

**2025 DIETARY GUIDELINES
ADVISORY COMMITTEE
MEETING 2**

Convened by the
**U.S. Department of Health and Human Services (HHS)
U.S. Department of Agriculture (USDA)**

May 10, 2023

Dietary Guidelines Advisory Committee Members present:

- Dr. Sarah Booth (Chair)
- Dr. Angela Odoms-Young (Vice Chair)
- Dr. Steven Abrams
- Dr. Cheryl Anderson
- Dr. Aline Andres
- Dr. Carol Byrd-Bredbenner
- Dr. Andrea Deierlein
- Dr. Heather Eicher-Miller
- Dr. Teresa Fung
- Dr. Christopher Gardner
- Dr. Edward Giovannucci
- Dr. Deanna Hoelscher
- Dr. Valarie Blue Bird Jernigan
- Dr. Jennifer Orlet Fisher
- Dr. Cristina Palacios
- Dr. Hollie Raynor
- Dr. Fatima Cody Stanford
- Dr. Sameera Talegawkar
- Dr. Chris Taylor
- Dr. Deirdre Tobias

Also present:¹

- Ms. Janet de Jesus, HHS, Designated Federal Officer
- Rear Admiral Paul Reed, Deputy Assistant Secretary for Health and Director, Office of Disease Prevention and Health Promotion, HHS
- Dr. Eve Stoody, Director, Nutrition Guidance and Analysis Division, USDA

Venue

The Dietary Guidelines Advisory Committee met in the conference center of the Tower Building, which houses the HHS Office of Disease Prevention and Health Promotion, at 1101 Wootton Parkway, Rockville, MD. The meeting was open to the public via live webcast.

¹ The individuals listed here facilitated some of the meeting agenda items and are listed in the order of appearance on the agenda. Additional in-person attendees included HHS and USDA staff members and contractors who are supporting the *Dietary Guidelines for Americans, 2025-2030*.

The following is a summary of Meeting 2. For additional details, refer to the [agenda](#), [videocast recording](#), and the [Meeting 2](#) page of [DietaryGuidelines.gov](#).

WELCOME AND OPENING REMARKS

The second meeting of the 2025 Dietary Guidelines Advisory Committee (Committee) was convened at 9:00 AM on Wednesday, May 10, 2023, at the Tower Oaks conference center of the Tower Building in Rockville, MD.

Ms. Janet de Jesus, Designated Federal Officer for the 2025 Dietary Guidelines Advisory Committee and a Nutrition Advisor in the HHS Office of Disease Prevention and Health Promotion, introduced herself and welcomed attendees to the meeting. She noted that all 20 Committee members were present in person for the meeting and highlighted that the next public meeting (Meeting 3, September 13) will include an opportunity for oral comments from the public and that the Committee will present its draft report at Meeting 6 (tentatively scheduled for September 26, 2024). She next reviewed the day's agenda: opening remarks and an update on related projects from federal staff members, remarks from the Committee Chair and Vice-Chair, subcommittee and working group presentations, and Committee discussion.

Ms. de Jesus highlighted important points about the Committee's charge: to describe the state of current nutrition science in a report that is submitted to the Secretaries of HHS and USDA for consideration as the Departments develop the *Dietary Guidelines*. The Committee examines the evidence on topics and scientific questions identified by the Departments. To develop the scientific questions, HHS and USDA conducted a year-long process to gather information, consider input from federal experts, and review relevant documents. The proposed questions examine a range of health outcomes across the lifespan and the Committee will answer them using three approaches: systematic reviews, data analysis, and food pattern modeling. The Committee has finite time and membership and will not conduct formal review of topics that are addressed by existing evidence-based federal guidance (see section on "Update on Related Projects" for details). The public can follow the Committee's progress at [DietaryGuidelines.gov](#) (select "[Work Under Way](#)").

OPENING REMARKS

Rear Admiral Paul Reed explained that the mission of the Office of Disease Prevention and Health Promotion is to encourage all Americans to lead healthy, active lives. He highlighted the September 2022 White House Conference on Hunger, Nutrition, and Health, which issued a call to action to end hunger, improve nutrition, and reduce the prevalence of diet-related diseases by 2030. Strategies that the federal government will take to achieve that goal are outlined in a corresponding National Strategy on Hunger, Nutrition, and Health. The *Dietary Guidelines* underpin many activities in the [National Strategy](#) and can support overall wellbeing, equity, and enhanced resilience so that all Americans have an opportunity to thrive. Rear Admiral Reed emphasized that the Departments greatly rely on feedback from researchers, public health organizations, health care providers, and other stakeholders as they develop the *Dietary Guidelines*. He also referenced a [call to action](#) for individuals to play an active role in participating in the public process, submitting comments, and urging others to do the same.

UPDATE ON RELATED PROJECTS

Dr. Eve Stoodly shared updates on five federal government projects that are underway to address topics related to the *Dietary Guidelines*. Therefore, those topics will not be addressed by the Committee to avoid duplication. These projects are described at <https://www.dietaryguidelines.gov/related-projects>.

First, the Healthy Eating Index (HEI)-2020—a tool designed to evaluate how well a set of foods and beverages aligns with dietary patterns recommendations in the *Dietary Guidelines 2020-2025*—is expected to be published in the *Journal of the Academy of Nutrition and Dietetics* in September. This will update the HEI-2015. A new tool, the HEI-Toddlers-2020, will also be published to reflect guidance for ages 12 through 23 months.

Second, a standing committee within the HHS Substance Abuse and Mental Health Services Administration (SAMHSA) will support a technical subcommittee to review evidence on alcohol intake and health and make recommendations on adult alcohol consumption in a report to be published in 2025. A NASEM committee will conduct a series of systematic reviews on alcoholic beverages and health, the findings of which will be considered by the SAMHSA subcommittee in developing alcohol recommendations to be used in the development of the *Dietary Guidelines for Americans, 2020-2025*.

Third, USDA has a contract underway to gain insights from federal and non-federal experts on the applicability of systems mapping and modeling before, during, and after the *Dietary Guidelines* development process. This responds to recommendations from NASEM to explore strategies to implement systems approaches into the *Dietary Guidelines*. A report is expected at the end of 2023 and will be posted publicly.

Fourth, Dietary Reference Intakes (DRI), a set of nutrient-based recommendations that are used as inputs to the *Dietary Guidelines*, have recently been updated for energy. In addition, commissioned systematic reviews are underway by the HHS Agency for Healthcare Research and Quality on (1) dietary protein and (2) digestible carbohydrates. These updates will inform questions that the Committee has received about low carbohydrate diets.

Fifth, intersections of sustainability and nutrition are being explored through activities such as NIH's ADVANTAGE (Agriculture and Diet: Value Added for Nutrition, Translation, and Adaptation in a Global Ecology) project, and a forthcoming workgroup will be established by the Interagency Committee on Human Nutrition Research to assess merits and viability of various pathways to consider integrating sustainability in future editions of the *Dietary Guidelines*.

CHAIR AND VICE-CHAIR REMARKS

Dr. Sarah Booth (Chair) described how the Committee opted to provide its disclosures to the public; summarized the Committee's progress since Meeting 1; and provided updates on the structure of its subcommittees and working groups, the refinement and prioritization of the scientific questions it will examine, and the description of the protocol elements.

Dr. Booth explained that all Committee members underwent a thorough vetting process prior to their official appointments, and that all are compliant with federal ethics laws and regulations governing conflict of interest. In addition to satisfying those requirements, the Committee chose to voluntarily disclose relationships, activities, and interests that may potentially be related to the content of the Committee's scientific review, based on standards from the International Committee of Medical Journal Editors. The [disclosures](#) are presented collectively—because the Committee's decisions will be made collectively as it reviews the evidence and develops its report as a single entity—and represent the Committee's commitment to transparency as well as its wide engagement within the scientific community.

Since Meeting 1 (February 9-10, 2023), the Committee has divided into four topic area working groups (WG), which transitioned into four [subcommittees](#) (SC) that began meeting approximately weekly and started drafting protocols for the scientific reviews that will be conducted for the prioritized scientific questions. A new Health Equity WG was formed to discuss how to incorporate health equity principles across SCs, and a Meta-analysis WG was formed to refine protocols for a limited number of questions that will be answered using systematic reviews with meta-analyses. Each Committee member is participating in at least two of these groups; the listing of Committee and federal support staff membership for each SC and WG is included in each group's Meeting 2 presentation.

The Committee will examine the evidence using three approaches: systematic reviews (some with meta-analyses), data analysis, and food pattern modeling. It is important to consider the work of the Committee collectively, not individual questions or SCs in isolation. For example, some topics and life stages will be addressed by more than one SC, and other topics may be covered by only one SC. The WG refined and prioritized the questions based on relevance, importance to public health, potential impact to federal food and nutrition programs, avoiding duplication of federal efforts, and research availability.

Dr. Angela Odoms-Young (Vice Chair) commended the Committee for its positive energy and volume of effort to date, in collaboration with federal staff. She explained that several scientific questions proposed to the Committee had the outcome: "Growth, size, body composition, risk of overweight and obesity, and weight loss and weight maintenance"—and that for clarity and consistency with other questions, the Committee refined the wording to read "growth, body composition, and risk of obesity" across all scientific questions. The full range of outcomes, however, will still be addressed (e.g., growth and size for infants through adolescents, and weight loss and maintenance in adults and older adults).

Dr. Odoms-Young highlighted key points related to the Committee's protocols for systematic reviews and for food pattern modeling methodologies. For systematic reviews, a protocol is a pre-specified plan for how Nutrition Evidence Systematic Review's (NESR) methodology will be used to conduct the review. Each protocol includes:

- 1) an analytic framework that defines the core elements of the systematic review: population (P), intervention and/or exposure (I) and the comparator (C), and outcomes (O)—this set of elements is commonly referred to as PICO—as well as key confounders and definitions of key terms;
- 2) a synthesis plan that outlines how the evidence will be organized; and
- 3) inclusion and exclusion criteria that are used to determine which articles will be included in each review.

The elements included in food pattern modeling protocols are different compared to systematic review protocols (see section for Subcommittee 3: Food Pattern Modeling).

All protocols are created before the Committee reviews the evidence, and protocol elements are tailored for each research question to ensure applicability to the life stages of interest. Each SC will present its draft protocols during the meeting and refine the protocols in the weeks following. The protocols will be posted in early June at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov) and [NESR.usda.gov](https://www.nesr.usda.gov) to provide transparency, guard against selective reporting, and facilitate public comment. Any public feedback on the protocols is requested by the end of June 2023.

The Committee has received approximately 300 written comments since January. The comment period will remain open throughout the Committee's work, ending in Fall 2024.

HEALTH EQUITY WORKING GROUP

Dr. Sameera Talegawkar (WG Chair) stated that all scientific questions will be reviewed with a health equity lens to ensure that the next edition of the *Dietary Guidelines* is relevant to people with diverse racial, ethnic, socioeconomic, and cultural backgrounds. While the focus on health equity in the *Dietary Guidelines* process is not new, a renewed sense of urgency and importance is present. The Committee will describe and consider factors such as socioeconomic position, race, ethnicity, and culture, to the greatest extent possible, based on the information provided in the scientific literature and data.

Dr. Talegawkar shared the WG's working definitions of equity and health equity, which it adapted from existing definitions, and discussed the WG's current plans to operationalize health equity in its approaches to examine the evidence.

- For NESR systematic reviews, the WG will identify key variables of interest related to health equity to include in the search, description, evaluation, synthesis, and grading of the strength of the eligible body of evidence, where applicable and feasible. For example, it plans to address health equity-related key confounders and other variables in risk of bias assessments and consider specific sub-groups when synthesizing the evidence and developing conclusion statements.
- For food pattern modeling, variations in dietary practices (including cultural foods and traditions) will be discussed and considered in many of the prioritized analyses for food pattern modeling. An example is an analysis around flexibilities for individuals who have lactose intolerance or do not consume cow milk products. The food pattern modeling group is also exploring a new methodology called simulated diet modeling, which tests the applicability of dietary patterns across cultural foodways and considers if refinements are needed to the dietary patterns to improve cultural inclusion.
- For data analysis, the Committee will use demographic subgroups and other variables from nationally representative data sets (e.g., sex, race/ethnicity, socioeconomic status). It is also exploring the feasibility of analyzing additional data points collected by NHANES, pending generalizability and sufficient sample size, such as food security category, country of birth (in/outside the United States), health insurance coverage and type, rural/urban residence, receipt of household federal food benefit, and disability status.

The WG's next steps are to continue to refine topics and variables related to health equity to be considered by the Committee during the review of evidence, incorporate health equity considerations into the Committee's review of the scientific evidence, and develop an outline for incorporating health equity into the Scientific Report.

SUBCOMMITTEE 1: DIETARY PATTERNS AND SPECIFIC DIETARY COMPONENTS ACROSS LIFE STAGES

Dr. Deanna Hoelscher (SC1 Chair) reviewed the list of scientific questions that SC1 prioritized based on the criteria discussed by Drs. Booth and Odoms-Young. The SC will address the questions in order based on priority and efficient completion of work; questions lower on the list may not be completed due to time limitations. The questions prioritized for review include an examination of relationships between:

- dietary patterns consumed and a range of health outcomes, including risk of depression—an outcome that was not on the list provided to the Committee but was prioritized by SC1 based on federal stakeholder and public interest and availability of new evidence since the question was examined by the 2015 Committee;

- consumption of dietary patterns with varying amounts of ultra-processed foods (UPF) and growth, body composition, and risk of obesity; and
- specific dietary components (including various types of beverages, as well as food sources of saturated fat) and selected health outcomes.

Dr. Hoelscher reviewed questions not prioritized for review. The primary reason for not prioritizing questions was lack of research availability, based on NESR's continuous evidence monitoring, although other considerations played a role for some questions.

SC1 will use systematic reviews to examine its prioritized questions. Dr. Hoelscher and fellow SC1 members Dr. Deirdre Tobias, Dr. Edward Giovannucci, and Dr. Hollie Raynor presented details of the draft protocols that have been developed to date for each question, including information about the population, outcomes, and key confounders and inclusion and exclusion criteria for intervention/exposure, comparator, publication date, and study duration (intervention length, with additional criteria for follow-up duration in some cases). Some protocols also included inclusion/exclusion criteria for size of study groups. Additional protocols are in progress and will be presented at a future meeting.

The protocols presented use standard NESR criteria for study design, study participants (only human studies), publication status (published in peer-reviewed journals), language (English), country (high or very high Human Development Index countries in the year that intervention/exposure data were collected), and health status of the study population (e.g., studies that exclusively enroll participants *not* diagnosed with a disease, as well as studies that enroll *some* participants with a disease or other relevant condition). Key definitions were discussed as follows:

- **Dietary patterns:** The quantities, proportions, variety, or combination of different foods, drinks, and nutrients (when available) in diets, and the frequency with which they are habitually consumed.
- **Ultra-processed foods:** Given the range of existing food classification systems that categorize foods based on degree of processing, the SC chose not to create a predetermined definition of UPF and instead to examine what is found in the literature. SC1 will look at these foods holistically within the context of diet using a dietary patterns lens, not simply to examine individual foods that may be categorized as UPF.
- **Beverage patterns:** The quantities, proportions, variety, or combination of different beverages in diets, and the frequency with which they are habitually consumed.

Committee discussion about the draft protocols took place at three junctures in the SC1 presentation. Topics discussed included additional confounders to consider for certain questions (e.g., history of gestational diabetes mellitus for the question about dietary patterns consumed and risk of type 2 diabetes); rationale for inclusion/exclusion criteria for size of study groups and study duration for intervention length; variability in definitions for UPF and how such variability may influence evidence synthesis for that question; rationale for exclusion of adolescents from the question about dietary patterns and risk of depression; and effect of dietary assessment method on study results.

Dr. Hoelscher concluded the SC1 presentation by noting that the next steps are to develop protocols for the SC's remaining prioritized questions and to refine and implement its protocols presented on May 10, 2023.

SUBCOMMITTEE 2: DIET IN PREGNANCY AND BIRTH THROUGH ADOLESCENCE

Dr. Jennifer Orlet Fisher (SC2 Chair) presented the list of eight scientific questions that SC2 prioritized for review, which include examination of relationships between dietary patterns consumed during pregnancy and a range of health outcomes. SC2 will also examine four questions from birth through adolescence: one question about the relationship between complementary feeding and growth, body composition, and risk of obesity; and three questions that move beyond the “what” of feeding children to consider the “how,” i.e., examine the relationships between repeated exposure to foods and food acceptance, and between parental and caregiver feeding styles and selected health outcomes and dietary outcomes. The question not prioritized for review (complementary feeding and iron and zinc status) had a lack of research available to update the existing NESR review.

Of the eight prioritized questions, all but one (the new question) will be examined through updates to existing NESR reviews that were completed for the B24 project of the 2020 *Dietary Guidelines* cycle. SC2 will update and expand several of those reviews to include older age groups.

SC2 will use systematic reviews to examine its prioritized questions. Dr. Orlet Fisher and fellow SC2 member Dr. Andrea Deierlein presented details of the draft protocols that have been developed to date for each question, including information about the population, outcomes, and key confounders and inclusion and exclusion criteria for intervention/exposure, comparator, publication date, life stage of the study population, health status of the study population, analytic approach to the population enrolled, and study outcome, as applicable.

The protocols presented use standard NESR criteria for study design, study participants (only human studies), publication status (published in peer-reviewed journals), language (English), country (high or very high Human Development Index countries in the year that intervention/exposure data were collected), and health status of study population (e.g., studies that exclusively enroll participants not diagnosed with a disease, as well as studies that enroll some participants with a disease or other relevant condition). Key definitions were discussed as follows:

- **Dietary patterns:** Same definition used by SC1.
- **Complementary feeding:** The process that starts when human milk or infant formula is complemented by other foods and beverages. The complementary feeding period typically continues to 24 months as the young child transitions to family foods.
- **Complementary foods and beverages:** Foods and beverages (liquids, semisolids, and solids) other than human milk or infant formula provided to an infant or young child to provide nutrients and energy.
- **Repeated exposure:** Child is exposed to a target food/food-type multiple times; includes number, duration, and frequency.
- **Taste exposure:** Taste exposure to the target food.
- **Non-taste exposure:** Sensory exposure to the target food without tasting. Non-taste sensory exposure includes smell, tactile and visual exposure. Visual exposure could include looking at target food or a picture of a target food
- **Caregiver:** A parent or guardian who provides most of the direct care to a child in the home setting (e.g., mother, father, grandparent, and guardian).
- **Feeding practices:** Strategies or behaviors parents or caregivers use to direct child eating.
- **Responsive feeding:** Caregiver guidance and recognition of the child’s cues of hunger and satiety.

- **Non-responsive feeding:** Lack of reciprocity between the parent and child, with the caregiver taking excessive control of the feeding situation (forcing/pressuring or restricting food intake), the child completely controlling the feeding situation (indulgent feeding), or the caregiver being completely uninvolved during meals (uninvolved feeding/ laissez-faire), using feeding as a default first response to infant distress (feeding to soothe).
- **Parental feeding styles:** Overall attitude and emotional climate which characterize child eating occasions and reflect differences in parental demandingness and responsiveness. This includes authoritative, authoritarian, indulgent, and uninvolved feeding styles.
- **Food parenting/feeding practices:** Goal-oriented food-specific behaviors or actions carried out by parents (intentional or unintentional) that affect their child's attitudes, behaviors, or beliefs. This includes coercive control, autonomy support, and structure.

Committee discussion periods about the draft protocols took place at two junctures in the SC2 presentation. Topics discussed included potential expansion of one of the key outcomes for the pregnancy questions; consideration of additional confounders for certain questions (e.g., maternal weight status/obesity for questions that examine child patterns of growth, physical activity for questions about dietary patterns during pregnancy); consideration of other key factors (e.g., caregiver age and eating setting, which may not rise to the status of key confounders) when interpreting evidence; and extraction of certain variables from the measure of socioeconomic position for separate analysis.

Dr. Orlet Fisher concluded the SC2 presentation by noting that the next steps are to refine and implement the protocols for the SC's eight prioritized questions presented on May 10, 2023.

SUBCOMMITTEE 4: STRATEGIES FOR INDIVIDUALS AND FAMILIES RELATED TO DIET QUALITY AND WEIGHT MANAGEMENT

Dr. Cristina Palacios (SC4 Chair), presented the list of scientific questions that SC4 prioritized for review, noting that all questions to be examined are new (i.e., have not been examined by a prior Committee). The questions include examination of relationships between frequency of meals and/or snacking and selected health and dietary outcomes, and between portion size and selected health and dietary outcomes. Other strategies being explored are home food availability and cultural and traditional foods.

SC4 will use systematic reviews to examine its prioritized questions. Dr. Palacios and fellow SC4 member Dr. Cheryl Anderson presented details of the five draft protocols that have been developed for the SC's prioritized questions to date, including information about the population, outcomes, and key confounders and inclusion and exclusion criteria for intervention/exposure and study duration (intervention length and follow-up duration). Additional protocols are in progress and will be presented at a future meeting.

The protocols presented use standard NESR criteria for study design, study participants (only human studies), publication status (published in peer-reviewed journals), publication date, language (English), country (high or very high Human Development Index countries in the year that intervention/exposure data were collected), and health status of the study population (e.g., studies that exclusively enroll participants *not* diagnosed with a disease, as well as studies that enroll *some* participants with a disease or other relevant condition). Key definitions were discussed as follows:

- **Portion size:** Amount of food or beverage served at one time in one eating occasion.
- **Energy density:** Amount of calories (energy) in a given weight of food.

Committee discussion about the draft protocols covered topics that included availability of the HEI-2020 for use in analysis (unlikely based on timing); examination of time-restricted eating paradigms, such as intermittent fasting, and how they were not prioritized within numerous food-based strategies that could be examined; approaches for handling factors that could be potential effect modifiers; and approaches for interpreting evidence and potentially adjusting the level of confidence in that evidence depending on included key confounders.

Dr. Palacios concluded the SC4 presentation by noting that the next steps are to refine and implement the protocols for the SC's prioritized questions presented on May 10, 2023, and to continue discussions on home food availability and cultural and traditional foods.

SUBCOMMITTEE 3: FOOD PATTERN MODELING AND DATA ANALYSIS

Data Analysis

Dr. Heather Eicher-Miller (SC3 Co-Chair) presented the SC's planned approach to data analysis, which is collection of analyses that uses national data sets to describe the current health and dietary intakes of Americans. These data help make the *Dietary Guidelines* practical, relevant, and achievable. The four research questions to be answered by data analysis are geared at describing baseline information about dietary intakes and nutrition-related chronic conditions in the United States:

- *What are the current patterns of food and beverage intake?*
- *What are the current intakes of food groups, nutrients, and dietary components?*
- *Which nutrients and/or dietary components present a substantial public health concern because of underconsumption or overconsumption?*
- *What is the current prevalence of nutrition-related chronic health conditions?*

Additional data analysis questions may be added to complement the Committee's scientific review. The Committee will draw conclusions from federal, nationally representative sources. A primary source is the National Health and Nutrition Examination Survey (NHANES), specifically, the What We Eat in America (WWEIA) component which includes the USDA Food and Nutrient Database for Dietary Studies (FNDDS), USDA Food Pattern Equivalents Database (FPED), and WWEIA Food Categories. WWEIA, NHANES 2017-2018 provides the most complete data available to the 2025 Committee. The Committee will also scan for dietary intake data collected during the COVID-19 pandemic. Other data sources to be used for some nutrition-related chronic disease prevalence and biomarker data are the National Health Interview Study (NHIS), Surveillance, Epidemiology, and End Results (SEER), National Vital Statistics System (NVSS), and National Immunization Survey (NIS).

The Committee is presently summarizing existing data analyses and requesting additional analyses from federal data source experts. While data analysis is an important and critical complementary approach, the SC's present discussion focuses primarily on food pattern modeling, as it requires up-front decisions to keep the work moving forward. Future meetings will include more discussion on data analysis and a formal data analysis plan is forthcoming.

Food Pattern Modeling (FPM)

Dr. Chris Taylor (SC3 Co-Chair) discussed the prioritized scientific question for food pattern modeling. This prioritization was informed by goals for the Committee's food pattern modeling analyses to use enhanced food pattern modeling methodology to better reflect intake variability and the range of possible healthful diets based on the country's diverse populations. The question is:

Considering each life stage, should changes be made to the three USDA Dietary Patterns (Healthy U.S.-Style, Healthy Mediterranean-Style, and/or Healthy Vegetarian), and should additional Dietary Patterns be developed/proposed based on:

- *Findings from systematic reviews, data analysis, and/or food pattern modeling analyses; and/or*
- *Population norms (e.g., starchy vegetables are often consumed interchangeably with grains), preferences (e.g., emphasis on one staple grain versus another), or needs (e.g., lactose intolerance) of the diverse communities and cultural foodways within the U.S. population?*

Changes to dietary patterns may include increases or decreases in amounts of food groups/subgroups; recategorization of food groups/subgroups; and/or subsequent changes to calories available for other uses, including for added sugars.

The prioritized analysis topics for SC3 include 1) basis of dietary patterns and 2) application of the proposed dietary patterns. For the first, this includes 1a) assessing the contribution of foods and beverages with lower nutrient-density to nutrient profiles, and 1b) testing food group and subgroup quantity modifications. Currently, the range of food choices that contribute to the nutrient profiles that form the basis of the current USDA Dietary Patterns include foods and beverages that might be defined as those with lower nutrient density (e.g., desserts, candies), even though they are then represented using a nutrient-dense representative foods. Few lower nutrient density foods may contribute to food groups and subgroups, but also include added salt, added sugars, and/or saturated fat. FPM can be used to test implications of including, reducing, or excluding such foods and beverages. Protocol 1 for FPM will explore whether foods and beverages with lower nutrient density (i.e., those with added sugars, saturated fat, and sodium) should contribute to item clusters, representative foods, and therefore the nutrient profiles for each food group and subgroup used in modeling the USDA Dietary Patterns. Dr. Taylor clarified that this is not the same as making changes to what foods count toward intakes of currently defined food groups, nor will changes of that nature be made to the FNDDS or FPED databases.

When it comes to 1b, testing food group and subgroup quantity modifications, this question will be answered through a series of sub-analyses related to each food group and will consider variation in dietary intakes related to population or cultural norms, preferences, or needs of the diverse communities and cultural foodways within the U.S. population. SC3 prioritized seven additional protocols that could analyze such modifications:

- Protocol 2: Food group and subgroup quantity modifications: Identifying potential pattern flexibilities for individuals and groups to achieve healthy dietary patterns that reflect their norms, preferences, and needs.
- Protocol 3: Staple carbohydrate foods: Test flexibilities related to sources of carbohydrates with cultural relevance, given that a variety of different staple grains may comprise the majority of grains consumption for different U.S. cultural groups or individuals.
- Protocol 4: Protein foods: Test flexibility related to types (i.e., animal-based vs. plant-based) and amounts of protein food sources.
- Protocol 5: Dairy: Test low or no dairy flexibility and feasibility of dairy alternatives to, for example, determine if additional flexibilities (e.g., for beverages, additional options other than cow's milk or fortified soy beverage) can be provided to the range of options currently included in the Dairy and Fortified Soy Alternatives Food Group for individuals who cannot tolerate or choose not to consume dairy products.

- Protocol 6: Vegan: Assessment of nutrient adequacy to explore if it is possible to adapt the Healthy Vegetarian Dietary Pattern to make it vegan while supporting nutrient adequacy.
- Protocol 7: Low carbohydrate: Assessment of nutrient adequacy; Dr. Taylor noted that SC3 hopes that the forthcoming DRI review on digestible carbohydrates is available to provide definitions of low carbohydrate that can operationalize in a protocol, and then test for implications on resulting nutrient intake.

SC3 also considered a protocol to assess ultra-processed foods, but determined that this is not currently feasible due to lack of a widely operational definition that could be used for a food composition profile, as well as limited federal data available to capture processing in national nutrient datasets (e.g., inability to distinguish between foods that may have the same ingredients but could be homemade vs. industrially produced).

The second prioritized analysis topic for FPM—application of the proposed dietary patterns—will include 2a) accommodating foods and beverages with lower nutrient density and 2b) simulated diets.

- For 2a, Protocol 8 will assess what quantities of foods and beverages lower in nutrient density (e.g., cookies, sugar-sweetened beverages) can be accommodated in the USDA Dietary Patterns while meeting nutrient recommendations within calorie levels. Understanding how these foods may or may not fit within a healthy dietary pattern is proposed to support the development of clear recommendations that are practical, relevant, and achievable.
- For 2b, Protocol 9 will assess if simulated diets that meet the updated USDA Dietary Patterns and reflect variation in dietary intakes achieve nutrient adequacy.

After Dr. Taylor’s overview of the FPM protocols, a brief committee discussion raised questions about ensuring that a variety of cultural approaches are tested for staple carbohydrate foods as well as exploring affordability of and access to healthy foods in modeling and simulation approaches.

Next, Dr. Taylor elaborated on draft Protocol 1: Should foods and beverages with lower nutrient density (i.e., those with added sugars, saturated fat, and sodium) contribute to item clusters, representative foods, and therefore the nutrient profiles for each food group and subgroup used in modeling the USDA Dietary Patterns? This question will assess the methods used to develop nutrient profiles for each food group/subgroup that is used to develop a dietary pattern. In answering this question, the Committee will consider if the existing approach or a revised approach to calculating nutrient profiles will be used for subsequent food pattern modeling analyses. Dr. Taylor shared definitions for nutrient profiles, item clusters, and nutrient-dense representative foods, then walked the Committee through an example to explain how a nutrient profile is developed for a given food group/subgroup. He also described an example of how a food such as lentil soup is disaggregated into ingredients that contribute to food groups/subgroups.

Dr. Taylor then reviewed the analytic framework for Protocol 1, including a description of the population (U.S. individuals 1 year of age and older, which will consider profiles specific to ages 12-23 months and 2+ years); an overview of FPM methodology (the focus will be on determining the amounts of energy and nutrients that would be provided by consuming various foods within each food group or subgroup); and data sources for dietary intake, food composition, nutritional goals, and energy levels. He also shared the primary analytic framework’s proposed protocol analyses, and then described the SC’s revised approach to the analytic plan and proposed protocol analyses.

Dr. Taylor concluded the SC3 presentation by noting that the next steps are to develop Protocols 2 through 9 and refine and implement Protocol 1.

Committee discussion about the draft protocols covered topics that included use of the Recommended Dietary Allowances (RDA) to operationalize nutrient adequacy; further discussion of pros and cons of accommodating foods with lower nutrient density in the USDA Dietary Patterns; attention to ensuring that dietary intakes of sub-populations are considered in analyses and discussions of USDA Dietary Patterns; construction of simulated diets to properly reflect cultural foods; and potential examination of nutrient profiles by life stage and by other NHANES sub-populations.

COMMITTEE DISCUSSION

Dr. Sarah Booth (Chair) opened the floor to the Committee and invited each member to provide a comment or impression from the meeting. Themes from the comments included reflection on the vast number of topics that the Committee is examining, respect for the breadth of expertise and wisdom represented among the Committee and federal staff, the depth of meticulous WG/SC work done to date, excitement about the expanded focus on health equity as well as the opportunity to examine new topics such as the “how” of feeding infants and toddlers, the challenge of addressing conceptually compelling influences on behaviors/outcomes that may not currently have evidence to designate them as confounders, and the promise of simulated dietary pattern modeling.

NEXT STEPS AND ADJOURNMENT

Ms. Janet de Jesus congratulated the Committee for completing Meeting 2 and commended its substantial efforts to date. She highlighted the next steps, which are to post draft protocols on DietaryGuidelines.gov and NESR.usda.gov (with the note that public comments are appreciated by the end of June), continue SC/WG work to conduct evidence reviews, and planning for Meeting 3, which will occur on September 13, 2023 and include an opportunity for the public to provide oral comments to the Committee. She thanked the Committee and federal staff involved in the meeting and adjourned the meeting at 2:51pm.