



Comments from the American Cancer Society and American Cancer Society Cancer Action Network on Topics and Scientific Questions for the 2025-2030 Dietary Guidelines for Americans

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These comments are being submitted on behalf of the American Cancer Society (ACS) and the American Cancer Society Cancer Action Network (ACS CAN). The American Cancer Society is the nation's largest voluntary health organization, dedicated to eliminating cancer as a major health outcome through research, education, and service. ACS CAN is the non-profit, non-partisan advocacy affiliate of the society. ACS CAN advocates for legislative, regulatory, and policy solutions that will make cancer a national priority.

ACS and ACS CAN are pleased to provide comments on the scientific questions under consideration for the 2025-2030 Dietary Guidelines for Americans (DGA). We are particularly pleased to see cancer included in the scientific questions regarding adults. Given the large volume of existing literature linking excess body weight, alcohol consumption, diet, and physical inactivity with risk of many different types of cancer, we would strongly encourage HHS and USDA to utilize reviews from the International Agency for Research on Cancer (IARC) and/or the World Cancer Research Fund (WCRF)/American Institute for Cancer Research (AICR) for cancers in which there is sufficient, convincing or probable evidence for causing cancer in humans by these four exposures. As such, our recommendations below address factors that would reduce cancer cases and deaths.

Background

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 and late adverse effects of treatment. Moreover, quality of life can also be substantially impacted for family, caregivers, and friends of patients with cancer.

Body weight, unhealthy 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

¹ American Cancer Society. Cancer Facts & Figures 2022. Atlanta: American Cancer Society; 2022

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.

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 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 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 and 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 2017-2018, 19.3% of youth aged 2 to 19 years had obesity affecting 14.4 million children. By age group, 21.2% of adolescents aged 12 to 19 years, 20.3% of children aged 6 to 11 years, and 13.4% of children aged 2 to 5 years had obesity.¹⁴

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, Scocciati 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

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 \geq 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 Fryar CD, Carroll MD, Afful J. Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2–19 years: United States, 1963–1965 through 2017–2018. NCHS Health E-Stats. 2020

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 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[18]} Recognizing the important role a person's community plays in influencing their food, beverage, and other lifestyle choices, the ACS 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.

Recommendations

Red and Processed Meat:

HHS and USDA should specifically consider red and processed meat and their impact on health in the Specific Dietary Patterns Components section of the scientific questions.

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 2020, the DGAC's review of the evidence confirmed the conclusions from the 2015 report, and additionally found strong evidence of an increased risk of all-cause mortality associated with dietary patterns that are high in red and processed meat.¹⁹ In 2015, IARC²⁰ 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

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.

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 Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Available at: <https://doi.org/10.52570/DGAC2020>

²⁰ 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.

the world's most comprehensive resource of scientific literature on food, nutrition, physical activity, and cancer.²¹ 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, therefore we recommend including stomach and pancreatic cancers in the review of evidence on red and processed meat and cancer risk. Potential mechanisms for these relationships involve pre-formed or endogenously formed N-nitroso-compounds (NOC), polycyclic aromatic hydrocarbons (PAH) and heterocyclic aromatic amines (HAA) formed during high-heat cooking (e.g., pan-frying, grilling or barbecuing), and also from heme iron, found in hemoglobin from red meat.

The American Cancer Society's 2020 Guideline on Nutrition and Physical Activity²² 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.

Given the findings from previous DGAC reports, as well as evidence reviews by other entities, we urge the Departments to include the following research question in the Specific Dietary Pattern Components section, and to include stomach and pancreatic cancers in this review:

What is the relationship between consumption of red and processed meat and:

- body composition, risk of overweight and obesity, and weight loss and maintenance?
- risk of cardiovascular disease?
- risk of type 2 diabetes?
- risk of certain types of cancer (breast, colorectal, lung, prostate, stomach, pancreatic)?
- risk of cognitive decline, mild cognitive impairment, dementia, and Alzheimer's disease?
- risk of sarcopenia?
- bone health?
- all-cause mortality?

Alcohol:

HHS and USDA should include recommendations related to alcohol consumption, even if alcohol is reviewed under a separate process.

²¹ World Cancer Research Fund/American Institute for Cancer Research. Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. Continuous Update Project Expert Report 2018.

²² 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.^{23,24} 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. Current recommendations from the ACS²⁵ and WCRF/AICR²⁶ 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.

We strongly urge the Departments to incorporate strong recommendations to limit or avoid alcohol into the 2025-30 Dietary Guidelines. If the Departments review the evidence for the impact of alcohol on health outcomes outside of the DGAC process, we urge that this be done with the same level of scientific rigor as the DGAC process and be done on a timeline that coincides with the DGAC evidence review so recommendations can be included in the 2025-30 DGA.

Beverages:

We support the current proposal to examine the relationship between consumption of various beverages and anthropometric parameters, weight gain and loss, and risk of type 2 diabetes, and encourage the committee to present results for each of these beverages and outcomes separately.

Added Sugars:

We likewise support the plan to examine the association of food sources of added sugars consumed and these same outcomes and recommend evaluating the association of *total added sugars* with anthropometric outcomes.

Ultra-Processed Foods:

We support an examination of these foods in relation to growth, size, body composition, risk of overweight and obesity and weight loss and maintenance. Ultra- (or highly-) processed foods tend to be higher in sugar, fat and salt, and to be of low nutritional quality. The WCRF/AICR concludes that ‘fast foods’ and sugar-sweetened beverages are associated with weight gain, overweight and obesity, and both categories can be defined as highly processed.

Incorporating Strategies to Support Healthy Dietary Patterns:

We strongly encourage HHS and USDA to consider a broad range of factors, including policy and environmental approaches, which influence people’s diet and weight-related behaviors. 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

²³ 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.

²⁴ 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.

²⁵ 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.

²⁶ 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.

individual's direct control. Social, economic, and cultural factors strongly influence an individual's body weight, physical activity, dietary patterns, and alcohol intake.²⁷ We urge the Departments to include specific actions for all segments of society to support and promote healthy eating and physical activity.

We urge the Departments to address the unique challenges of populations that have been marginalized 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.^{28,29}

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.³⁰ 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 contribute to 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.^{31, 32} Populations that have been marginalized 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. 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 populations that have been marginalized in order to "support healthy eating patterns for all."

We urge the Departments to address food insecurity in the DGA.

²⁷ Trust for America's Health. The State of Obesity: Better Policies for a Healthier America. Robert Wood Johnson Foundation; 2018.

²⁸ 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.

²⁹ Krueger PM, Reither EN. Mind the gap: race/ethnic and socioeconomic disparities in obesity. Curr Diab Rep. 2015;15:95.

³⁰ 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.

³¹ 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.

³² 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.

Food insecurity has a negative impact on dietary quality – it is associated with a lower intake of vegetables, fruits, and dairy³³, which may contribute to malnutrition and an increased risk of chronic disease such as depression, diabetes, hypertension, hyperlipidemia, and sleep disorders.^{34, 35} In addition, evidence suggests a higher risk of obesity among food insecure women.^{36,37} 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.³⁸

Food insecurity is an 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.

³³ 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.

³⁴ 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.

³⁵ Gundersen C, Ziliak JP. Food insecurity and health outcomes. *Health Aff (Millwood).* 2015;34:1830-1839.

³⁶ Adams EJ, Grummer-Strawn L, Chavez G. Food insecurity is associated with increased risk of obesity in California women. *J Nutr.* 2003;133(4):1070-1074.

³⁷ 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.

³⁸ 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