May 16, 2022

Janet M. de Jesus, MS, RD
Office of Disease Prevention and Health Promotion (ODPHP)
Office of the Assistant Secretary for Health (OASH)
U.S. Department of Health and Human Services
1101 Wootton Parkway, Suite 420
Rockville, MD 20852


Dear Ms. de Jesus:

The Academy of Nutrition and Dietetics (the “Academy”) appreciates the opportunity to submit comments to the U.S. Department of Health and Human Services and the U.S. Department of Agriculture (collectively, the “agencies”) related to the published item “Request for Comments on Scientific Questions To Be Examined To Support the Development of the Dietary Guidelines for Americans, 2025–2030” (Docket No. HHS-OASH-2022-0005-0001) (the “request for comments”) published in the Federal Register on April 15, 2022. Representing over 113,000 registered dietitian nutritionists; nutrition and dietetic technicians, registered; and advanced-degree nutritionists; the Academy is the largest association of food and nutrition professionals in the United States committed to accelerating improvements in global health and well-being through food and nutrition. Our members have helped conduct, review, and translate nutrition research for each previous edition of the Dietary Guidelines for Americans (the “Guidelines” or DGA), served on the advisory committees for the Guidelines, and will work to help consumers, industry, schools, and food assistance programs choose meal patterns in accordance with the recommendations of the finalized 2025-2030 iteration.

The Academy supports the agencies’ efforts implementing recommendations to improve the processes by which the quinquennial Guidelines are developed, enhance transparency, and increase opportunities for public participation at various stages of development. We respectfully submit these comments to further improve the DGA by ensuring inclusion of critical topics and we strongly support the proposed questions to develop scientifically sound Guidelines for helping Americans create healthy, sustainable eating patterns that will equitably help people achieve and maintain health and reduce the risk of disease throughout the lifespan.

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1 The Academy approved the optional use of the credential “registered dietitian nutritionist (RDN)” by “registered dietitians (RDs)” to more accurately convey who they are and what they do as the nation’s food and nutrition experts. The RD and RDN credentials have identical meanings and legal trademark definitions.
A. Emphasis on Weight Loss and Weight Maintenance

The DGAs for 35 years have provided life-saving advice to consumers seeking to reduce their risk of diet-related disease. This advice has never been more critical. Two out of three American adults\(^2\) and one out of three children\(^3\) are overweight or have obesity. Nearly half of adults have diabetes or prediabetes,\(^4\) and roughly half of adults have high blood pressure,\(^5\) a major risk factor for heart disease and stroke. Furthermore, 13 cancers, including breast, colorectal, esophageal, renal, and uterine, are linked to overweight or obesity.\(^6\) The Academy thus strongly supports and appreciates the significance of the agencies’ intention to include the relationship between diet and risk of overweight and obesity with a new emphasis on weight loss and weight maintenance.

1) Scientific Report Findings

The 2020 Scientific Report explicitly detailed the obesity epidemic in America and its associated comorbidities:

“As was true for the 2010 and 2015 Committees, the 2020 Committee’s work took place against a backdrop of several significant nutrition-related issues in the United States.

- “More than 70 percent of Americans have overweight or obesity, and the prevalence of severe obesity has increased over the past 2 decades. The increasing prevalence of overweight and obesity at young ages is of particular concern because of their effects on the current health of the child as well as the risks of persistent overweight or obesity into adulthood.

- “The high rates of overweight and obesity are an important public health problem in and of themselves, and they are a driver for prevalent diet-related chronic diseases, such as cardiovascular

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disease (CVD), type 2 diabetes, and some types of cancer. At present, 6 in 10 Americans have a chronic condition and 4 in 10 Americans have 2 or more chronic conditions. Various factors contribute to the prevalence of these chronic diseases. Prominent among these are unhealthy dietary patterns and a lack of physical activity."

"Excess adiposity is driving an increase in other chronic diseases considered by the 2020 Committee. To address this public health epidemic, reducing the incidence and prevalence of overweight and obesity is critical at every stage of life to preserve ideal health. Dietary patterns that focus on nutrient-dense foods to prevent excessive weight gain starting in pregnancy, continuing through infancy and childhood, adolescence, and adulthood are of high public health relevance."

2) Weight Bias, Stigma, and the Importance of People-First Language

The Academy encourages the agencies to be cognizant of the harmful effects of weight bias and weight stigma on individuals with higher body weight and strategies and strive to minimize and address it where possible professionally, personally, and in the development of the Guidelines. With its critical emphasis on on dietary patterns for weight loss and weight maintenance, the Guidelines’ are uniquely positioned to be a positive force in shifting false, negative perceptions about obesity and overweight. In fact, by making a simple yet critical shift in writing to use “people first language" and encouraging others to do the same, the Guidelines can help catalyze a movement and lessen weight bias and stigma that makes it more difficult for individuals with obesity and overweight to adopt the very recommendations comprising the Guidelines.

As The Obesity Society has written:

Bias and discrimination against people with obesity is well documented. Research has demonstrated substantial impact on

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8 Scientific Report at 515 (emphasis added).
9 People-First Language for Obesity. The Obesity Society website. Accessed May 15, 2022. Available at https://www.obesity.org/download/2691/. (People-first language has been widely adopted for most chronic diseases and disabilities, but not obesity. It has become the accepted norm in addressing people with mental and physical disabilities. The rules of APA Style calls for language in all publications to “put people first, not their disability” and to "not label people by their disability." Likewise, the AMA Manual of Style requires authors to:

“Avoid labeling (and thus equating) people with their disabilities or diseases (e.g., the blind, schizophrenics, epileptics). Instead put the person first. Avoid describing person as victims or with other emotional terms that suggest helplessness (afflicted with, suffering from, stricken with, maimed). Avoid euphemistic descriptions such as physically challenged or special.”) (internal citations omitted.)
personal relationships, educational attainment, professional achievement, and healthcare delivery. Further, studies have shown that a description of a person as "obese" is sufficient to cause discrimination in the absence of any meeting with the person in question. Describing individuals as obese as opposed to having obesity could have negative impact on how people view them.

Referring to individuals as ‘obese’ has been shown to influence how individuals feel about their condition and how likely they are to seek medical care. In a study conducted by Puhl (2012) and colleagues, people preferred that health providers use the terms ‘weight,’ ‘unhealthy weight,’ and ‘weight problem’ and reported these terms to be more motivating for weight loss and less stigmatizing than being referred to ‘fat,’ ‘obese,’ and ‘extremely obese.’ When asked how they would react if they felt a doctor had stigmatized them about their weight, 19% reported they would avoid future medical appointments, and 21% would seek a new doctor (Puhl, 2012).

Labeling individuals as obese creates negative feelings toward individuals with obesity, perpetuates weight bias, and must be avoided. Health care providers who use respectful communication with their patients, such as people-first language, create positive, productive discussions about weight and health. We call upon authors and editors of scholarly research, scientific writing, and publications about obesity to use the same rules that are the norm for referring to individuals with other disabilities, diseases, and health conditions: the use of people-first language.¹⁰

B. Reviewing through a Health Equity Lens

The Academy strongly supports the agencies’ proposal that “[a]ll scientific questions will be reviewed with a health equity lens to ensure that resulting guidance in the Dietary Guidelines is relevant to people with diverse racial, ethnic, socioeconomic, and cultural backgrounds.” It is important to identify research gaps and indicate when recommendations are not well studied across populations and based on a predominately white population.

1) Food Insecurity

It is the position of the Academy of Nutrition and Dietetics that systematic and sustained action is needed to achieve food and nutrition security in the United States. To achieve food

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security, effective interventions are needed, along with adequate funding for and increased utilization of, food and nutrition assistance programs; inclusion of nutrition education in such programs; strategies to support individual and household economic stability; and research to measure impact on food insecurity- and health-related outcomes.\(^\text{11}\) The Academy has found “individuals residing in food-insecure households often follow dietary patterns that are inadequate in specific foods and nutrients. These nutritional inadequacies may contribute to malnutrition and increased risk of poor health, chronic disease, and other outcomes.”\(^\text{12}\) Moreover, it is likely that the COVID-19 pandemic will precipitate an even more substantial impact of food insecurity on dietary patterns and quality of the diet. We note the pandemic has severe effects and there is an ongoing current infant formula shortage that highlight the importance of first 1000 days and impact on nutrient needs of this group.

As the 2020-2025 Committee noted, food insecurity is pervasive, with “food insecurity and lack of access to affordable healthy food affect more than 37 million people, including 6 million children.”\(^\text{13}\) Recognizing “[r]ace and ethnicity and income also were associated with differential intakes of food groups, nutrients, and food components,”\(^\text{14}\) including a “higher prevalence of inadequate intakes...observed among Americans living in low income (350 percent of the poverty level, especially for calcium, magnesium, phosphorous, and vitamins A and C. Americans living in low income (350 percent of the poverty level),”\(^\text{15}\) the Academy believes it is essential for the agencies to both make clear this association between food insecurity and inadequate intakes in the final Guidelines and develop and fund new strategies for ameliorating it. Although “[t]he 2015 Committee described a need to understand how food security shapes dietary intakes[, the Scientific Report made clear data on dietary patterns and intakes of nutrients and food components by food security status were not available to this [2020] Committee.”\(^\text{16}\) We believe the proposed scientific questions are a significant component of the 2020-2025 DGAC’s recommended “[f]uture work to understand how overall income and food security status interact to predict dietary intakes and the resulting diet quality is needed.”\(^\text{17}\)

The DGAC should consider as a new topic the relationship between food insecurity and a) dietary intake; b) pregnancy outcomes (e.g., pregnancy weight gain); and c) breastfeeding initiation and duration. Of particular concern is the risk for food-insecure mothers who


\(^{13}\) Scientific Report at 26.

\(^{14}\) Scientific Report at 179.

\(^{15}\) Scientific Report at 169.

\(^{16}\) Scientific Report at 179.

\(^{17}\) Scientific Report at 179.
enter pregnancy with insufficient iron stores and with low-folate diets. Poor iron and folate status are linked to preterm births and fetal growth retardation, respectively.\textsuperscript{18,19} Prematurity and intrauterine growth retardation are critical indicators of medical and developmental risks that affect not only children’s short-term well-being, but also extend into adulthood.\textsuperscript{20}

Children born to mothers who were food-insecure during pregnancy may also be at increased risk of birth defects.\textsuperscript{21} Finally, research suggests that women who were marginally food insecure and had restricted their eating in an unhealthy way prior to becoming pregnant are more likely to gain excessive weight during pregnancy, which puts the mother at risk for gestational diabetes and obesity postpartum, and can predispose the baby to chronic disease through prenatal nutritional programming.\textsuperscript{22}

2) Disabilities

In addition, viewing the DGA process through a health equity lens suggests the need to consider including or adapting certain scientific questions with specific relevance to the needs and concerns of individuals who are differently abled. Individuals with developmental disabilities have chronic disease rates almost double the population. For example, the extent to which recommended dietary patterns or feeding behaviors either accommodate or impair the needs of individuals with vision impairment, swallowing issues, or the loss of one or more limbs. The Academy respectfully suggests that special consideration of the Guidelines with respect to this particular population group is consistent with statutory requirements for the Guidelines to provide recommendations for the "general public."

3) Potential Impacts of Genetic Variations among Diverse Populations

The Academy encourages the agencies to consider the extent to which scientific evidence may support racial predisposition to diseases, e.g., Hispanics may have a higher risk of obesity and type 2 Diabetes Mellitus due to genetics variations in IRS-1 (insulin receptor) and may be susceptible to have elevated LDL due to mutations to LDL receptor, thereby predisposing them to cardiovascular disease and other concerns. The NIH just showcased heterogeneity of obesity and examined transition to metabolically harmful obesity for these populations. We also recommend considering issues of stunting among children and adolescents with specific consideration to the findings potentially showing Hispanic and Latino children experience increases in weight with slower growth in height. Finally, we encourage considering variations in the risk of NASH among children in at-risk populations and differing ethnic and racial demographics.

19 Haider, \textit{op. cit.}
22 Laraia B, Epel E, Siega-Riz AM. Food insecurity with past experience of restrained eating is a recipe for increased gestational weight gain. \textit{Appetite.} 2013;65, 178-184.
C. Additional Topics to Be Considered Separately

The agencies noted there were two topics not on the list of scientific questions “to be examined by the 2025 Dietary Guidelines Advisory Committee that will be addressed in separate processes:” sustainability and alcoholic beverages. In doing so, it is imperative that the 2025-2030 DGA encompass all of the federal government’s evidence-based recommendations on dietary practices for optimal nutrition—including new scientific evidence and current resource documents.”

We recognize the agencies are firmly committed to ensuring this happens by structuring these separate sustainability and alcohol processes with sufficient time and resources to assure they are completed in advance of the drafting of the Guidelines. If these key topics are not complete and published before the final stage of the Guideline process, it is unclear how they would be addressed in the 2025 DGA or at all, leaving significant gaps and resulting in incomplete evidence-based federal guidance for food and nutrition. The Academy believes it is important to clarify the timing of the processes and seeks to confirm that the separate sustainability process will result in the inclusion of information about sustainable diets in the 2025 DGAs (as opposed to being relegated to being the subject of a separate, stand-alone guidance resource).

The Academy underscores that it is imperative that these processes are exceedingly transparent and “exemplify the highest level of scientific integrity, public accountability, and social responsibility in the conduct of science,” consistent with the standards set by our National Institutes of Health.

For the other topics addressed in existing evidence-based federal guidance or in ERS and NIFA studies but not addressed by the Committee, we believe the findings must be included as appropriate in the Guidelines if they help guide individual consumers or institutional policies towards healthier diets or ensure federal policies align with relevant science.

1) Sustainability
We cannot again fail to do what the community of nations and the American public demand; we must ensure the Dietary Guidelines provide recommendations related to the existential cross-cutting issues of nutrition and climate change. One cannot separate recommendations for the food we eat from the reality of current and future food supply; they are The Academy strongly supports efforts to create a sustainable overall food system and urges the agencies to ensure the 2025-2030 Guidelines include guidance developed after “evaluating sustainability of recommended dietary patterns, addressing the social and economic aspects of access to foods that are components of healthy dietary patterns, and considering systemic changes to encourage behavior change consistent with the

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As the Scientific Committee wisely noted, “[t]hese comments point to areas that are important for USDA and HHS to address through appropriate mechanisms, and their consideration may provide useful approaches for implementing the recommendations in the Dietary Guidelines for Americans.”

We strongly encourage and fully expect that the agencies will utilize the work of the Dietary Guidelines Advisory Committees and its specific comments in the separate process for sustainability proposed in the published document with the proposed scientific questions. Below, we outline areas of support with the Committee’s findings for the agencies’ work on the forthcoming sustainability process.

(a) Cross-Disciplinary Standards of Evidence and Systems Thinking

The Academy supports the Committee’s recommendation to “[s]upport efforts to consider the Dietary Guidelines in relation to sustainability of the food system.” We request that the Committee continue to emphasize the importance of sustainable food systems in the development, framing and implementation of the Guidelines. Looking ahead to future iterations of the Guidelines, we encourage the agencies to embrace cross-disciplinary standards of evidence so they are equipped to incorporate a wider range of innovative research in this area.

Dietary intake does not exist in isolation from broader food systems issues. Population-wide improvements in diet quality will require multiple approaches and inter-agency coordination. Developing food systems in which dietary guidance aligns with the reality of food production may require not only promoting consumer demand for nutritious foods and closing gaps through food waste reduction efforts, but it may also require expertise available only from well-designed inter-agency coordination to develop policies that facilitate the production of nutritious foods — for example, policies that reduce risk for specialty crop growers. The relationships between diet quality, consumer demand, food supply, and other factors within the food system are complex, and it is challenging to identify feasible and effective levers of change to support improved diet quality at the population level. For this reason, we support the systems thinking approach outlined by the National Academies of Sciences, Engineering, and Medicine, and we encourage the

26 Scientific Report at 5.
27 Id. at 771.
agencies to consider the potential of sustainable food systems to support healthy dietary intake over the long term. Additionally, we encourage agencies to consider ways that coordination between additional federal agencies may be required in order to achieve the shared goals of population health.

(b) Resource Use and Environmental Impacts of Certain Dietary Patterns

A question that requires further investigation in the forthcoming iteration and in future iterations of the Dietary Guidelines is the resource use and environmental impact of specific dietary patterns. A growing body of literature increasingly points to not only potential co-benefits but also potential trade-offs between diet quality and environmental impact.\(^{32,33}\) A recent examination of global dietary guidelines suggested the 2015 Dietary Guidelines may be incompatible with food-related emission targets set by the Paris Climate Accord by over 300 percent.\(^{34}\) Thus, dietary patterns can be viewed not only on the basis of their ability to promote health outcomes, but also on the basis of their ability to mitigate environmental impact and achieve the targets set by 197 member states outlined by the United Nations Sustainable Development Goals.

This is an area that requires cross-disciplinary collaboration in order to inform rigorous review methods. The agencies’ process for assessing sustainability and nutrition issues will wish to assess the bidirectional relationship between dietary intake and environmental factors,\(^{,}\) which will require standards for assessing evidence quality that differ from the standards used to assess diet-disease relationships. For example, when assessing the quality of research that uses life cycle assessments to quantify environmental impact, criteria such as whether a study was randomized or double-blinded may not apply and different standards are needed to judge evidence quality. This does not mean future sustainability analyses should shy away from incorporating evidence from other disciplines; rather, we reinforce the importance of collaborating with related disciplines to ensure the Dietary Guidelines can draw from a range of high-quality evidence on a multitude of factors that affect and are affected by dietary intake.

Additional relationships requiring further investigation and incorporation into future iterations of the Dietary Guidelines include the impact of climate change on nutrient content of food commodities and crop yields and, therefore, availability of consumable food calories; and the environmental impact of specific dietary patterns and food production methods. the Academy requests the agencies assess the bidirectional relationship between dietary intake and food systems that may require standards for assessing evidence quality which differ from the standards used to assess diet-disease relationships.

(c) Proposed Scientific Questions for Sustainability Process


The Academy respectfully offers below several proposed scientific questions for the separate process on this topic the agencies will originate as outlined in the published document. We note the questions are also relevant to food insecurity and other cross-cutting issues.

- What is our nation’s capacity to supply, consistently and equitably across regions, the foods recommended by the proposed dietary pattern(s), and if that supply is insufficient or inequitably distributed, what (if any) shifts in agricultural production (i.e. what is produced and how) and policy would be needed to ensure sufficient supply of the recommended foods or food groups.

- Whether U.S. households are able to afford the proposed dietary patterns and the likelihood of long-term adherence to the proposed dietary pattern(s)? In addition, the agencies should assess what, if any, geographic or demographic disparities exist in households’ ability to afford adherence to such a pattern.

- If financial or geographic access to and intake of such foods is inequitable, what evidence-based programs and policies (e.g. based on experiences and experiments at the local, state and regional levels) could be tested or scaled nationally to reduce such disparities and bolster implementation of and adherence to the Guidelines.

- Evaluate the estimated economic impact (e.g. on our agricultural economy) and ecological impact of collective adherence to the Guidelines and of any shifts in production needed to better support the proposed dietary pattern(s).

2) Alcohol

The agencies should similarly utilize the 2020-2025 Advisory Committee’s expertise and recommendations related to alcoholic beverages detailed in its Scientific Report as the baseline for examining this high priority topic in a separate process. In addition, we encourage consideration of increased alcohol intake during the pandemic and early consumption of alcohol by nation’s youth. As the Committee noted:

“The American dietary landscape has not changed appreciably in recent decades. Across the life course, it is characterized by a persistent overconsumption of total energy (i.e., calories), saturated fats, salt, added sugars, and alcoholic beverages among a high proportion of those who choose to drink.”

We align ourselves with the Committee’s findings and recommendations, subject the below bulleted considerations and recommendations for the agencies to consider in the process:

- The Committee’s recommendations regarding alcohol consumption appear to be based in part on certain subjective factors, such as public health concerns the subcommittee felt warranted recommended against consumption. We encourage the agencies to assess the extent to which the

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35 Scientific Report at 175-176 (emphasis added).
preponderance of evidence actually supports a recommendation on this basis.

- As with other areas in the Dietary Guidelines, the methodology for estimating alcohol intake suffers from a lack of standardization and specificity. As noted previously, measurement should occur at multiple timepoints to ensure accurate consumption estimation.

- The Academy recommends funding additional well-designed studies on alcohol intake, and we note the Committee specifically suggests more Mendelian randomization studies that stratifies individuals based on relevant genetic variants before randomization.\textsuperscript{36}

- Research is needed on alcohol consumption to understand the impacts of different amounts of different alcoholic beverages consumed as part of different patterns over the lifespan have on various health outcomes.\textsuperscript{37,38}

- Similar to problems with how human milk consumption is measured, the Committee notes there is a lack of research that fully distinguishes between different alcohol consumption patterns such as life-long ‘never drinkers’ versus prior drinkers who now abstain entirely. Alcohol patterning is poorly understood, with much research assessing total or average alcohol consumption rather than a more complex analysis of frequency and volume.

D. Effective Implementation of DGAs

The National Academies estimated that “less than 10% of Americans actually follow the Guidelines.”\textsuperscript{39} Despite the strength of the recommendations and the evidence underlying them, the Guidelines cannot meet their promise without substantially more widespread and effective implementation. Implementation science is relatively new but shows significant promise in its value, and thus we encourage the DGAC to add a new topic for improving strategies for implementation of the Guidelines in the 2025-2030 iteration.

Effective implementation likely includes tailoring of the implementation strategies to the contextual needs of a particular change effort. The Academy supports assessing the ability of various subgroups of the population to effectively implement the Guidelines in their own lives, including those with overweight and obesity, struggles with hunger and food insecurity, and other impediments—and we recognize the work of the agencies in this endeavor. Effective implementation of the DGAs also require that the Guidelines themselves recognize the functional reality that the socio-economic status of many Americans and environmental conditions greatly limit opportunities to incorporate the DGAs into one’s lifestyle. We don’t want to change culinary traditions, but we can introduce

\textsuperscript{36} Id. at 795-796.
\textsuperscript{37} Id at 795-796.
\textsuperscript{38} Id at 797.
\textsuperscript{39} NASEM 2 at ix.
healthier preparations, such as by substituting certain ingredients for others while still maintaining the inherent taste, quality, and other essential characteristics of cherished recipes. These efforts benefit from broad collaboration in the development and encouragement of culturally-tailored tools for enhancing awareness and education of best practices.

The Academy welcomes a scientific review of strategies to help best facilitate the adoption or selection of healthy dietary patterns among Americans. **We encourage the DGAC to review the extent to which successful implementation of dietary recommendations depends upon how referenced dietary patterns are interpreted by various subpopulations and the referenced diets or eating styles those subpopulations adopt. Given the preponderance of overweight, obesity and chronic disease in the U.S., we applaud the agencies’ intention to ensure the Guidelines are designed to address the nutritional needs, across all life stages, of both those who are 'healthy'**40 and those with overweight, obesity and other diet-related chronic diseases.

**E. Proposed Topics and Questions Across Life Stages**

1) **Saturated Fats, Beverages, and Added Sugars**

We support inclusion of scientific questions assessing whether saturated fats have a different relationship to risk of CVD or other disease states based on the food source of the saturated fats (e.g., dairy, eggs, beef, palm, coconut, etc.) based upon empirical evidence of the health effects of the actual foods. We also encourage a review of the benefits of low-fat dairy foods as compared to regular-fat dairy foods among varying food categories (i.e., cheese, yogurt, milk). We note that the 2020-2025 Advisory Committee found “[i]nsufficient evidence is available to draw a conclusion about the relationship between the type of milk (i.e., milk fat content, flavor) and adiposity in children,” but other reputable entities who have reviewed guidelines (e.g., NASEM41) and done narrative reviews (Healthy Eating Research: *Healthy Beverage Consumption in Early Childhood*42) recommended not including flavored milk. We encourage the agencies to propose scientific questions to clarify recommendations and distinguish or harmonize any differences from other reputable bodies.

Furthermore, we appreciate that the agencies appear to propose enabling the DGAC to examine the evidence on saturated fats and CVD for everyone aged 2 or older, not merely for adults 19–64, because evidence shows atherosclerosis begins in childhood and continues beyond age 64. As in the previous iteration of the Guidelines, the DGAC should

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40 We note the FDA’s ongoing difficulty arriving at the functional and informative definition of the term “healthy.”


consider any new evidence comparing the effects of replacing saturated fatty acids with polyunsaturated fatty acids (and monounsaturated fatty acids) on the risk of CVD with the effects of replacing carbohydrates with polyunsaturated fatty acids (and monounsaturated fatty acids) on the risk of CVD.

We also support the inclusion or proposed scientific questions examining the relationship between both (a) beverage consumption and (b) added sugars consumption during childhood, adolescence, and adulthood compared with growth, size, body composition, risk of overweight and obesity, weight loss and maintenance, and of type 2 diabetes.

2) Distinct Age Groupings

There are many differences in the nutritional and dietary needs of young children and adolescents. The health needs, eating habits, physical activity levels, hormones, energy metabolism, and other characteristics differ significantly among children and maturing adolescents. For this reason, the DGA topics should be considered separately for young children and adolescents using the Tanner stages or other sufficiently helpful scale. We also recommend the consideration of phytochemicals and plant-based foods in assessing and defining dietary patterns for children and adolescents.

3) Feeding Styles

The Academy strongly supports the proposed scientific questions related to “Strategies for Individuals and Families Related to Diet Quality & Weight Management.”

The period of time from birth to age two represents a highly sensitive period of time for children to learn to accept and like healthy food. Thus, we support the proposed scientific questions examining the relationship between parental and caregiver feeding practices during childhood and adolescence and responsive feeding practices on growth, size, body composition, and risk of overweight and obesity and consuming a dietary pattern that is more aligned with the Dietary Guidelines for Americans. We also suggest specific consideration of those relationships on cognitive development and short- and long-term health.

With regards to complementary eating, the Academy encourages the agencies to consider these practice recommendations through a diversity and health equity lens, with specific consideration to food allergens and the introduction of foods in Hispanic and Latino communities. In addition, we encourage specific consideration of relationship between high protein intake and the risk of obesity. Finally, we note the importance of continuing research around the timing of introduction of complementary foods, nutrition, and


breastfeeding on a child’s development—and viewing that research through a health equity and diversity lens.\textsuperscript{45}

The Academy also supports the proposal to examine more long-term health outcomes, including whether there is a relationship “between [1] timing of eating occasions (\textit{e.g.}, eating breakfast, limiting eating late in the day, snacking, intermittent fasting, time-restricted eating”) or religious/holiday centered fasting such as Ramadan or Lent and (2) growth, size, body composition, risk of overweight and obesity, and weight loss and maintenance and (3) consuming a dietary pattern that is more aligned with the Dietary Guidelines for Americans.

4) \textit{Ultra-Processed Foods}

The Academy supports the proposed inclusion of scientific questions around “the relationship between consumption of dietary patterns with varying amounts of ultra-processed foods and growth, size, body composition, risk of overweight and obesity, and weight loss and maintenance.” It is, of course, essential to define “ultra-processed” appropriately at the outset, and the Academy does not now propose such a definition.

Habitual consumption of processed foods high in sugars, saturated fats, sodium and energy may increase one’s risk of developing obesity, which exacerbates into metabolic syndrome. These foods are nutritionally low and calorically dense. Simultaneously, research has shown these foods are addictive and were manufactured with that knowledge. This creates a positive feedback loop between consuming these foods and eating past caloric needs – leading to weight gain. Physiological factors that contribute to this feedback loop—such as eating foods that are hyper concentrated in either sugars, saturated fats, sodium, energy, or any combination thereof—release serotonin and dopamine. The loop continues as these “happy” hormones leads the brain to associate these foods as a happy experience that can be reexperienced simply by eating even more of these foods.

We look forward to working with the agencies and other stakeholders to identify and consider the specific factors necessary for any definition to be both functional and scientifically relevant. What process, quantity, ingredient, or combination thereof distinguishes “ultra-processed” food from something nearly identical that is only “very, very processed”? Americans often equate “junk food” with “ultra-processed food.” What are the differentiating factors? Will other existing federal definitions of “processing” inform the definition?

The Academy previously noted the need to better clarify definitions for “lean meat,” “processed meat,” and “appropriate dairy.” It also is important to reiterate definitional issues and associated research limitations identified by the Committee that the agencies

\textsuperscript{45} \textit{See}, \textit{e.g.}, Signe Bruun, Susanne Buhl, Steffen Husby, Lotte Neergaard Jacobsen, Kim F. Michaelsen, Jan Sørensen, and Gitte Zachariassen. \textit{Breastfeeding Medicine}. Nov 2017. 554-560. \url{http://doi.org/10.1089/bfm.2017.0054}
should be aware of as they utilize specific terminology in the final Guidelines. Specifically:

“In identifying the dietary components, the Committee used the terminology in the papers evaluated and **a limitation is that terms such as lean meat, red meat, processed meat were not always defined clearly or differentiated from each other**. This type of specification is important for future work on dietary patterns.”

In translating this scientific report into guidelines for the public we encourage a focus on food groups and food sources with recognition that the fatty acid profile of various food sources of saturated fat, as well as the overall nutrient composition, can be rather different. For instance, contrast lean red meat with high-fat processed meats; or contrast full-fat dairy products with tropical oils; or contrast natural foods with (well-defined) processed foods. Noting the use of a new term “ultra-processed” may introduce additional complexity and confusion, the Academy recommends that the Guidelines more clearly distinguish between (1) healthy food patterns that include nutrient-dense foods, such as milk or meat, “that are lean or low in solid fats and do not have added solid fats, sugars, starches, or sodium” and (2) highly-processed foods or foods with added sugars or sodium or are fried or otherwise prepared in a manner that adds significant saturated fats. As described in the Scientific Report, “The most nutrient-dense forms of foods are those prepared with the lowest amounts of sodium, saturated fat, and added sugars.” **Substituting foods prepared with saturated fats with foods prepared with polyunsaturated fat is an important strategy for lowering risk of cardiovascular disease.**

In addition, and recognizing associated benefits, we note there are complications arising from the Committee’s exclusion of dietary patterns based on nutrients, which might offer opportunities to help us to compare and replicate study findings even where there are variations in foods and beverages due to culture and region.

**F. Conclusion**

The Academy sincerely appreciates the opportunity to respond to the agencies’ request for comments on proposed scientific questions, and we would welcome the opportunity to discuss the above issues and suggestions with the agencies in the future. Please contact either Jeanne Blankenship by telephone at 312-899-1730 or by email at jblankenship@eatright.org or Pepin Tuma by telephone at 202-775-8277 ext. 6001 or by email at ptuma@eatright.org with any questions or requests for additional information.

Sincerely,

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46 Scientific Report at 511 (emphasis added).
47 Id. at 630.
48 Id. at 62.
Jeanne Blankenship, MS RDN
Vice President
Policy Initiatives and Advocacy
Academy of Nutrition and Dietetics

Pepin Andrew Tuma, Esq.
Senior Director
Government & Regulatory Affairs
Academy of Nutrition and Dietetics