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Eve Essery Stoody, PhD
Designated Federal Officer
Co-Executive Secretary
Center for Nutrition Policy and Promotion
Food and Nutrition Service
Food, Nutrition, and Consumer Services
U.S. Department of Agriculture

David Klurfeld, PhD
Coordinator of Peer Review of NESR Systematic Reviews
Co-Executive Secretary
Agricultural Research Service
Research, Education, and Economics
U.S. Department of Agriculture

Janet de Jesus, MS, RD
Division of Prevention Science
Office of Disease Prevention and Health Promotion
U.S. Department of Health and Human Services

Richard Olson, MD, MPH
Division of Prevention Science
Office of Disease Prevention and Health Promotion
U.S. Department of Health and Human Services

RE: American Cancer Society (ACS) and American Cancer Society Cancer Action Network (ACS CAN) Comments on the Scientific Report of the 2020 Dietary Guidelines Advisory Committee

Dear Dr. Stoody, Dr. Klurfeld, Ms. de Jesus, and Dr. Olson:

The American Cancer Society (ACS) is a global grassroots force of 1.5 million volunteers dedicated to saving lives, celebrating lives, and leading the fight for a world without cancer. From breakthrough research, to free lodging near treatment, a 24/7/365 live helpline, free rides to treatment, and

convening powerful activists to create awareness and impact, the Society is the only organization attacking cancer from every angle.

The American Cancer Society Cancer Action Network (ACS CAN) is making cancer a top priority for public officials and candidates at the federal, state, and local levels. ACS CAN empowers advocates across the country to make their voices heard and influence evidence-based public policy change as well as legislative and regulatory solutions that will reduce the cancer burden. As the American Cancer Society's nonprofit, nonpartisan advocacy affiliate, ACS CAN is critical to the fight for a world without cancer.

The ACS and ACS CAN appreciate the opportunity to comment on the Scientific Report of the 2020 Dietary Guidelines Advisory Committee (hereon, the Report). Overall, we strongly support the conclusions and recommendations in the report. The following comments provide additional information on diet's role in cancer and specific recommendations for those tasked with finalizing the Dietary Guidelines for Americans (DGA).

The Cancer Connection

Cancer is the second leading cause of death, exceeded only by heart disease, in both men and women in the United States.[1] The burden of cancer extends beyond mortality. Individuals who are affected by a diagnosis of cancer experience physical suffering, distress, and diminished quality of life associated with disease-related symptoms, diagnostic procedures, cancer therapies, and long-term/late adverse effects of treatment. Moreover, quality of life can also be substantially reduced for family, caregivers, and friends of patients with cancer.

Body weight, unhealthful diet, alcohol consumption and physical inactivity account for at least 18.2% of cancer cases and 15.8% of cancer deaths in the US, the second highest percentages for any risk factor (after cigarette smoking) in both men and women.[2] Excess body fatness causes cancers of the female breast (postmenopausal), endometrium, kidney (renal cell), esophagus (adenocarcinoma), colon, rectum, gastric cardia, liver, gallbladder, pancreas, ovary, thyroid, myeloma and meningioma.[3,4] There is some evidence that excess body fatness probably increases the risk of advanced, high-grade, or fatal prostate cancer and cancers of the oral cavity, pharynx, and larynx.[5] There is growing evidence that adult weight gain also is associated with the risk of several types of cancer, including cancers of the gallbladder, thyroid, pancreas, postmenopausal ovary, postmenopausal endometrium, and

[1] American Cancer Society. Cancer Facts & Figures 2020. Atlanta: American Cancer Society; 2020

[2] Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin. 2018;68: 31-54.

[3] International Agency for Research on Cancer. IARC Handbooks of Cancer Prevention: Weight Control and Physical Activity. Vol 6. World Health Organization/ IARC; 2002.

[4] Lauby-Secretan B, Scoccianti C, Loomis D, et al. Body fatness and cancer—viewpoint of the IARC Working Group. N Engl J Med. 2016;375:794-798.

[5] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018. Accessed July 21, 2019. wcrf.org/dietandcancer

postmenopausal breast, as well as multiple myeloma.[6,7,8,9,10] Sustained weight loss, even modest amounts, is associated with lower breast cancer risk among women over 50 years of age.[11]

A recent study reported that incidence rates increased for multiple obesity-related cancers (colorectum, corpus uteri, gallbladder, kidney, multiple myeloma, and pancreas) from 1995 to 2014 in the US, particularly among young adults and in successively younger birth cohorts in contrast to the declining or stabilizing rates for smoking-related and HIV infection-related cancers.[12] This finding suggests that the future burden of obesity-related cancers might be exacerbated as younger cohorts age, potentially halting or reversing the progress achieved in reducing cancer mortality over the past several decades.

This is an extremely disturbing finding given that the obesity epidemic is now well-recognized in the US. In 2017-2018, 42.4% of American adults had obesity, including 41.9% of women and 43.0% of men.[13] The prevalence of obesity varies considerably among racial/ethnic groups, being lowest among non-Hispanic Asian adults (17.4%), followed by non-Hispanic white (42.2%), Hispanic (44.8%), and non-Hispanic black (49.6%) adults. Moreover in 2015-2016, 18.5% of youth aged 2 to 19 years had obesity affecting 13.7 million children. By age group, 20.6% of adolescents aged 12 to 19 years, 18.4% of children aged 6 to 11 years, and 13.9% of children aged 2 to 5 years had obesity.[14]

In order to reduce cancer incidence, suffering and death, weight, diet, alcohol consumption and physical activity must be addressed. The ACS recently published an updated *Guideline for Diet and Physical Activity for Cancer Prevention*.[15] The guideline provides guidance, support, and evidenced-based strategies for individuals and populations to reduce cancer risk. Research has shown that people who follow the majority of the diet, physical activity, weight, and alcohol recommendations in the ACS

[6] Campbell PT, Newton CC, Kitahara CM, et al. Body size indicators and risk of gallbladder cancer: a pooled analysis of individual-level data from 19 prospective cohort studies. Cancer Epidemiol Biomarkers Prev. 2017;26:597-606.
[7] Kitahara CM, McCullough ML, Franceschi S, et al. Anthropometric factors and thyroid cancer risk by histological subtype: pooled analysis of 22 prospective studies. Thyroid. 2016;26:306-318.
[8] Genkinger JM, Kitahara CM, Bernstein L, et al. Central adiposity, obesity during early adulthood, and pancreatic cancer mortality in a pooled analysis of cohort studies. Ann Oncol. 2015;26: 2257-2266.
[9] Keum N, Greenwood DC, Lee DH, et al. Adult weight gain and adiposity-related cancers: a dose-response meta-analysis of prospective observational studies. J Natl Cancer Inst. 2015;107:djv088.
[10] Teras LR, Kitahara CM, Birmann BM, et al. Body size and multiple myeloma mortality: a pooled analysis of 20 prospective studies. Br J Haematol. 2014;166: 667-676.
[11] Teras LR, Patel AV, Wang M, et al. Sustained weight loss and risk of breast cancer in women >/=50 years: a pooled analysis of prospective data. J Natl Cancer Inst 2019.
[12] Sung H, Siegel RL, Rosenberg PS, Jemal A. Emerging cancer trends among young adults in the USA: analysis of a population-based cancer registry. Lancet Public Health. 2019;4:e137-e147.
[13] Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity and severe obesity among adults: United States, 2017–2018. NCHS Data Brief, no 360. Hyattsville, MD: National Center for Health Statistics. 2020.
[14] Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity among adults and youth: United States, 2015–2016. NCHS data brief, no 288. Hyattsville, MD: National Center for Health Statistics. 2017.
[15] Rock, CL et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020; 0:1-27.

Guidelines are less likely to develop or die of cancer,[16, 17] cardiovascular disease, or any cause compared with people who follow very few, if any, of the ACS Guidelines.[18] Recognizing the important role a person's community plays in influencing their food, beverage, and other lifestyle choices, the ACS guideline – like the current U.S. Dietary Guidelines – includes recommendations for communities to facilitate and promote healthy individual behaviors.

Like the ACS guideline, the DGA must be an evidence-based path forward for individuals, families, schools, communities, health care professionals and policymakers to achieve and protect health through diet.

Healthy Dietary Patterns

We support the DGAC's continued emphasis on following a healthy dietary pattern and its emphasis on following a healthy diet throughout the lifespan as the foundation of advice in the 2020-2025 DGA.

Poor diet is estimated to be responsible for 4.2-5.2% of cancer cases per year,[19,20] and evidence on the relationship of overall dietary patterns and cancer risk has grown considerably over the past two decades.[21,22,23] The 2020 DGAC's updated systematic review incorporates newer literature on dietary patterns which continues to demonstrate a role of healthy dietary patterns in lowering risk of colorectal and postmenopausal breast cancer (Moderate evidence). For breast cancer, dietary patterns rich in vegetables, fruits, and whole grains, and lower in animal-source foods and refined carbohydrates are associated with lower risk. Similarly, the dietary patterns associated with lower colorectal cancer risk are rich in vegetables, fruits, legumes, whole grains, lean meats and seafood, low-fat dairy and are low in red and processed meats, saturated fat and sugar-sweetened beverages and sweets. These dietary patterns are aligned with those recommended by the American Cancer Society[24] and the WCRF/AICR.[25]

[16] Thomson CA, McCullough ML, Wertheim BC, et al. Nutrition and Physical Activity Cancer Prevention Guidelines, Cancer Risk, and Mortality in the Women's Health Initiative. *Cancer Prev Res (Phila).* 2014; 7(1):42-53.
[17] Kabat GC, Matthews CE, Kamensky V, et al. Adherence to cancer prevention guidelines and cancer incidence, cancer mortality, and total mortality: a prospective cohort study. *Am J Clin Nutr*, 2015;101(3):558-569.
[18] McCullough ML, Patel AV, Kushi LH, et al. Following cancer prevention guidelines reduces risk of cancer, cardiovascular disease, and all-cause mortality. *Cancer Epidemiol Biomarkers Prev.* 2011;20(6):1089-1097.
[19] Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin 2018;68:31-54.
[20] Zhang FF, Cudhea F, Shan Z, et al. Preventable Cancer Burden Associated with Poor Diet in the United States. JNCI Cancer Spectrum 2019.
[21] Schwingshackl L, Bogensberger B, Hoffmann G. Diet Quality as Assessed by the Healthy Eating Index, Alternate Healthy Eating Index, Dietary Approaches to Stop Hypertension Score, and Health Outcomes: An Updated Systematic Review and Meta-Analysis of Cohort Studies. Journal of the Academy of Nutrition and Dietetics 2018;118:74-100 e11.
[22] Schwingshackl L, Schwedhelm C, Galbete C, Hoffmann G. Adherence to Mediterranean Diet and Risk of Cancer: An Updated Systematic Review and Meta-Analysis. Nutrients 2017;9.
[23] Grosso G, Bella F, Godos J, et al. Possible role of diet in cancer: systematic review and multiple meta-analyses of dietary patterns, lifestyle factors, and cancer risk. Nutr Rev 2017;75:405-19.
[24] Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020.
[25] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.

The 2020 DGAC additionally carried forward the 2015-2020 DGAC conclusion affirming that healthy dietary patterns are associated with favorable outcomes related to body weight (lower BMI, waist circumference, or percent body fat), or risk of obesity, as the previous evidence continues to reflect the current state of the science (Moderate grade). Such healthy dietary patterns emphasize vegetables, fruits, and whole grains; seafood and legumes; are moderate in dairy products (particularly low and non-fat dairy) and alcohol; and are lower in meats (including red and processed meats), and low in sugar-sweetened foods and beverages, and refined grains.

Trends in excess body weight among youth are a significant public health concern, as children with obesity are more likely than children with normal weight to become adults with obesity, putting youth at risk of chronic diseases and cancer. Promoting healthy dietary patterns and lifestyles during childhood in order to prevent obesity is more effective than trying to change unhealthy behaviors in adult populations.

The American Cancer Society's 2020 Guideline on Nutrition and Physical Activity[26] recommends following a healthy dietary pattern at all ages, and defines a healthy dietary pattern as one that includes: foods that are high in nutrients in amounts that help achieve and maintain a healthy body weight; a variety of vegetables—dark green, red and orange, fiber-rich legumes (beans and peas), and others; fruits, especially whole fruits with a variety of colors; and whole grains. In contrast, a healthy dietary pattern limits or does *not* include: red and processed meats; sugar-sweetened beverages; or highly processed foods and refined grain products.

Red and Processed Meats

The DGA should add red and processed meats to the list of components to limit for a healthy dietary pattern.

The 2015 DGAC's review of the evidence found strong or moderate evidence of associations between dietary patterns high in red and processed meat intake and increased risk of colorectal cancer, cardiovascular disease, measures of body weight or obesity, and type 2 diabetes. In 2015, IARC[27] concluded that processed meat (e.g., hot dogs, bacon, sausage, deli meats, etc.) is a Group 1 carcinogen and unprocessed red meat a Group 2a (probable) carcinogen, on the basis of evidence related to colorectal cancer. Likewise, the evidence that diets high in red meat (e.g., beef, pork, lamb) and processed meat are associated with increased risk of colorectal cancer is also considered probable and convincing, respectively, by WCRF/AICR, whose Continuous Update Project is the world's most comprehensive resource of scientific literature on food, nutrition, physical activity, and cancer.[28] Current evidence finds an approximately 12 to 16 percent higher risk of colorectal cancer for each 100 grams (g) of red meat or 50 g of processed meat consumed per day. Positive associations with cancers of the stomach, pancreas and prostate were also noted by IARC. Potential mechanisms for these relationships involve pre-formed or endogenously formed N-nitroso-compounds (NOC), polycyclic aromatic

[26] Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020.
[27] IARC. Red meat and processed meat /IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. Lyon, France: International Agency for Research on Cancer; 2015.
[28] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.

hydrocarbons (PAH) and heterocyclic aromatic amines (HAA) formed during high-heat cooking (e.g. pan-frying, grilling or barbequing), and also from heme iron, found in hemoglobin from red meat.

The evidence reviewed by the 2020-25 DGAC continues to support limiting these foods. Recommendations to consume leaner cuts of red meat is not enough, as these foods may still increase risk of cancer. We urge the Departments to explicitly advise limiting red and processed meat in the definition of a healthy dietary pattern in the 2020-2025 DGA.

Added Sugar

We urge the Departments to incorporate into the 2020-2025 DGA the DGAC's recommendation to reduce added sugars to less than 6 percent of calories for ages 2 years and older.

Added sugars in sugar-sweetened beverages and energy-dense foods (eg, traditional "fast food" or heavily processed foods) are associated with risk of weight gain, overweight, or obesity,[29] which in turn increase the risk of 13 types of cancers.[30] In addition, the WCRF/AICR notes that diets with high "glycemic load"—reflecting their blood sugar-raising potential—are probably associated with higher endometrial cancer risk.[31] Energy-dense and highly processed foods are often higher in caloric sweeteners, refined grains, saturated fat, and sodium.[32]

The recommendation of the DGAC to reduce added sugars to less than 6 percent of calories is consistent with those of other major health authorities. *The American Cancer Society Guideline for Diet and Physical Activity for Cancer Prevention*[33] recommends a healthy dietary pattern that limits or does not include sugar-sweetened beverages, highly processed foods or refined grains products, which are often high in added sugar. The World Health Organization advises both adults and children to reduce "free sugars" to less than 10 percent of calories and states that "a reduction to 5 percent of total energy intake would provide additional health benefits."[34] The American Heart Association's recommended limits on added sugars—no more than 100 calories of added sugars per day for children and women and no more than 150 calories per day for men—are roughly equal to 5 percent of calories for many people in each group.[35] The 2018 WCRF/AICR report recommends limiting consumption of "fast foods" and

[29] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018.
[30] International Agency for Research on Cancer (IARC). World Cancer Report. Cancer Research for Cancer Prevention. WHO Press; 2014.
[31] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018.
[32] US Department of Health and Human Services, US Department of Agriculture. 2015-2020 Dietary Guidelines for Americans. US Department of Health and Human Services; 2015.
[33] Rock, CL et al. *American Cancer Society guideline for diet and physical activity for cancer prevention*. CA Cancer J Clin 2020; 0:1-27.
[34] World Health Organization. *Sugars Intake for Adults and Children*. 2015. https://www.who.int/nutrition/publications/guidelines/sugars_intake/en/
[35] Van Horn L, et al. Recommended Dietary Pattern to Achieve Adherence to the American Heart Association/American College of Cardiology (AHA/ACC) Guidelines: A Scientific Statement from the American Heart Association. *Circulation*. 2016;134(22):e505-e529; Johnson RK, et al. Dietary Sugars Intake and Cardiovascular Health: A Scientific Statement from the American Heart Association. *Circulation*. 2009;120(11):1011-20; Vos MB, et

other processed foods high in saturated fat, starches, or added sugars[36] because of their association with body weight, and note that limiting sugar-sweetened beverages should be a high priority,[37] and recommend instead choosing water and unsweetened beverages.

We strongly support the DGAC's recommendation that children avoid foods and beverages with added sugars during the first 2 years of life.

This is consistent with the guidance of several leading health authorities. [38] The American Heart Association has concluded that there is strong evidence that sugar-sweetened beverage (SSB) intake during childhood leads to excess weight gain.[39] Consuming SSBs and foods with added sugars in the first two years of life is also likely to displace nutrient-dense foods.[40] Further, at least one study in U.S. children showed that frequent consumption of SSBs (≥ 3 times per week) in infancy was associated with a significantly increased risk of dental caries at age six years.[41]

Advice in the DGA should explicitly label flavored milks and so-called toddler milks as beverages to avoid for young children. The recent consensus statement published by Healthy Eating Research recommends that young children avoid flavored milks and toddler milks.[42] Flavored milks are sources of added sugars and excess calories, while toddler milks offer no unique nutritional value and may contribute added sugars to the diet.

Whole Grains

The DGA should clearly emphasize whole grains over refined, processed grains in the list of components to include (and limit) in a healthy dietary pattern.

Whole grain and dietary fiber consumption are of public health concern as addressed in the Full Scientific Report of the 2020 Dietary Guidelines Advisory Committee. Whole grain and dietary fiber

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al. Added Sugars and Cardiovascular Disease Risk in Children: A Scientific Statement from the American Heart Association. *Circulation*. 2017;135(19):e1017-e1034.

[36] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018.

[37] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: A Global Perspective. Continuous Update Project. The Third Expert Report. American Institute for Cancer Research; 2018.

[38] Perez-Escamilla, 2017; Lott M, et al. *Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations. Technical Scientific Report.* Healthy Eating Research. 2019; Vos MB, et. al. Added Sugars and Cardiovascular Disease Risk in Children. A Scientific Statement from the American Heart Association. *Circulation.* 2017; 135:e1017-34; Fidler N, et al. Sugar in Infants, Children and Adolescents: A Position Paper of the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition Committee on Nutrition. *J Pediatr Gastroenterol Nutr*. 2017:65:681-696.

[39] Vos, 2017; Fidler, 2017.

[40] Fidler, 2017; Vos, 2017.

[41] Park S, et al. Association of Sugar-Sweetened Beverage Intake during Infancy with Dental Caries in 6-year olds. *Clin Nutr Res*. 2015;4:49-17.

[42] Lott, 2019; Defined as "Milk drink supplemented with nutrients and often containing added sugars. These products are marketed as appropriate for children ages 9 to 36 months, and may be marketed as 'transition formulas,' 'follow-on formulas,' or 'weaning formulas' for children 9 to 24 months and 'toddler milk,' 'growing-up milk' or 'young child milk' for children 12 to 26 months."

intakes generally fall below the recommended amounts, while total grain intakes meet or exceed recommended amounts for most age and sex groups, primarily due to consumption of refined grain products that are also frequently highly processed. Highly processed foods are typically high in sodium, added sugar, and/or saturated fat, which may contribute to nutritionally unbalanced dietary patterns[43] and increased incidence of obesity,[44,45,46] and may increase risk of chronic disease.[47,48,49]

The 2015-2020 Dietary Guidelines recommended grains, at least half of which are whole grains, as part of a healthy dietary pattern. The guidelines also recommend choosing enriched grains when eating refined grains and that "…grains with some added sugars and saturated fats can fit within healthy eating patterns."

The evidence that diets high in whole grains are associated with lower risk of colorectal cancer is considered strong and convincing by the World Cancer Research Fund (WCRF)/American Institute for Cancer Research (AICR) Continuous Update Project report on colorectal cancer.[16] Additionally, the recently updated American Cancer Society guideline on diet and physical activity for cancer prevention recommends a healthy dietary pattern that includes whole grains and limits or does not include refined grain products and highly processed foods.[50] A wide variety of whole grain foods are readily available to consumers, and many of these products are fortified with folic acid. Given that many enriched refined grain foods are highly processed and high in sodium and/or added sugars, consumption of enriched whole grain foods should be recommended as a source of folic acid as well as dietary fiber.

We strongly encourage the 2020-2025 Guidelines to include clear recommendations for adults that encourages greater consumption of whole over refined grains and limited consumption of highly processed refined grain foods.

Alcohol

The 2020-2025 DGA should reduce the recommended amount of daily alcohol on days when alcohol is consumed and that non-drinkers should not start drinking to improve their health.

[43] Martinez Steele E, Popkin BM, Swinburn B, Monteiro CA. The share of ultra-processed foods and the overall nutritional quality of diets in the US: evidence from a nationally representative cross-sectional study. Popul Health Metr 2017;15:6.
[44] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.2018.
[45] Juul F, Martinez-Steele E, Parekh N, Monteiro CA, Chang VW. Ultra-processed food consumption and excess weight among US adults. The British journal of nutrition 2018;120:90-100.
[46] Monteiro CA, Moubarac JC, Levy RB, Canella DS, Louzada M, Cannon G. Household availability of ultra-processed foods and obesity in nineteen European countries. Public Health Nutr 2018;21:18-26.
[47] Srour B, Fezeu LK, Kesse-Guyot E, et al. Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Sante). BMJ 2019;365:l1451.
[48] Srour B, Fezeu LK, Kesse-Guyot E, et al. Ultraprocessed Food Consumption and Risk of Type 2 Diabetes Among Participants of the NutriNet-Sante Prospective Cohort. JAMA Intern Med 2019.
[49] Fiolet T, Srour B, Sellem L, et al. Consumption of ultra-processed foods and cancer risk: results from NutriNet-Sante prospective cohort. BMJ 2018;360:k322.
[50] Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020.

Alcohol consumption is the third major modifiable cancer risk factor after tobacco use and excess body weight.[51,52] It is well established that alcoholic beverage consumption increases the risk of oral cavity, pharynx, larynx, esophagus, liver, colorectum, and female breast cancer. Breast cancer is the most commonly diagnosed cancer among women, and there is evidence that consumption of alcohol at even less than one drink per day increases risk. Moreover, the effects of alcohol consumption on cancer risk are known to increase with increasing amounts of intake. We commend the DGAC's strong recommendations on limiting alcohol consumption, based on evidence across finer ranges of daily alcohol intake among drinkers. Current recommendations from the ACS[53] and WCRF/AICR[54] are that for cancer prevention, it is best not to drink. It is important that men and women who choose to drink alcohol recognize the importance of limiting their intake.

The Departments should address cancer-specific questions, in particular the relationship between alcohol consumption and cancer, that the DGAC was not able to complete due to time constraints.

The Scientific Report notes that the DGAC was not able to complete systematic reviews for several of the questions that were originally prioritized for the committee. Notably absent is a review of the relationship between alcohol and cancer.

Incorporating Strategies to Support Healthy Dietary Patterns

The 2020-2025 DGA should build on the 2015-2020 DGA's policy, systems, and environmental strategies to support healthy dietary patterns.

The ability of an individual to maintain a healthy diet and avoid many unhealthy lifestyle factors, including those related to food and beverage intake and physical inactivity, is often influenced by factors outside of an individual's direct control. Social, economic, and cultural factors strongly influence an individual's body weight, physical activity, dietary patterns, and alcohol intake.[55] In order for the DGA to be implemented at a population level, the 2015-2020 Guidelines stated that "broad, multisectoral coordination and collaboration" is required.[56] Without such actions, the American people are not likely to be successful at maintaining a healthy diet and weight. We urge the Departments to expand the strategies across all segments of society to promote healthy eating and physical activity listed in the 2015-2020 DGA.

[51] Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin 2018;68:31-54.
[52] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.2018.
[53] Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020.
[54] World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.2018.
[55] Trust for America's Health. The State of Obesity: Better Policies for a Healthier America. Robert Wood Johnson Foundation; 2018.
[56] U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at http://health.gov/dietaryguidelines/2015/guidelines/.

We urge the Departments to address the unique challenges of vulnerable populations and provide strategies to assist them in achieving a healthy diet and weight.

Critically important, the ACS guideline for diet and physical activity for cancer prevention recognized that although most Americans face obstacles to engaging in health-promoting behaviors, these challenges are often compounded for lower income individuals, communities of color, persons with disabilities, and those residing in rural communities, who frequently face additional barriers to the adoption of cancer-preventive behaviors.[57,58]

Importantly, these barriers, partially impacted by living in areas that are socially and economically disadvantaged, contribute in part to the greater health disparities documented among Black and Hispanic adults.[59] Lack of access to affordable healthy foods, an abundance of "fast food," convenience stores, and liquor stores, and lack of access to safe, affordable places to be physically active drive these disparities.

The COVID-19 pandemic has exposed gross health disparities in communities of color, rural and low SES populations (ref), with higher mortality from the disease among these populations.[60],[61] Vulnerable populations have a higher prevalence of excess body weight, diabetes and hypertension, putting them at greater risk not only of COVID-19 but of cardiovascular disease and cancer. In general, fewer opportunities exist for engaging in health-promoting dietary and physical activity patterns among populations who have been marginalized thus further increasing health inequities. Strategies aimed at the general population are often less effective among people of color and those of low socioeconomic status. Initiatives must address the unique challenges and barriers that certain groups (e.g., people of color, people with low incomes) often face when attempting to modify lifestyle behaviors, with culturally appropriate tailoring and equitable support to promote healthy behaviors. It is critically important for the DGA to incorporate recommendations and strategies that address vulnerable populations in order to "support healthy eating patterns for all."

The 2020-2025 DGA should make recommendations to reduce chronic disease in addition to preventing it, especially when chronic conditions put individuals at increased risk for serious illness from COVID-19.

The COVID-19 pandemic has highlighted that Americans were not able to maintain a healthy dietary pattern before the pandemic hit leading to worse outcomes. Diets high in saturated facts, sugars, and refined carbohydrates, the main dietary pattern of most Americans, puts individuals at risk for chronic

[57] Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin 2020.
[58] Krueger PM, Reither EN. Mind the gap: race/ethnic and socioeconomic disparities in obesity. Curr Diab Rep. 2015;15:95.
[59] Petersen R, Pan L, Blanck HM. Racial and ethnic disparities in adult obesity in the United States: CDC's tracking to inform state and local action. Prev Chronic Dis. 2019;16:E46.
[60] Belanger MJ, Hill MA, Angelidi AM, Dalamaga M, Sowers JR, Mantzoros CS. Covid-19 and Disparities in Nutrition and Obesity. N Engl J Med 2020.
[61] Adhikari S, Pantaleo NP, Feldman JM, Ogedegbe O, Thorpe L, Troxel AB. Assessment of Community-Level Disparities in Coronavirus Disease 2019 (COVID-19) Infections and Deaths in Large US Metropolitan Areas. JAMA Netw Open 2020;3:e2016938.

conditions that in turn greatly increase the risk of severe illness or death from COVID-19.[62] In the US, 6 in 10 adults already suffer from a chronic condition, and 4 in 10 suffer from two or more condition conditions.[63] Too many Americans are at risk for severe illness from both COVID-19 and chronic conditions due to modifiable risk factors like diet, physical activity, and alcohol consumption. The DGA must make recommendations to reduce chronic disease in addition to preventing chronic disease in the first place. The 2015-2020 DGA initiated this effort by comparing current consumption to the science-based recommendations and advising individuals on how to shift to healthier choices. The 2020-2025 must expand on this advice to assist Americans in achieving and maintaining a healthy dietary pattern. Importantly, those "shifts" must happen in our food environment in order to impact individual behavior. The 2020-2025 must build on the strategies in the 2015-2020 so the US food environment can shift to a healthy one for all.

The 2020-2025 DGA must address food insecurity.

The ability of Americans to have a healthy dietary pattern is more at risk than ever. Prior to the COVID-19 pandemic, 11.1 percent of US households were already experiencing food insecurity.[64]

- Among households with children, 13.9 percent were food insecure and among households below the federal poverty line, 29.1 percent were food insecure
- Rates of food insecurity were above the national average for Black, non-Hispanic (21.2) and Hispanic (16.2) households.[65]
- In particular, African American households face hunger at a rate more than twice that of white, non-Hispanic households.[66]
- According to one analysis, by the end of April 2020, 21.9 percent of all households and 34.5 percent of households with children were experiencing food insecurity.[67]
- Feeding Americans predicts that 1 in 6 Americans, including 1 in 4 children could experience food insecurity due to increased unemployment and more people experiencing poverty.[68]

Food insecurity has a negative impact on dietary quality – it is associated with a lower intake of vegetables, fruits, and dairy[69], which may contribute to malnutrition and an increased risk of chronic

[62] Bulter MJ, Barrientos RM. The impact of nutrition on COVID-19 susceptibility and long-term consequences. Brain Behav Immun. 2020 Jul; 87: 53–54.
[63] Buttorff C, Ruder T, Bauman M. Multiple Chronic Conditions in the United States pdf icon[PDF – 392 KB]external icon. Santa Monica, CA: Rand Corp.; 2017.
[64] Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2019. Household Food Security in the United States in 2018, ERR-270, U.S. Department of Agriculture, Economic Research Service.
[65] Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2019. Household Food Security in the United States in 2018, ERR-270, U.S. Department of Agriculture, Economic Research Service.
[66] Feeding America. https://www.feedingamerica.org/hunger-in-america/african-american
[67] Brookings Institute. The COVID-19 crisis has already left too many children hungry in America. May 6, 2020. https://www.brookings.edu/blog/up-front/2020/05/06/the-covid-19-crisis-has-already-left-too-many-children-hungry-in-america/
[68] Feeding America. The Impact of the Coronavirus on Local Food Insecurity. May 19, 2020. https://www.feedingamerica.org/sites/default/files/2020-05/Brief_Local%20Impact_5.19.2020.pdf
[69] Hanson KL, Connor LM. Food insecurity and dietary quality in US adults and children: a systematic review. *Am J Clin Nutr*. 2014; 100:684-692.

disease such as depression, diabetes, hypertension, hyperlipidemia, and sleep disorders.[70],[71] In addition, evidence suggests a higher risk of obesity among food insecure women.[72,73] A large national survey found that food insecurity was associated with 41% and 29% higher odds of overweight/obesity among white and Hispanic women, respectively.[74] In a national study of more than 13,700 young adults 24 to 32 years of age, food insecurity was associated with increased body mass index (BMI) among young women, but not young men.[75]

Food insecurity is the underlying condition preventing millions of Americans from having good health and protecting them from serious illness. Any recommendations for individual choices or implementation strategies to support those choices must address food insecurity directly.

Transparency in Developing the 2020-2025 DGA

As recommended by the National Academies of Science, Engineering and Medicine, we urge the Departments to "provide the public with a clear explanation when the DGA omit or accept only parts of conclusions from the scientific report."[76]

Overall, the DGAC's recommendations and conclusions reflect the preponderance of scientific evidence, and most of them should be adopted without reservation in the DGA. However, if there is a compelling reason to omit or accept only part of a conclusion or recommendation, the Departments have a duty to explain their rationale to the public. Exercising transparency in this way will help to ensure accountability so that public health, not politics, is the primary driver for updating the DGA.

Future Directions

We urge the Departments to take steps to strengthen the federal government nutrition research agenda and coordination to address needs for future updates of the DGA.

Similar to previous committees, the 2020 DGAC put forth valuable research recommendations that could lead to a more robust evidence base to inform future updates of the DGA. We encourage the Departments to work with relevant agencies, including the National Institutes of Health, towards

[70] Dixon LB, Winkleby MA, Radimer KL. Dietary intakes and serum nutrients differ between adults from food-insufficient and food-sufficient families: Third National Health and Nutrition Examination Survey, 1988-1994. *J Nutr*. 2001;131:1232-1246.
[71] Gundersen C, Ziliak JP. Food insecurity and health outcomes. *Health Aff (Millwood)*. 2015;34:1830-1839.
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[73] Franklin B, Jones A, Love D, Puckett S, Macklin J, White-Means S. Exploring Mediators of Food Insecurity and Obesity: A Review of Recent Literature. *J Community Health*. 2012;37(1):253-264.
[74] Hernandez DC, Reesor LM, Murillo R. Food insecurity and adult overweight/obesity: Gender and race/ethnic disparities. *Appetite*. 2017;117:373-378. doi:10.1016/j.appet.2017.07.010

[75] Gooding, H. C., Walls, C. E., & Richmond, T. K. (2012). Food insecurity and increased BMI in young adult women. *Obesity*, 20(9), 1896-190.

[76] National Academies of Sciences, Engineering, and Medicine. Redesigning the Process for Establishing the *Dietary Guidelines for Americans*. The National Academies Press. 2017:12. https://doi.org/10.17226/24883.

addressing these research needs. Specifically, we support recent calls for strengthened authority, investment, and coordination for nutrition research from the federal government.[77]

Conclusion

Thank you for your consideration of our comments and recommendations. If we can provide any additional information or if you have any questions, please contact Marji McCullough, SCD, RD, Senior Scientific Director, ACS, at 404-929-6816 or Marji.McCullough@cancer.org, or Catherine McMahon, Principal, Policy Development, ACS CAN, at 202-585-3245 or Catherine.McMahon@cancer.org.

We look forward to supporting the development and implementation of clear, actionable, science-based national dietary guidelines.

Sincerely,

William G. Cance, MD
Chief Medical and Scientific Officer
American Cancer Society

Lisa Lacasse
President
American Cancer Society Cancer Action Network

[77] Fleischhacker SE, et al. Strengthening National Nutrition Research: Rationale and Options for a New Coordinated Federal Research Effort and Authority. *Am J Clin Nutr*. 2020: nqaa179.