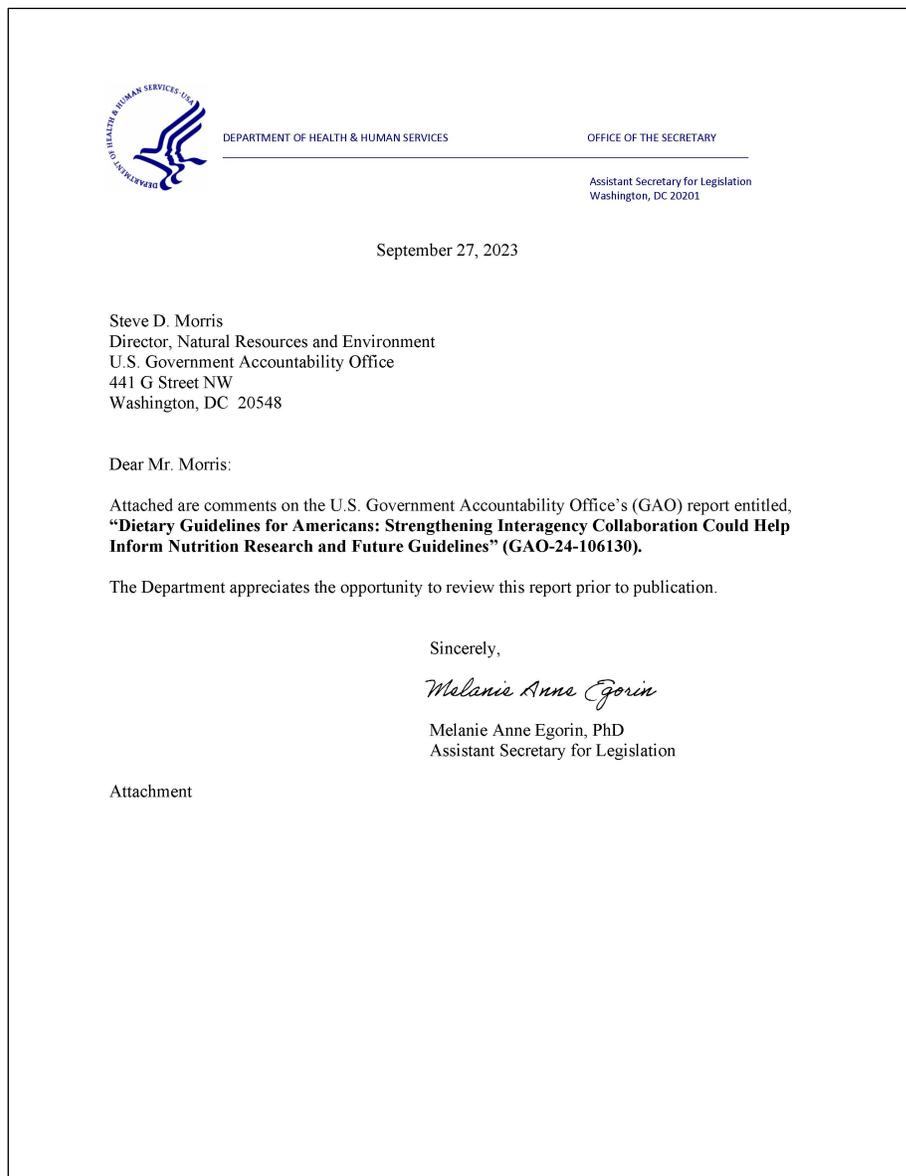
Administration released a federal interagency strategy to reduce food waste.¹⁴

However, healthy eating across the life span promotes health, can prevent or delay the onset of some chronic health conditions, and helps people manage these conditions and prevent complications.¹⁵ For example, according to the Dietary Guidelines for Americans (DGA), consistent evidence demonstrates that a healthy dietary pattern is associated with beneficial outcomes for all-cause mortality, cardiovascular disease, overweight and obesity, type 2 diabetes, bone health, and certain types of cancer (breast and colorectal). According to the DGA, there is a consistent association between recommended dietary patterns and health outcomes, regardless of the region or cultural context in which a healthy dietary pattern is consumed.

¹⁴U.S. Environmental Protection Agency, U.S. Department of Agriculture, and U.S. Food and Drug Administration, *Winning on Reducing Food Waste FY2019-2020 Federal Interagency Strategy* (April 2019), accessed June 5, 2023, <https://www.epa.gov/sustainable-management-food/winning-reducing-food-waste-federal-interagency-strategy>.

¹⁵U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, “*Poor Nutrition*” (Atlanta, GA: September 2022), accessed July 11, 2021, <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/nutrition.htm>.

Appendix IV: Comments from the Department of Health & Human Services



GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED - DIETARY GUIDELINES FOR AMERICANS: STRENGTHENING INTERAGENCY COLLABORATION COULD HELP INFORM NUTRITION RESEARCH AND FUTURE GUIDELINES (GAO-24-106130)

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity to review and provide comments on the Government Accountability Office's (GAO) draft report.

Recommendation

The Secretary of Health and Human Services should ensure that the Assistant Secretary of Health—as co-chair of the Interagency Committee on Human Nutrition Research—fully incorporate seven leading interagency collaboration practices in order to better inform and prioritize DGA-related nutrition research. Actions to incorporate these practices could include ensuring that agency research plans are complementary and reflect the current desired outcomes and conducting an inventory of federal authorities, activities, and appropriations related to nutrition research and the DGA development process.

HHS Response

HHS concurs with the GAO recommendation.

As a co-chair of the Interagency Committee on Human Nutrition Research (ICHNR), HHS agrees that improved collaboration to prioritize research to inform future Dietary Guidelines is useful. HHS will continue to coordinate with other ICHNR members to review the leading interagency collaboration practices that GAO identified in their report while balancing resource and funding limitations.

Text for Appendix IV: Comments from the Department of Health & Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES
OFFICE OF THE SECRETARY
Assistant Secretary for Legislation
Washington, DC 20201

September 27, 2023

Steve D. Morris Director, Natural Resources and Environment U.S. Government
Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Morris:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "**Dietary Guidelines for Americans: Strengthening Interagency Collaboration Could Help Inform Nutrition Research and Future Guidelines**" (GAO-24-106130).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Melanie Anne Egorin, PhD
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED - DIETARY GUIDELINES FOR AMERICANS: STRENGTHENING INTERAGENCY COLLABORATION COULD HELP INFORM NUTRITION RESEARCH AND FUTURE GUIDELINES (GAO-24-106130)

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Appendix V: Comments from USDA



United States
Department of
Agriculture

Research
Education
Economics

Office
of the Under
Secretary

Room 216W
Jamie L. Whitten Building
Washington, DC 20250-0110

Mr. Steven D. Morris
Director
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548

SUBJECT: Draft report entitled "Dietary Guidelines for Americans: Strengthening Interagency Collaboration Could Help Inform Nutrition Research and Future Guidelines (GAO-24-106130)"

Dear Mr. Morris:

This is in response to your request of August 24, 2023, for U.S. Department of Agriculture (USDA) review and comment on the above-referenced proposed Government Accountability Office (GAO) engagement ("GAO draft report") on the Dietary Guidelines for Americans (DGA). We appreciate the opportunity to demonstrate our ongoing commitment to provide nutritional guidance.

USDA generally agrees with GAO's findings.

We would like to provide the following general comments and enclosure, in addition to some minor edits to the GAO draft report.

Page 2 – Footnote #7: The font color is not consistent with entire document.

Page 6 – Please note that the Agriculture and Food Research Initiative (AFRI) is one of the main USDA funding programs supporting DGA research. AFRI is a program of USDA's National Institute for Food and Agriculture (NIFA).

Page 9 – There needs to be a dot after 'U.S.'

Note: The U.S. Department of Agriculture uses nationally representative survey data called What We Eat in America.

Page 10 – Recommend changing the wording for the sentence starting as follows:
Selected Agencies Are Taking Various Actions to Promote the DGA, as Required by Statute

Page 10 – Please consider adding the words "education" and "Extension." These correlate with many of the 11 categories mentioned in the following sentence.

Appendix V: Comments from USDA

Mr. Steven D. Morris

Page 2

Page 14 – Recommend capitalizing ‘S’ in ‘states.’

HHS assists States to develop policies ...

Page 16 – This statement could go in multiple categories.

USDA NIFA uses DGA recommendations and USDA MyPlate materials in the Expanded Food and Nutrition Education Program (EFNEP) and other nutrition education programs to reach historically underserved populations, such as families with low incomes. Additionally, USDA NIFA supports the Land-Grant University Cooperative Extension System, which also utilizes DGA recommendations and USDA MyPlate materials in their nutrition education and outreach efforts across the nation.

References:

<https://www.nifa.usda.gov/grants/programs/capacity-grants/efnep/about-efnep>

<https://www.nifa.usda.gov/about-nifa/how-we-work/extension/cooperative-extension-system>

Page 18 – Please add the Office of the Chief Scientist to the list from the USDA REE Mission Area.

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Change to the following, “In addition, the Office of the Chief Scientist led the development of the first Department-wide USDA Science and Research Strategy, 2023-2026, which includes Priority 3, Bolstering Nutrition Security and Health, as one of its top five research priorities.”

Page 20 – USDA NIFA conducted a review of its AFRI program area portfolio in 2016 regarding DGA alignment (see references below). Furthermore, from 2009 to 2023, USDA NIFA AFRI program areas have supported 148 research, education, and Extension projects (\$174M), that inform and prioritize the DGAs.

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Appendix V: Comments from USDA

Mr. Steven D. Morris
Page 3

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“The Administration will increase collaboration across nutrition science and research priorities to identify the research and data needs that are most likely to make a meaningful impact on food security and nutrition. Working with external scientific experts, the Interagency Committee on Human Nutrition Research, and the White House Office of Science and Technology Policy (OSTP), the President’s Council of Advisors on Science & Technology (PCAST) will identify scientific opportunities, gaps, and priorities to continue to advance nutrition science, with a particular emphasis on ensuring equitable access to the benefits of research.”

Page 20 – No apostrophe needed in ‘DRI’s’.

National Academies to update various DRI’s from fiscal year 2023 through fiscal year 2026.

Page 24 – Please add the following text:

Consider for accuracy on pages 24 and 26 comments about the roadmap being replaced by the National Strategy, as the National Strategy Pillar 5 calls for an updated vision that is part of the path forward. Work is underway by PCAST and ICHNR to move this action forward, so would suggest reflecting on that progress.

Page 26 – Footnote #67 – Recommend adding ‘the’

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Appendix V: Comments from USDA

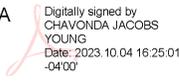
Mr. Steven D. Morris
Page 4

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Thank you for providing us with the opportunity to comment.

Sincerely,

CHAVONDA
JACOBS
YOUNG



Digitally signed by
CHAVONDA JACOBS
YOUNG
Date: 2023.10.04 16:25:01
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CHAVONDA JACOBS-YOUNG
Under Secretary

Enclosure:
Food and Nutrition Service additional comments

Text for Appendix V: Comments from USDA

United States Department of Agriculture
Office of the Under Secretary
Room 216W
Jamie L. Whitten Building
Washington, DC 20250-0110

Mr. Steven D. Morris
Director
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548

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Sincerely,

CHAVONDA JACOBS-YOUNG
Under Secretary

Enclosure:

Food and Nutrition Service additional comments

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

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