

PART A. EXECUTIVE SUMMARY

The Departments of Agriculture and of Health and Human Services established the 2020 Dietary Guidelines Advisory Committee for the single, time-limited task of examining the evidence on specific nutrition and public health topics and providing independent, science-based advice to the Federal government as the Departments develop the next edition of the *Dietary Guidelines for Americans*. The 2020 Committee used 3 approaches to examine the evidence: data analysis, food pattern modeling, and NESR systematic reviews. Each of these approaches has its own rigorous, protocol-driven methodology, and played a unique, complementary role in examining the science. For the first time, the USDA and HHS identified topics and scientific questions to be examined by the 2020 Committee before establishing the Committee. The type of information the Committee needed to answer each scientific question determined which approach they would use to review the evidence (see **Part C. Methodology** for more information on the Committee's evidence review process).

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 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.
- Food insecurity and lack of access to affordable healthy food is a persistent problem. In 2018, more than 37 million people, including 6 million children, lived in households that were uncertain of having, or unable to acquire, enough food to meet their needs. Certain populations are disproportionately affected, including low-income, Black non-Hispanic, and Hispanic households, households with young children, and households headed by a single woman or man.

The 2020 Committee's report responds to this backdrop with 2 distinguishing features. The first feature is the lifespan approach the Committee took in its review of evidence. This report continues the traditional emphasis on individuals ages 2 years and older and, for the first time, expands upon it to reflect the growing body of evidence about appropriate nutrition during the earliest stages of life. The Committee reviewed the period from birth to age 24 months and also conducted a review of diet and health issues in pregnancy and lactation. The findings confirm that a healthy diet during these life stages is essential to support healthy growth and development during infancy and childhood and to promote health and prevent chronic disease through childhood, adolescence, and adulthood. The Committee's review and conclusions will enable USDA and HHS to take a full lifespan approach in the *2020-2025 Dietary Guidelines for Americans*.

The second feature is the Committee's focus on dietary patterns, which began with the 2010 Committee and was continued by the 2015 Committee. The 2020 Committee built on this work and has made dietary patterns a centerpiece of its report. This emphasis acknowledges the reality that people do not consume nutrients or foods in isolation but in various combinations over time. It also reflects growing evidence that components of a dietary pattern may have interactive, synergistic, and potentially cumulative relationships that can predict overall health status and disease risk more fully than can individual foods or nutrients.

The remainder of this Executive Summary provides brief summaries of the Committee's topic-specific evidence reviews. Each of these reviews also generated recommendations for research to fill gaps in the current evidence (see **Part E. Future Directions** for a compilation of these recommendations). The Committee's report also includes a chapter, summarized here, that integrates its findings and conclusions on a lifespan approach to healthy dietary patterns.

CURRENT DIETARY INTAKES THROUGH THE LIFE COURSE

Diet is a modifiable factor that is critically relevant to the primary and secondary prevention of most non-communicable diseases and the leading causes of disability and death affecting Americans. Consistent and well-conducted Federal monitoring and surveillance have shown that most Americans have 1 or more chronic diet-related health conditions, including overweight and obesity, heart disease, stroke, type 2 diabetes, hypertension, liver disease, certain types of cancer, dental caries, and/or metabolic syndrome. The Committee's review of current dietary intakes shows that the American dietary landscape has not changed appreciably over time. Across the lifespan, the typical diet Americans consume result in overconsumption of total

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energy, saturated fats, sodium, added sugars, and for some consumers, alcoholic beverages. Intakes of fruits, vegetables, and whole grains are lower than current recommendations. After early childhood, dairy intakes decrease over the life course, except for a small uptick in older adults. Though the diets of women who are pregnant or lactating are higher in key food groups, they still fall below recommendations. These trends in food intake have ramifications for nutrient intakes and status throughout life. For Americans ages 1 year and older, dietary intake distributions, along with biological endpoints, clinical indicators, and prevalence of health conditions measured through validated surrogate markers, suggest that current underconsumption of vitamin D, calcium, dietary fiber, and potassium is of public health concern. Similarly, patterns of food group intakes across the life course contribute to higher than recommended intakes of food components of public health concern, such as added sugars, sodium, and saturated fat.

Each individual life stage holds unique implications for dietary intake and the risk of disease. In terms of life stages, while young infants appear to be generally well-nourished, some gaps exist. The risk of chronic disease begins early in life, with important health consequences for the fetus based on the dietary intake of the mother and subsequent feeding behaviors in infancy and early childhood. Early life nutritional exposures have emerged as an etiological risk factor associated with later-life chronic disease risk. Diet quality is higher in young children but tends to decline with age throughout childhood and into adolescence. The poor diets of adolescent females are quite concerning, both at the individual level and for the potential intergenerational impacts. The nutritional quality of the diet improves somewhat for older adults, though several specific nutrient concerns remain.

Within each life stage, opportunities exist to provide specific advice to individuals about food components that provide key nutrients at that life stage and for ways they can make healthy food choices. Opportunities also exist to think about healthy food intake patterns that should be carried forward into the next stage of life. This approach recognizes that although nutrient needs vary over the lifespan, early food preferences influence later food choices.

DIET AND HEALTH RELATIONSHIPS: PREGNANCY AND LACTATION

Pregnancy and lactation are a crucial period of life for mothers and infants. Although this time can be viewed as discreet stages in the lifespan with distinct nutritional needs, their outcomes are influenced by the woman's health status before pregnancy and they can, in turn,

influence her and her child's future health trajectory. These cross-cutting influences highlight the potential for long-term benefits to be gained from improving nutrition during pregnancy and lactation.

Pregnancy

The Committee examined relationships between aspects of maternal diet during pregnancy and infant perinatal outcomes. It also examined longer-term child outcomes, including neurodevelopment and the risk of food allergies and atopic allergic diseases. Evidence suggests that consuming foods within healthy dietary patterns before and/or during pregnancy may modestly reduce the risk of gestational diabetes, hypertensive disorders of pregnancy, and preterm birth. The components of these beneficial dietary patterns are the same as the dietary components associated with overall chronic disease risk reduction. The Committee's reviews also suggested that seafood intake before pregnancy as part of a healthy dietary pattern, particularly intake of fish high in omega-3 fatty acids, may be related to reduced risk of gestational diabetes and hypertensive disorders, and that consumption during pregnancy may be related to reduced risk of hypertensive disorders and preterm birth and better cognitive development and language and communication development in children. Therefore, the Committee concurred with existing recommendations that women who are pregnant should consume at least 8 and up to 12 ounces of a variety of seafood per week from choices that are lower in methylmercury and higher in omega-3 fatty acids. Consumption of common allergenic foods, such as eggs and cow milk, during pregnancy did not appear to be associated with an increased risk of food allergies, asthma, and related atopic disease outcomes in the child, nor is the restriction of these foods associated with a decreased risk of these conditions. Folic acid supplementation is associated with better maternal folate status during pregnancy. It also may reduce the risk of hypertensive disorders among women at high-risk or with a previous history of these disorders. Limited evidence suggests that omega-3 fatty acid supplementation during pregnancy can result in favorable cognitive development in children.

Lactation

Nutrient requirements during lactation are intended to support the nutritional status of the mother and to provide the additional amounts of energy and nutrients associated with milk synthesis and the secretion of nutrients into human milk. Due to a lack of evidence, the Committee was unable to draw conclusions regarding maternal dietary patterns or frequency of

eating during lactation and postpartum weight loss. However, the Committee's review suggested that seafood choices are important components of a healthy dietary pattern for women. Therefore, the Committee concurred with existing recommendations that women who are lactating should continue to consume seafood at the same amounts recommended during pregnancy. Because of insufficient evidence, the Committee was unable to draw conclusions about relationships between dietary patterns during lactation and infant developmental outcomes, between supplementation with omega-3 fatty acids and infant developmental outcomes, or between dietary patterns or consumption or avoidance of specific foods and food allergy, atopic dermatitis, allergic rhinitis or asthma. Moderate evidence did indicate that in women who are lactating, consuming folic acid supplements resulted in higher serum and red blood cell folate concentrations, but no difference in human milk folate concentrations, compared to non-supplement users. Despite the importance of the topics examined for the long-term health of the child, the available evidence for many questions was insufficient to form conclusion statements, highlighting the critical need for additional research.

DIET AND HEALTH RELATIONSHIPS: BIRTH TO AGE 24 MONTHS

Nutritional exposures during the first 1,000 days of life not only contribute to long-term health but also help shape taste preferences and food choices. Human milk or infant formula are the young infant's primary sustenance until about age 6 months, when the introduction of complementary foods and beverages (CFB) is recommended. The complementary feeding period typically continues to age 24 months as the child transitions fully to family foods. The Committee examined relationships between nutrition and health outcomes for several topics important to this life stage, including exclusive human milk and/or infant formula, CFB, and dietary supplementation with iron or vitamin D.

Exclusive Human Milk and/or Infant Formula Feeding

The Committee examined how various exposures to human milk and/or infant formula are linked to selected outcomes in offspring. The strongest evidence found was that ever being breastfed may reduce the risk of overweight or obesity, type 1 diabetes, and asthma, compared to never being breastfed. Evidence also suggested that a longer duration of any breastfeeding is associated with lower risk of type 1 diabetes and asthma, although the optimal duration of breastfeeding with respect to these outcomes is not well understood. Exclusivity of

breastfeeding also was found to be associated with a lower risk of type 1 diabetes. This evidence supports existing American Academy of Pediatrics and World Health Organization recommendations for breastfeeding in the United States and globally. The Committee also investigated associations between infant milk-feeding practices and nutrient status of the infant, including for iron, zinc, iodine, vitamin B₁₂, vitamin D, and fatty acids. For most of these questions, the evidence was scant or nonexistent, which prevented conclusions from being drawn. However, evidence does suggest that human milk feeding may be related to infant fatty acid status, depending on maternal diet. The Committee therefore supports recommendations for women who are lactating to consume food sources of long-chain polyunsaturated fatty acids, such as fish. Despite the importance of the topics examined for the long-term health of the child, the available evidence for many questions was insufficient to form conclusion statements, highlighting the critical need for additional research.

Complementary Foods and Beverages

The Committee examined the relationship of the timing of introduction of, and types of, CFB on the child's nutritional status, growth and body composition, neurocognitive development, bone health, and risk of food allergies and atopic diseases. The reviews confirmed existing guidelines that CFBs should not be introduced to infants before age 4 months, and the Committee found that introduction at age 4 to 5 months, as compared to 6 months, does not offer long-term advantages or disadvantages with respect to the outcomes reviewed. The reviews also support guidance to provide foods that are rich in iron and zinc during the second 6 months of life among breastfed infants, and the need to provide CFBs that contain adequate amounts of polyunsaturated fatty acids. The Committee's review indicated that introducing peanut and egg, in an age appropriate form, in the first year of life (after age 4 months) may reduce the risk of food allergy to these foods. The evidence for such protective effects is less clear for other types of foods, but the Committee found no evidence that avoiding such foods in the first year of life is beneficial with regard to preventing food allergies or other atopic diseases. Avoiding consumption of sugar-sweetened beverages (SSB) by children younger than age 2 years is important for several reasons. First, the energy contributed by such beverages leaves less "room" for energy from nutritious CFBs, leading to potential nutrient gaps. Second, limited evidence suggests that SSB consumption by infants and young children is related to subsequent risk of child overweight. Lastly, intake of SSB in early life may set the stage for greater intake of SSB later in life, with potentially adverse health consequences.

Dietary Supplements

The Committee's examination of evidence on the relationships of supplemental iron to growth, size, and body composition showed no positive effects, and possibly negative effects, on growth when iron supplements were given to breastfed infants younger than age 9 months, compared with infants not given iron or given a placebo. However, for iron-deficient children, providing sufficient iron (from foods, supplements, or fortified foods) is important for reducing iron-deficiency anemia and its consequences, including impaired neurobehavioral development. The Committee's review of vitamin D and bone health in infancy or early childhood showed little to no statistically significant differences in bone health indicators based on doses of vitamin D supplementation greater than 400 IU. Thus, at this time, the existing body of evidence does not provide a basis for recommending vitamin D supplementation above 400 IU per day during infancy (the current American Academy of Pediatrics recommendation).

USDA Food Patterns for Children Younger than Age 24 Months

Establishing healthy dietary patterns in early childhood is crucial to support immediate needs for growth and development and to promote lifelong health. In keeping with the Departments' mandate to include dietary recommendations for infants and toddlers in the *2020-2025 Dietary Guidelines for Americans*, the 2020 Committee explored the possibility of creating USDA Food Patterns for the 6 month to 24 month age range. Using the USDA Food Patterns for individuals ages 2 years and older as a starting point, the Committee modeled several scenarios that incorporated the potential contribution from human milk or infant formula and reflected the total energy needs at ages 6 to 12 months and 12 to 24 months. The Committee was not able to establish a recommended food pattern for infants ages 6 to 12 months but was able to develop potential combinations of CFB that come close to meeting all nutrient needs. The Committee encourages further work to explore options for meeting all nutrient recommendations during that age range. For toddlers ages 12 to 24 months who are fed neither human milk nor infant formula, the Committee was able to establish a recommended Food Pattern. The Pattern allows for a variety of nutrient-rich animal-source foods, including meat, poultry, seafood, eggs, and dairy products, as well as nuts and seeds, fruits, vegetables, and grain products, prepared in ways that are developmentally appropriate for this age. Key aspects to emphasize include choosing potassium-rich fruits and vegetables, prioritizing seafood, making whole grains the predominant type of grains offered, and choosing oils over solid fats. A Pattern also was

established for toddlers ages 12 to 24 months who are fed lacto-ovo vegetarian diets and neither human milk nor infant formula.

Because nutrient needs are high relative to energy requirements for children ages 6 to 24 months, and the amounts of CFB that can be consumed are relatively low, especially at the younger ages, it was challenging to develop these Food Patterns. The modeling exercises revealed the importance of prioritizing nutrient-rich food groups and making careful food choices within food groups. Like the USDA Food Patterns for those ages 2 years and older, a strength of the Patterns for younger children is that they provide examples of amounts of food groups and subgroups that can be consumed, but do not dictate specific types of foods. This gives families substantial flexibility to accommodate cultural preferences and cost considerations, and provides opportunities to introduce children to a wide variety of healthy foods that are important in shaping healthy dietary patterns.

DIET AND HEALTH RELATIONSHIPS: INDIVIDUALS AGES 2 YEARS AND OLDER

The Committee examined a number of topics related to dietary intakes by those ages 2 years and older, including the relationship between overall dietary patterns and 8 broad health outcomes and the relationships of specific aspects of “what” and “how” people eat to various health outcomes.

Dietary Patterns

People eat foods and drink beverages for many reasons, including, but certainly not limited to, nourishment. The quantities, proportions, variety or combination of different foods, drinks, and nutrients in diets and the frequency with which they are habitually consumed, constitute dietary patterns. The Committee found consistent evidence that certain dietary pattern components are associated with beneficial outcomes for all-cause mortality, CVD, overweight and obesity, type 2 diabetes, bone health, cancer (breast, colorectal, and lung), and neurocognitive health. 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, the Committee found that negative (detrimental) health outcomes were

associated with dietary patterns characterized by higher intake of red and processed meats, sugar-sweetened foods and beverages, and refined grains.

Collectively, these observations have major implications for recommending dietary patterns to the U.S. population. The healthy patterns the Committee examined in its review comprised various combinations of foods and were identified with many different names (e.g., DASH, Mediterranean). This suggests that a healthy diet that promotes optimum growth and development while minimizing risk factors for chronic diseases can be created and tailored to suit cost considerations and a wide variety of personal and cultural preferences.

Dietary Fats and Seafood

Fats are an important component of the American diet, contributing about one-third of the total calories consumed after infancy. The types and food sources of fats consumed have distinct metabolic and health effects. The Committee's review found that reducing saturated fat intake by replacing it with unsaturated fats, particularly polyunsaturated fat, lowers the incidence of CVD in adults. Replacing saturated with unsaturated fats in the diet also reduces serum total and low-density lipoprotein cholesterol in all adults and some children, especially boys. However, the benefits of replacing saturated fat with carbohydrates are less clear. In addition, because dietary cholesterol is found only in animal-source foods that are typically also sources of saturated fat, the independent effects of dietary cholesterol on CVD are difficult to assess. The recommended shift from saturated to unsaturated fats occurs best within the context of a healthy dietary pattern consisting of higher intakes of vegetables, fruits, legumes, whole grains, nuts and seeds, with some vegetable oils, low-fat dairy, lean meat and poultry, and fatty fish and lower intakes of red and processed meats, sugar-sweetened foods and drinks, and refined grains.

The Committee also conducted a review of relationships between seafood consumption during childhood and adolescence and risk of CVD and neurocognitive outcomes during the lifespan. Available evidence was insufficient to make a conclusion about seafood intakes during these life stages and risk of later CVD or neurocognitive outcomes. However, no adverse associations were reported.

Beverages

Beverages are broadly defined as any type of energy or non-energy-yielding drink. They contribute substantially to the dietary patterns of Americans in both favorable and adverse ways.

The Committee reviewed available data on the relationships between beverage consumption and achieving nutrient and food group recommendations. It also examined evidence on the relationship between beverage consumption and growth, size, body composition, and risk of overweight and obesity for children and adults. All beverages contribute to hydration needs, and many beverages, such as milk and 100% juice, can help people attain recommended nutrient intake goals. Other beverages, such as SSB, provide energy but contribute very little toward meeting nutrient and food group recommendations. Sweetened beverages, not including coffee and tea with added sugar, account for approximately one-third of total beverage consumption and contribute approximately 30 percent, 50 percent, and 60 percent of added sugars to the diet of young children, adolescents, and adults, respectively. Among the beverages examined, only SSB intake was associated with adiposity, and this was true for both children and adults. Because of their low nutrient to energy content ratio and the high prevalence of overweight and obesity in the population, it is important to continue encouraging only limited intake of SSB. Limited evidence suggests that low- or no-calorie sweetened beverage consumption is associated with reduced adiposity in adults. The evidence was insufficient to evaluate the effects of SSB compared to low- or no-calorie sweetened beverage in children.

Alcoholic Beverages

The majority of U.S. adults consume alcoholic beverages, though not consuming alcohol also is a preference for many Americans. Alcohol consumption and binge drinking are increasing in the United States, and excessive alcohol consumption is a leading behavioral risk factor for a variety of morbidity and mortality outcomes, social harms, and economic costs. Aside from energy, alcohol has little nutritional value. Binge drinking is consistently associated with increased risk compared to not binge drinking, and more frequent binge drinking is associated with increased risk compared to less binge drinking. Similarly, among those who drink, consuming higher average amounts of alcohol is associated with increased mortality risk compared to drinking lower average amounts. The Committee concurred with the recommendation of the *2015-2020 Dietary Guidelines for Americans* that those who do not drink should not begin to drink because they believe alcohol would make them healthier. Although alcohol can be consumed at low levels with relatively low risk, for those who choose to consume alcohol, evidence points to a general rule that drinking less is better for health than drinking more. Therefore, the focus should remain on reducing consumption among those who drink, particularly among those who drink in ways that increase the risk of harms. The Committee concluded that no evidence exists to relax current *Dietary Guidelines for Americans*

recommendations, and there is evidence to tighten them for men such that recommended limits for both men and women who drink would be 1 drink per day on days when alcohol is consumed. As with previous editions of the *Dietary Guidelines*, recommended limits pertain to days on which alcohol is consumed.

Added Sugars

As part of its focus on healthy dietary patterns that include nutrient-dense foods consumed at appropriate energy levels, the *2015-2020 Dietary Guidelines for Americans* recommended that Americans consume less than 10 percent of energy from added sugars. The 2020 Committee revisited this topic, with an examination of the relationship between added sugars consumption and risk of CVD. It also examined the impact of added sugars on achieving nutrient recommendations and considered how much added sugars could be accommodated in a healthy dietary pattern. For Americans ages 1 year and older, average consumption of added sugars represent 13 percent of daily energy intake, meaning that most Americans consume diets that exceed current *Dietary Guidelines* recommendations. Nearly 70 percent of added sugars intake comes from 5 food categories: sweetened beverages, desserts and sweet snacks, coffee and tea (with their additions), candy and sugars, and breakfast cereals and bars. Evidence suggests that adverse effects of added sugars, particularly from SSB, may contribute to unhealthy weight gain and obesity-related health outcomes. Reducing the amount of added sugars in the diet, either through changes in consumer behavior or in how food is produced and sold, is an achievable objective that could improve population health. After considering the scientific evidence for the potential health impacts of added sugars intake, along with findings from model-based estimations of energy available in the dietary pattern after meeting nutrient requirements, the Committee suggests that less than 6 percent of energy from added sugars is more consistent with a dietary pattern that is nutritionally adequate while avoiding excess energy intake from added sugars than is a pattern with less than 10 percent energy from added sugars.

Frequency of Eating

Eating is a behavior that provides humans with nutrients for growth, function, and body maintenance. Eating behaviors can support or weaken health and strongly influence the quality and length of life. A person's daily nutrient intake, and overall nutritional status, are determined by a complex interplay of 3 factors surrounding food choice: type, amount, and frequency. The

Committee examined national cross-sectional data to learn about the state of eating frequency in the United States and conducted a systematic review of studies to examine the relationships between eating frequency and growth, body size and composition, overweight and obesity, CVD, type 2 diabetes, and all-cause mortality. Although the Committee was unable to find adequate evidence to answer the questions on the relationship between eating frequency and health outcomes, its analysis of eating frequency in the United States revealed a wide variety of eating frequency patterns that varied by socioeconomic and demographic factors. Diet quality was higher when self-reported meal intake increased from 2 meals per day to 3, whereas late-night eating often contained food components recommended to be consumed in moderation. Despite the importance of this topic, the available evidence for many questions was insufficient to form conclusion statements, highlighting the critical need for additional research.

USDA Food Patterns for Individuals Ages 2 Years and Older

The USDA Food Patterns represent the types and amounts of foods groups and subgroups that aim to provide sufficient nutrients or food components to meet Dietary Reference Intakes and *Dietary Guidelines for Americans* recommendations. The Food Patterns are updated every 5 years and are presented to the Committee for its assessment of how well the Patterns align with the most current evidence on diet, health, and nutrient adequacy. The 3 current USDA Food Patterns are the Healthy U.S.-Style Pattern, the Healthy Vegetarian Pattern, and the Healthy Mediterranean-Style Pattern. Based on its review of the evidence, the Committee confirmed that these Food Patterns represent healthy dietary patterns in that they provide the majority of energy from plant-based foods, such as vegetables, fruits, legumes, whole grains, nuts and seeds; provide protein and fats from nutrient-rich food sources; and limit intakes of added sugars, solid fats, and sodium. The Committee noted that the types of foods that individuals should eat are remarkably consistent and that these Patterns can be applied across life stages, even taking into account specific nutrient needs at particular life stages. Because the risk of chronic disease begins early in life, taking steps to apply the best understanding of healthy dietary intakes in the earliest days of life can support lifelong chronic disease risk reduction and improved quality of life.

INTEGRATING THE EVIDENCE

The research the Committee reviewed supports a lifespan approach because it reinforces the importance of implementing dietary patterns that are most associated with nutrition adequacy, energy balance, and reduced risk of diet-related chronic health conditions. Achieving goals at each life stage not only supports health at that point in time, but also provides a sound basis for transitioning to the next life stage from a position of nutritional advantage. Integrating the evidence reviewed for the topics addressed in this report, the 2020 Committee concludes that every life stage provides an opportunity to make food choices that promote health and well-being, achieve and maintain appropriate weight status, and reduce risk of diet-related chronic disease.

In summarizing the findings of the dietary patterns reviews, the Committee also noted that a powerful aspect of using a dietary patterns approach is that it enables multiple adaptations to fit cultural, personal, and individual needs and preferences in food choices. Though the Committee did not review questions on topics such as the food environment, the overall food system, or strategies to support behavior change, it emphasized the importance of these topics and strongly encourages the Secretaries of USDA and HHS to examine these topics to support improved dietary intake among Americans. The Committee also identified several resource needs for the next Dietary Guidelines Advisory Committee (such as updates to the Dietary Reference Intakes for macronutrients, for birth to age 24 months, and for pregnancy and lactation), and pointed to the need for additional research on the birth to age 24 months life stage. Finally, the Committee suggested ways to incorporate its major findings into updates of the *2015-2020 Dietary Guidelines for Americans* overarching principals for achieving an overall healthy dietary pattern.