Federal Data Analysis Report for the 2025 Dietary Guidelines Advisory Committee: Prevalence of Nutrition-Related Chronic Health Conditions

Colleen M. Cruz, MPH, RDN,[a] Dana DeSilva, PhD, RD,[b] Kara Beckman, PhD,[c] Sarah Karp, MNSP, RD, LDN,[c] Tessa Lasswell, MPH, RDN,[d] Chinwe Obudulu, MS, RD, LD,[d] TusaRebecca Pannucci, PhD, MPH, RD,[e] Eve Stoody, PhD,[f] Janet de Jesus, MS, RD[g]

[a] Data Analysis Team Co-lead, Nutrition Guidance and Analysis Division (NGAD), Center for Nutrition Policy and Promotion (CNPP), Food and Nutrition Service (FNS), U.S. Department of Agriculture (USDA)

[b] Data Analysis Team Co-lead, Office of Disease Prevention and Health Promotion (ODPHP), Office of the Assistant Secretary for Health (OASH), U.S. Department of Health and Human Services (HHS)

[c] Data Analysis Team, ODPHP, OASH, HHS

[d] Data Analysis Team, NGAD, CNPP, FNS, USDA

[e] Branch Chief, Nutrition and Economic Analysis Branch (NEAB), NGAD, CNPP, FNS, USDA

[f] Director, NGAD, CNPP, FNS, USDA

[g] Designated Federal Officer and Nutrition Advisor, ODPHP, OASH, HHS

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Introduction

The 2025 Dietary Guidelines Advisory Committee (Committee) used data analysis to describe the current health status and dietary intakes of individuals in the United States. The federal data analysis team and interagency partners supported the work of the Committee by analyzing data on specific topics and questions. The federal team and partners included expert scientists with advanced degrees in nutrition, statistics, and epidemiology from the following Departments and agencies:

United States Department of Health and Human Services (HHS)

- Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health
- National Cancer Institute, National Institutes of Health
- National Center for Health Statistics, Centers for Disease Control and Prevention

United States Department of Agriculture (USDA)

- Center for Nutrition Policy and Promotion, Food and Nutrition Service, Food, Nutrition, and Consumer Services
- Food Surveys Research Group, Beltsville Human Nutrition Research Center, Agricultural Research Service, Research, Education, and Economics

The Federal Data Analysis Reports provide federal staff-led summaries for the full collection of data analysis results that were cited in the Federal Data Analysis Plan or published in the Federal Data Analysis Supplements.[1-41] This report includes results for the prevalence of nutrition-related chronic health conditions, which contributed to the body of evidence for 2 of the 4 data analysis scientific questions:

- What is the current prevalence of nutrition-related chronic health conditions?
- Which nutrients and/or dietary components present a substantial public health concern because of underconsumption or overconsumption?

The 2025 Committee's Scientific Report synthesized the data analysis results and presented conclusion statements that described the state of the science based on the evidence considered for each data analysis question.[42] Neither the Federal Data Analysis Reports nor the Committee's Scientific Report should be interpreted as dietary guidance.

A brief overview of the data analysis methodology for each scientific question addressed in this report, along with summaries of the evidence, are described in the following sections.

Methodology

A collection of federal data sources, including the What We Eat in America (WWEIA), National Health and Nutrition Examination Survey (NHANES), informed the Committee's data analysis work. The Federal Data Analysis Plan describes the data analysis process, strategy, sources, and analyses used to support the Committee in answering the prioritized scientific questions.[1] The Federal Data Analysis Plan also provides a summary of and cites the methodology for each data source, including data collection, preparation, and analysis.

The Federal Data Analysis Reports provided a comprehensive summary of results for the topics examined in the data analysis questions.[43-47] Data for dietary intakes and chronic health conditions were analyzed for a variety of sociodemographic groups. Prioritized sociodemographic variables included age/life stage, sex, race and/or ethnicity, poverty to income ratio, household food security category, current household participation in the Supplemental Nutrition Assistance Program (SNAP), and current child participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). When available, additional sociodemographic variables were examined in published analyses: detailed race and/or ethnicity, education, family income, birth in or outside of the United States, health insurance status, disability status, geographic/metropolitan location, body mass index (BMI) status, and diabetes status.

Data points that may be unreliable— such as those with a small sample size, wide confidence interval (CI) and/or relative CI, large standard error, or large coefficient of variation—were excluded from the reports; however, these data points can be viewed in the original publications for most analyses. Analyses that included statistical testing were prioritized when possible—but were often not available—to identify differences between sociodemographic groups. When statistical testing was completed, significant differences were reported.

Questions and Key Definitions

This report describes data analysis results for the prevalence of nutrition-related chronic health conditions and related measures, which contribute to the evidence for 2 data analysis questions. The methodology and key definitions for those questions are presented below.

1. What is the Prevalence of Nutrition-Related Chronic Health Conditions?

This question relied on data from several sources to estimate the prevalence, incidence, or mortality attribution for various diet-related health conditions. Data sources included the NHANES, National Health Interview Survey (NHIS), Surveillance, Epidemiology, and End Results (SEER), and National Vital Statistics System (NVSS). Data collection methods for these sources varied and included surveys (with methods such as a health examination, laboratory tests, and/or self-report), birth certificate census, and population-based registries. For most health conditions, the Committee analyzed prevalence data, using crude prevalence when available and age-adjusted when crude was not available. Incidence data were examined for cancer and gestational conditions. Mortality data were examined for cancer only.

2. Which Nutrients and/or Dietary Components Present a Substantial Health Concern Because of Underconsumption or Overconsumption?

This question applied a 3-pronged framework to systematically identify nutrients and dietary components that are underconsumed or overconsumed and may a present public health concern for the population ages 6 months and older. Described in detail elsewhere, the 3-pronged framework was developed by a previous Committee and supported by the National Academies of Sciences, Engineering, and Medicine (NASEM).[48,49] To answer this question, the Committee reviewed evidence from several data sources relevant to 1 or more prongs:

1. Dietary intake data (usual nutrient intakes and total usual nutrient intakes), using self-reported 24-hour recall from What We Eat in America (WWEIA), NHANES;
2. Biological and clinical indicators (e.g., biomarkers), using laboratory and health examination data from NHANES; and

3. Clinical health consequences measured directly or indirectly through validated measures (e.g., health condition prevalence), using various data sources and collection methods including NHANES, NHIS, SEER, and NVSS.

Dietary intake data provided comparisons of intakes relative to recommended amounts, based on the *Dietary Guidelines for Americans, 2020-2025* and National Academies of Sciences, Engineering, and Medicine's (NASEM) Dietary Reference Intakes (DRIs), including Estimated Average Requirements (EAR), Adequate Intakes (AI), Chronic Disease Risk Reduction Intakes (CDRR), Tolerable Upper Intake Levels (UL), Acceptable Macronutrient Distribution Ranges (AMDR), and Estimated Energy Requirements (EER). Biological and clinical indicators provided laboratory data (e.g., vitamin D) in comparison to levels for deficiency, excess, or health risk.

In addition to reviewing the available data, the Committee also considered systematic review and food pattern modeling evidence for the nutrients and dietary components examined by this and previous Committees as well as the nutrients and food components identified as a public health concern in the 2020 Committee's report. For infants and young children ages 6 through 23 months, nationally representative data are limited; thus, the 3-pronged framework was supplemented with expert opinion from the Committee and guidance from the NASEM report on the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).[50]

Key Definitions

Child Special Supplemental Nutrition Program for Women, Infant, and Children Program (WIC) Participation: Sociodemographic data identified by the NHANES variable FSD660ZC from the Food Security Questionnaire.[51] This variable measured a child's current WIC participation status, regardless of WIC eligibility.

Household Food Security Category: Sociodemographic data identified by the NHANES variable FSDHH from the Food Security Questionnaire.[51] This variable used the U.S. Food Security Survey Module questions to measure 4 levels of household food security: full, marginal, low, or very low.

Household Supplemental Nutrition Assistance Program (SNAP) Participation: Sociodemographic data identified by the NHANES variable FSD230 from the Food Security Questionnaire.[51] This variable measured a household's current SNAP participation status, regardless of SNAP eligibility.

Income as a percentage of the federal poverty level (FPL): Demographic data identified by the NHANES variable INDFMPIR.[51] Data is expressed as the ratio of family income to the U.S. Department of Health and Human Services poverty guidelines expressed as a percentage.[52] This report applies the terminology included in each original data publication for its summaries. Thus, the terms "poverty to income ratio," "poverty income level," "household poverty level," and "family income relative to the poverty guidelines" will also be used interchangeably.

Race and/or Hispanic origin: Demographic data identified by the NHANES variables RIDRETH1 and RIDRETH3. These variables recoded participants' self-identified race and/or Hispanic origin into 7 categories: Mexican American, other Hispanic, non-Hispanic White, non-Hispanic Black, non-Hispanic Asian, and other race including multi-racial. For the purposes of the Committee's work, the term "race and/or ethnicity" will be used interchangeably with "race and/or Hispanic origin."

A more extensive list of other relevant definitions can be found in the Federal Data Analysis Plan.[1]

Methodology: Infants and Young Children

The prevalence of nutrition-related chronic health conditions for infants and young children ages birth through 23 months is estimated using data from NHANES and NVSS. Context and methodology specific to each analysis type is described below:

- Prevalence of low weight-for-recumbent length, low recumbent length-for-age, low weight-for-age, and high weight-for-recumbent length among infants and young children is estimated using data from NHANES 2017-2018.[53,54]
- Prevalence of low birthweight among infants is estimated using data from NVSS 2021.[55] NVSS is a census of birth certificate data, which is proxy-reported by the parent(s), birth facility, and/or another individual. Definitions for these measures are provided in **Table 1**.

Table 1. Definitions for Growth, Size, and Weight Measures Used for Infants and Young Children Ages Birth through 23 Months

Term	Definition
Low weight-for-recumbent length	Weight less than 2.3rd percentile of weight-for-recumbent length on the sex-specific World Health Organization (WHO) growth standards
Low recumbent length-for-age	Recumbent length less than 2.3rd percentile of recumbent length-for-age on the sex-specific WHO growth standards
Low weight-for-age	Weight less than 2.3rd percentile of weight-for-age on the sex-specific WHO growth standards
High weight-for-recumbent length	Weight at or above the 97.7th percentile of weight-for-recumbent length on the sex-specific WHO growth standards
Low birthweight	Less than 2,500 grams (5 lb. 8 oz.)

Methodology: Children and Adolescents

The prevalence of nutrition-related chronic health conditions for children and adolescents (generally ages 2-19 years) is estimated using data from NHANES. Context and methodology specific to each analysis type is described below:

Growth, Size, Body Composition, Overweight, and Obesity

- The prevalence of underweight is obtained using estimates from NHANES 2017-2018.[56] Underweight is defined as <5th percentile on the sex-specific body mass index (BMI)-for-age growth charts from the Centers for Disease Control and Prevention (CDC).
- Prevalence of overweight, obesity (including severe obesity), and severe obesity among children and adolescents ages 2-19 years is estimated using data from NHANES 2015-2016 and NHANES 2017-March 2020.[2,57,58] NHANES 2015-2016 and 2017-March 2020 data are combined for stratifications that required a larger sample size. NHANES data reported by Healthy People 2030 are age-adjusted. Other measures are crude unless otherwise noted. Based on CDC's sex-specific BMI-for-age growth charts, overweight is defined as 85th to <95th percentile, obesity is defined as ≥95th percentile, and severe obesity is defined as ≥120 percent of the 95th percentile (or 35 kg/m^2 or greater).[59]
- The prevalence of overweight, obesity (including severe obesity), and severe obesity among children and adolescents ages 2-19 years between time periods are estimated using cross-sectional data from NHANES 2009-2010 and NHANES 2017-2018.[60]

Cardiovascular Health

- The prevalence of high low-density lipoprotein (LDL) cholesterol (≥130 mg/dL) is estimated for children and adolescents ages 12-19 years using data from NHANES 2015-2016 and NHANES 2017-March 2020.[2,61] NHANES 2015-2016 and 2017-March 2020 data are combined for stratifications that required a larger sample size. Several estimates do not meet the NCHS Data Presentation Standards for Proportions due to large CI width and/or small sample size and are noted in the **Summary of the Evidence: Cardiovascular Health** section.
- The prevalence of low high-density lipoprotein (HDL) cholesterol (<40 mg/dL) among children and adolescents ages 12-19 years is estimated using 2 NHANES cycles (NHANES 2015-2016 and NHANES 2017-March 2020), because a larger sample size is required for some stratifications.[2,61] Several measures do not meet the NCHS Data Presentation Standards for Proportions due to large CI width and/or small sample size and are noted in the **Summary of the Evidence: Cardiovascular Health** section.
- The prevalence of hypertension among children and adolescents ages 8-17 years is estimated using NHANES 2017-March 2020. Several estimates do not meet the NCHS Data Presentation Standards for Proportions due to large CI width and/or small sample size and are noted in the **Summary of the Evidence: Cardiovascular Health** section.
    - For ages 8-12 years, hypertension is defined as either 1) systolic blood pressure ≥130 millimeters of mercury (mmHg) or ≥95th percentile for age, height, and sex (whichever is lower) or 2) diastolic blood pressure ≥80 mmHg or ≥95th percentile for age, height, and sex (whichever is lower).[2,62] For ages 13-17 years, hypertension is defined as systolic blood pressure ≥130 mmHg or diastolic blood pressure ≥80 mmHg.

Prediabetes and Diabetes

- The prevalence of prediabetes among children and adolescents ages 12-19 years is described using laboratory assessment data from NHANES 2017-March 2020.[2] For this analysis, prediabetes is defined as having a fasting blood glucose level of 100-125 mg/dL (5.6-6.9 mmol/L) and/or A1C level of 5.7-6.4 percent.[63]
- Diagnosed diabetes prevalence among children and adolescents birth through age 19 years is estimated using data from NHIS 2019-2021.[64] NHIS provides self-reported data on the prevalence of total diagnosed diabetes, which includes both type 1 and type 2 diabetes, using the following questions:
    - Child interview (birth through age 17 years): “Not including prediabetes, has a doctor or other health professional ever told you that [sample child’s name] had diabetes?”
    - Adult interview (ages 18 years and older): “Not including gestational diabetes and prediabetes, has a doctor or other health professional ever told you that you had diabetes?”
- Small sample sizes serve as a limitation for additional diabetes prevalence data for children and adolescents from nationally representative sources. Thus, estimates of diagnosed type 2 diabetes prevalence are also obtained from the SEARCH for Diabetes in Youth Study 2001-2017, which uses surveillance networks to collect annual cross-sectional data on diabetes among those ages 19 years and younger from clinical centers, including the Indian Health Service within 6 areas of the United States.[65,66] Although the study is representative of the center’s geographic catchment areas, it is not nationally representative of the United States. However, it offers context toward understanding diabetes in youth and allows for examination of prevalence for diagnosed type 2 diabetes among ages 10-19 years. Children ages 9 years and younger with type 2 diabetes were not captured because too few children of this age had type 2 diabetes.

Oral Health

- In children and adolescents ages 2-19 years, the prevalence of untreated or restored dental caries in 1 or more primary or permanent teeth is reported using NHANES 2017-March 2020 data.[57] Missing permanent teeth due to dental disease are not included in this analysis.

Food Allergy

- The prevalence of food allergies is reported as proxy for children ages birth through 17 years in the NHIS 2018 data.[67] The NHIS question to collect these data was as follows: “During the past 12 months, has [child’s name] had any of the following conditions? Hay fever? Any kind of respiratory allergy? Any kind of food or digestive allergy? Eczema or any kind of skin allergy?” Data are reported as any kind of food or digestive allergy, not specified.

Methodology: Adults and Older Adults

The prevalence of nutrition-related chronic health conditions for adults and older adults (generally ages 20 years and older) is estimated using data from NHANES, NHIS, NVSS, and SEER. Context and methodology specific to each analysis type is described below:

Growth, Size, Body Composition, Overweight, and Obesity

- Anthropometric measures for adults and older adults ages 20 years and older are estimated using data from NHANES 2015-2016 and NHANES 2017-March 2020.[2,68] NHANES 2015-2016 and NHANES 2017-March 2020 data are combined for stratifications that required a larger sample size.
- Prevalence of underweight (BMI of ≤18 kg/m^2) among adults and older adults ages 20 years and older is estimated using data from NHANES 2017-2018.[69]
- Prevalence of overweight, obesity (including severe obesity), and severe obesity among adults and older adults ages 20 years and older is estimated using data from NHANES 2015-2016 and NHANES 2017-March 2020.[2,57,70] NHANES 2015-2016 and NHANES 2017-March 2020 data are combined for stratifications that required a larger sample size. Data reported by Healthy People are age-adjusted. Other measures are crude unless otherwise noted. Overweight is defined as a BMI of 25 to 29.9 kg/m^2, obesity is defined as a BMI ≥30 kg/m^2, and severe obesity is defined as a BMI ≥40 kg/m^2.[71]

Cardiovascular Health

- Prevalence of high LDL cholesterol (≥100 mg/dL) among adults and older adults ages 20 years and older is estimated by combining data from 2 NHANES cycles (NHANES 2015-2016 and NHANES 2017-March 2020), because a larger sample size is required for analysis.[2,61]
- Prevalence of low HDL cholesterol (<40 mg/dL) among adults and older adults ages 20 years and older is estimated by combining data from 2 NHANES cycles (NHANES 2015-2016 and NHANES 2017-March 2020), because a larger sample size is required for analysis.[2,61,72]
- The age-adjusted prevalence of high total cholesterol (≥240 mg/dL) among adults and older adults ages 20 years and older is estimated using data from NHANES 2015-2016 and NHANES 2017-2018.[61,72] NHANES 2015-2016 and NHANES 2017-2018 data are combined because stratifications required a larger sample size.
- The prevalence of high triglycerides (≥150 mg/dL) among adults and older adults ages 20 years and older is estimated using data from NHANES 2015-2016 combined with NHANES 2017-2020, in order to achieve the larger sample size required for analysis.[2,61]

- Prevalence of hypertension among adults and older adults ages 18 years and older is based on health examination (measured blood pressure) combining NHANES 2015-2016 with NHANES 2017-March 2020.[2,57,73,74] The NHANES data reported by Healthy People are age-adjusted, and other measures are crude unless otherwise noted.
- Self-reported prevalence of diagnosed hypertension is also obtained from NHIS 2022 for racial and/or ethnic groups because NHIS includes American Indian and Alaska Native populations, who are not captured with a large enough sample size to report as individual race and/or ethnicity categories in NHANES.[75] Data are obtained using the survey question, "Have you ever been told by a doctor or other health professional that you had hypertension, also called high blood pressure?" As data are self-reported, estimates will differ from those reported by NHANES health examination.
- Self-reported prevalence of stroke among adults and older adults ages 18 years and older is estimated using data from NHIS 2018.[76] Data are obtained using the survey question, "Have you ever been told by a doctor or other health professional that you had a stroke?" Several measures do not meet NCHS standards of reliability and are noted in the **Summary of the Evidence: Cardiovascular Health** section.
- Self-reported prevalence of coronary heart disease among adults and older adults ages 18 years and older is estimated using data from NHIS 2022.[77] Data are obtained using the survey question, "Have you ever been told by a doctor or other health professional that you had coronary heart disease?" Several measures do not meet NCHS standards of reliability and are noted in the **Summary of the Evidence: Cardiovascular Health** section.

Prediabetes and Diabetes

- The prevalence of prediabetes among adults and older adults is reported using laboratory assessment data from NHANES 2017-March 2020.[64] Prediabetes is defined as having a fasting plasma glucose value of 100-125 mg/dL and/or A1C values of 5.7-6.4 percent in people who do not have diabetes.[78] Estimates include either individuals ages 18 years and older or individuals ages 20 years and older, depending on the analysis.
- Diabetes prevalence (crude and age-adjusted) is obtained primarily via laboratory assessment from NHANES 2015-2016 and NHANES 2017-March 2020.[2,57,64] NHANES 2015-2016 and NHANES 2017-March 2020 data are combined for stratifications that required a larger sample size. The estimates for total diabetes prevalence by age, sex, race and/or ethnicity, education, family income, and BMI are age-adjusted; all other estimates are crude. Diabetes is defined as having 1 or more of the following measurements:[63]
    - Reported physician diagnosis of diabetes
    - Fasting plasma glucose of 126 mg/dL or greater
    - Hemoglobin A1C of 6.5 percent or greater
- Self-reported diabetes prevalence by metropolitan residence and detailed race and/or ethnicity is estimated from NHIS 2019-2021, as these sociodemographic groups are not available in current NHANES analyses.[64] NHIS data are self-reported using the question, "Not including gestational diabetes or prediabetes, has a doctor or other health professional ever told you that you had diabetes?" As such, estimates will differ from those reported by NHANES laboratory assessment.
- For the purposes of the analyses described above, the term "total diabetes" is used when both diagnosed and undiagnosed diabetes are included. Unless otherwise noted, the data described in the **Summary of the Evidence: Prediabetes and Diabetes** section examine prevalence for both type 1 and type 2 diabetes in adults and older adults ages 18 years and older. The surveys used by the U.S. Diabetes Surveillance System to examine diagnosed diabetes do not currently distinguish between

types of diabetes, but because type 2 diabetes accounts for more than 90 percent of diagnosed diabetes in adults, CDC assumes the prevalence of type 2 diabetes to be close to what is reported in current surveillance.[79]

Metabolic Syndrome

- The prevalence of metabolic syndrome in adults and older adults ages 20 years and older is described using health and laboratory assessment data from NHANES 2017-March 2020.[2] For this analysis, metabolic syndrome is defined as having 3 or more of the following measurements:[80]
    - Abdominal obesity (waist circumference of 40 inches or 102 centimeters or greater in men, and 35 inches or 88 centimeters or greater in women)
    - Triglyceride level of 150 milligrams per deciliter of blood (mg/dL) or greater
    - HDL cholesterol of less than 40 mg/dL in men or less than 50 mg/dL in women
    - Systolic blood pressure of 130 millimeters of mercury (mmHg) or greater, or diastolic blood pressure of 85 mmHg or greater, or taking high blood pressure medication. Based on average of up to 3 oscillometric blood pressure measurements.
    - Fasting plasma glucose of 100 mg/dL or greater or taking medication to control diabetes (insulin or pills)

Gestational Diabetes and Pre-pregnancy Conditions

- Prevalence of gestational diabetes among pregnant females is estimated using data from NVSS 2020.[81] NVSS is a census of birth certificate data, which is proxy-reported by the parent(s), birth facility, and/or another individual. The data describe the gestational diabetes rates per 100 live births.
- Prevalence of gestational hypertension among pregnant females is estimated from NVSS 2020.[82] The data describe prevalence per 1,000 live births.
- Prevalence of pre-pregnancy obesity in mothers who gave birth in 2019 is estimated using data from NVSS 2019.[83]

Osteoporosis and Low Bone Mass

- The age-adjusted prevalence of osteoporosis and low bone mass are reported using NHANES 2017-2018 data from health examination.[84,85] Bone mineral density at the lumbar spine and femur neck were measured by dual energy x-ray absorptiometry.

Cancer

- Incidence and mortality rates for breast cancer (female) and colon and rectal cancer are obtained from SEER 22, which collects data from U.S. population-based cancer registries.[86] Incidence data are examined for 2021 and compared to 2016 and 2011 (i.e., 5 and 10 years ago), and mortality data are examined for 2022 and compared to 2017 and 2012. All rates are reported per 100,000 people, age-adjusted to the 2000 U.S. Standard Population, and delay-adjusted to account for submission reporting delay.
- In 2020, the impact of Coronavirus Disease 2019 (COVID-19) on health services and reduction in cancer screenings and diagnoses led to a decline in the 2020 incidence rates for most cancer types. Thus, comparisons of current data to 2020 data are not included.

Oral Health

- In adults and older adults ages 20 years and older, the prevalence for untreated dental caries is based on oral health examinations using NHANES 2015-2016 and NHANES 2017-2018.[87] NHANES 2015-2016 and NHANES 2017-March 2020 data are combined because stratifications require a larger sample size.
- The prevalence of complete tooth loss is reported for older adults ages 65 years and older using NHANES 2015-2016 and NHANES 2017-March 2020, as well as NHANES 1999-2000 and 2017-2018 for differences between time periods.[57,88] NHANES 2015-2016 and NHANES 2017-2018 data are combined because stratifications require a larger sample size.

Summary of the Evidence: Prevalence of Nutrition-Related Chronic Health Conditions

Growth, Size, Body Composition, Overweight, and Obesity

Infants and Young Children

Total[53,54]

- The prevalence of low weight-for-recumbent length is 0.2 percent.
- The prevalence of low recumbent length-for-age is 2.9 percent.
- The prevalence of low weight-for-age is 0.9 percent.
- The prevalence of high weight-for-recumbent length is 9.6 percent.
- The total prevalence of low birthweight is 8.52 percent.
- By number of births, the prevalence of low birthweight is 6.93 percent for singleton births, 55.92 percent for twin births, 95.36 percent for triplet births, 99.25 percent for quadruplet births, and 100 percent for quintuplet or greater births.

Age of mother[55]

- Prevalence of low birthweight is described by age of mother in **Table 2** below.

Table 2. Prevalence of Low Birthweight by Age of Mother

Age in Years	Low Birthweight
<15	14.29%
15-19	10.53%
20-24	8.98%
25-29	7.97%
30-34	7.92%
35-39	8.93%
40-44	10.99%
45-54	16.74%

Race and/or ethnicity[55]

- The prevalence of low birthweight is 7.03 percent among infants of non-Hispanic White females, 14.66 percent among infants of non-Hispanic Black females, and 7.82 percent among infants of Hispanic females.

Children and Adolescents

Underweight

Total[56]

- The prevalence of underweight among children and adolescents ages 2-19 years is 4.1 percent.

Age[56]

- The prevalence of underweight is 3.4 percent among children ages 2-5 years, 3.6 percent among children ages 6-11 years, and 4.7 percent among children and adolescents ages 12-17 years.

Sex[56]

- The prevalence of underweight among children and adolescents ages 2-18 years is 5.0 percent among males and 3.1 percent among females.

Overweight, Obesity, and Severe Obesity

Total[57]

- The total prevalence of obesity among children ages 2-19 years is 19.2 percent.
- The total prevalence of overweight and obesity among children ages 2-19 years is 36 percent.

Age[57]

- Total prevalence of obesity is significantly different between child and adolescent age groups. Prevalence is lowest among ages 2-5 years (12.7 percent), higher among ages 6-11 years (20.7 percent), and highest among ages 12-19 years (22.2 percent).
- Among males, the prevalence of obesity is significantly lower among those ages 2-5 years (13.6 percent) compared to those ages 6-11 years (22.9 percent) and ages 12-19 years (22.6 percent).
- Among females, the prevalence of obesity is 11.8 percent among ages 2-5 years, 18.5 percent among ages 6-11 years, and 21.7 percent among ages 12-19 years.

Sex[57]

- Prevalence of obesity among children and adolescents ages 2-19 years is 20.9 percent among males and 18.5 percent among females.
- Among children ages 6-11 years, the prevalence of obesity is significantly higher in males (22.9 percent) than females (18.5 percent).

Race and/or Hispanic origin[57]

- Among children and adolescents ages 2-19 years, the prevalence of obesity is significantly:
    - Lower among non-Hispanic Asian children (9.0%) than non-Hispanic White children (16.6%), non-Hispanic Black children (24.8%), and Hispanic children (26.2%)
    - Lower among non-Hispanic White children (16.6%) than non-Hispanic Black children (24.8%) and Hispanic children (26.2%)

- Lower among non-Hispanic White females (15.4%) than non-Hispanic Black females (30.8%)
- Higher among non-Hispanic Black females (30.8%) than non-Hispanic Black males (18.8%)
- Higher among Hispanic females (23%) than in non-Hispanic White females (15.4%)
- Higher among Hispanic males (29.3%) than non-Hispanic White males (17.6%)
- Higher among non-Hispanic Black females (30.8%) than in Hispanic females (23%)
- Higher among Hispanic males (29.3%) than non-Hispanic Black males (18.8%)

Family income relative to the federal poverty level[57]

- Among children and adolescents ages 2-19 years, the prevalence of obesity is significantly different between groups for family income relative to the FPL. Prevalence is highest for those with family income <130 percent FPL (25.8 percent), lower for those with family income >130 percent through 350 percent FPL (21.2 percent), and lowest for those with family income >350 percent FPL (11.5 percent).

Country of birth[58]

- For children and adolescents ages 2-19 years, the prevalence of obesity is 20.1 percent among those born in the United States and 13.9 percent among those born outside of the United States.

Health insurance status[58]

- The prevalence of obesity among children and adolescents ages 2-19 years is 28.7 percent for those without health insurance and 19.1 percent for those with health insurance.
- Of the children that do have health insurance, the prevalence of obesity among those with private insurance is 14.5 percent and those with public insurance is 24.6 percent.

Household food security category[2]

- Among children and adolescents ages 2-19 years, the prevalence of overweight, obesity, and severe obesity by household food security category are described in **Table 3**.

Table 3. Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Ages 2-19 Years by Household Food Security Category

Household Food Security Category	Overweight	Obesity	Severe Obesity
Full	16.0%	15.6%	4.4%
Marginal	16.4%	23.5%	9.0%
Low	18.3%	26.2%	9.5%
Very low	19.5%	27.0%	9.7%

Current household SNAP participation status[2]

- Among children and adolescents ages 2-19 years, the prevalence of overweight, obesity, and severe obesity by current household SNAP participation status are described in **Table 4**.

Table 4. Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Ages 2-19 Years by Current Household Supplemental Nutrition Assistance Program (SNAP) Participation Status

Current SNAP Participation Status	Overweight	Obesity	Severe Obesity
SNAP participants	17.5%	25.0%	9.9%
SNAP nonparticipants	16.4%	17.2%	5.0%

Child WIC participation status[2]

- Among children ages 2-5 years, the prevalence of overweight, obesity, and severe obesity by current child WIC participation status are described in **Table 5**.

Table 5. Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Ages 2-5 Years by Current Child Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Participation Status

Current WIC Participation Status	Overweight	Obesity	Severe Obesity
WIC participants	17.9%	17.1%	4.3%
WIC nonparticipants	14.1%	12.4%	1.8%

Overweight, Obesity, and Severe Obesity in 2009-2010 and 2017-2018

Total[60]

- The overall prevalence varied between the 2009-2010 and 2017-2018 survey periods for overweight (14.9 percent vs. 16.1 percent), obesity (16.9 percent vs. 19.3 percent), and severe obesity (5.6 percent vs. 6.1 percent).

Age[60]

- Among children ages 2-5 years, prevalence of obesity was 12.1 percent in 2009-2010 and 13.4 percent in 2017-2018.
- Among children ages 6-11 years, prevalence of obesity was 18.0 percent in 2009-2010 and 20.3 percent in 2017-2018.
- Among children and adolescents ages 12-19 years, prevalence of obesity was 18.4 percent in 2009-2010 and 21.2 percent in 2017-2018.

Sex[60]

- For males ages 2-19 years, the prevalence between the 2009-2010 and 2017-2018 survey periods varied among body mass index (BMI) categories for overweight (14.4 percent vs. 14.7 percent), obesity (18.6 percent vs. 20.5 percent), and severe obesity (6.4 percent vs. 6.9 percent).
- For females ages 2-19 years, the prevalence between the 2009-2010 and 2017-2018 survey periods varied for overweight (15.4 percent to 17.6 percent), obesity (15.0 percent to 18.0 percent), and severe obesity (4.7 percent to 5.2 percent).

Race and/or ethnicity and sex[60]

- For males ages 2-19 years, prevalence of obesity varied by race and/or ethnicity between 2009-2010 and 2017-2018:
    - 16.1% vs.17.4% among non-Hispanic White males
    - 24.3% vs. 19.4% among non-Hispanic Black males
    - 23.4% vs. 28.1% among Hispanic males
- For females ages 2-19 years, prevalence of obesity varied by race and/or ethnicity between 2009-2010 and 2017-2018:
    - 11.7% vs. 14.8% among non-Hispanic White females
    - 24.3% vs. 29.1% among non-Hispanic Black females

- 18.9% vs. 23.0% among Hispanic females

Adults and Older Adults

Anthropometric Measures

Total[68]

Mean anthropometric measures for all adults and older adults ages 20 years and older are:

- Mean body weight: 185.0 lbs
- Mean height: 167.9 cm
- Mean waist circumference: 100.5 cm
- Body mass index (BMI): 29.6 kg/m^2

Sex[68]

- Among adults and older adults ages 20 years and older, mean body weight, waist circumference, and BMI are described in **Table 6**.

Table 6. Mean Body Weight, Waist Circumference, and Body Mass Index (BMI) among Adults and Older Adults Ages 20 Years and Older by Sex

Sex	Body Weight (lbs)	Waist Circumference (cm)	BMI (kg/m^2)
Males	199.8	102.9	29.4
Females	170.8	98.4	29.8

lbs = pounds
cm = centimeters
kg/m^2 = kilograms per meters squared

Household food security category[2]

- Among adults and older adults ages 20 years and older, mean body weight, waist circumference, and BMI are described in **Table 7**.

Table 7. Mean Body Weight, Waist Circumference, and Body Mass Index (BMI) Among Adults and Older Adults Ages 20 Years and Older by Household Food Security Category

Household Food Security Category	Body Weight (lbs)	Waist Circumference (cm)	BMI (kg/m^2)
Full	183.9	100.0	29.3
Marginal	188.5	101.5	30.5
Low	187.6	102.4	30.7
Very low	190.3	102.3	30.8

lbs = pounds
cm = centimeters
kg/m^2 = kilograms per meters squared

Current household SNAP participation status[2]

- Among adults ages 20 years and older, mean body weight, waist circumference, and BMI are described in **Table 8**.

Table 8. Mean Body Weight, Waist Circumference, and Body Mass Index (BMI) Among Adults and Older Adults Ages 20 Years and Older by Current Household Supplemental Nutrition Assistance Program (SNAP) Participation Status

Current SNAP Participation Status	Body Weight (lbs)	Waist Circumference (cm)	BMI (kg/m^2)
SNAP participants	187.0	102.0	30.7
SNAP nonparticipants	184.7	100.3	29.5

lbs = pounds
cm = centimeters
kg/m^2 = kilograms per meters squared

Underweight

Total[69]

The total prevalence of underweight among adults and older adults is 1.6 percent.

Age[69]

- The age-adjusted prevalence of underweight is 2.4 percent among adults ages 20-39 years, 1.6 percent among adults ages 40-59 years, and 0.5 percent among older adults 60 years and older.

Sex[69]

- The prevalence of underweight is 1.3 percent among males and 2.0 percent among females.

Overweight, Obesity, and Severe Obesity

Total[2,89]

- Among adults and older adults ages 20 years and older, the prevalence of overweight, obesity, and severe obesity are 31.7 percent, 41.1 percent, and 8.5 percent, respectively.
- The age-adjusted prevalence of obesity among adults and older adults was significantly higher in 2017-2018 (42.4 percent) compared to 1999-2000 (30.5 percent).
- The age-adjusted prevalence of severe obesity was significantly higher in 2017-2018 (9.2 percent) compared to 1999-2000 (4.7 percent).

Age[2,57]

- Age-adjusted prevalence of obesity is 39.8 percent in adults ages 20-39 years, 44.3 percent in adults ages 40-59 years, and 41.5 percent in older adults ages 60 years and older.
- Age-adjusted prevalence of obesity is significantly higher for males ages 40-59 years (45.9 percent) than males ages 60 years and older (38.4 percent).
- Prevalence of severe obesity is 9.7 percent among ages 20-39 years, 10.7 percent among ages 40-59 years, and 6.1 percent among ages 60 years and older.

Sex[57]

- Prevalence of obesity is 42.1 percent in females and 41.6 percent in males.
- The age-adjusted prevalence of severe obesity in adults ages 20 years and older is significantly higher among females (11.7 percent) than males (6.6 percent).

Race and/or ethnicity[57]

- Prevalence of obesity is 41.4 percent for non-Hispanic White adults, 49.9 percent for non-Hispanic Black adults, 16.1 percent for non-Hispanic Asian adults, and 45.6 percent for Hispanic adults.
    - Prevalence of obesity is significantly lower in non-Hispanic Asian adults compared to any other racial and/or ethnic group.
    - Prevalence of obesity is significantly higher in non-Hispanic Black adults compared to any other racial and/or ethnic group.
- Prevalence of obesity is significantly lower in non-Hispanic Asian males (17.6 percent) compared to non-Hispanic White males (43.1 percent), non-Hispanic Black males (40.4 percent), and Hispanic males (45.2 percent).
- Prevalence of obesity is 39.6 percent for non-Hispanic White females, 57.9 percent for non-Hispanic Black females, 14.5 percent for non-Hispanic Asian females, and 45.7 percent for Hispanic females.
    - Prevalence of obesity is significantly lower in non-Hispanic Asian females compared to females of any other racial and/or ethnic group.
    - Prevalence of obesity is significantly higher in non-Hispanic Black females compared to females of any other racial and/or ethnic group**.**

Family income relative to the federal poverty level[57]

- Prevalence of obesity is 43.9 percent for adults with family income ≤130 percent of the FPL, 46.5 percent for adults with family income 130 percent through 350 percent FPL, and 39.0 percent for adults with family income >350 percent of FPL.
- Prevalence of obesity is significantly higher in adults with family income 130 percent through 350 percent FPL than adults with family income >350 percent FPL.
- There are no significant differences in prevalence of obesity for males by family income.
- Prevalence of obesity is significantly lower for females with family income >350 percent (35.5 percent) than females at other family income levels (47.9 percent for income ≤130 percent FPL, 48.8 percent for income 130 percent through 350 percent FPL).
    - Among those with family income ≤130 percent of the FPL, prevalence of obesity is significantly higher for females (47.9 percent) than males (38.6 percent).

Education[57]

- Prevalence of obesity in significantly lower in adults with a college degree or above (34.2 percent) compared to adults with less than a high school diploma (40.1 percent) and with a high school diploma or some college (46.4 percent).
- Among males, prevalence of obesity is significantly lower among those with a college degree or greater (36.3 percent) and those with less than a high school diploma (35.3 percent) than those with a high school diploma or some college (45.9 percent).
- Among females, prevalence of obesity is significantly lower in those with a college degree or greater (32.2 percent) than for females with less than a high school diploma (45.3 percent) and females with a high school diploma or some college (46.8 percent).

Country of birth[70]

- Prevalence of obesity among adults ages 20 years and older is 44.3 percent for those born in the United States and 32.2 percent for those born outside the United States.

Health insurance status[70]

- Prevalence of obesity is 43.0 percent among adults ages 20 years and older who are insured and 37.7 percent among adults who are uninsured.
- Prevalence of obesity is 41.5 percent among adults ages 20 years and older who have private insurance and 47.4 percent among adults who have public insurance.

Self-reported diabetes status[70]

- Among adults ages 20 years and older, prevalence of obesity is 67.7 percent for those with self-reported diabetes and 39.0 percent for those without self-reported diabetes.

Household food security category[2]

- Among adults and older adults ages 20 years and older, the prevalence of overweight, obesity, and severe obesity by current household food security category are described in **Table 9**.

Table 9. Prevalence of Overweight, Obesity, and Severe Obesity Among Adults and Older Adults Ages 20 Years and Older by Household Food Security Category

Household Food Security Category	Overweight	Obesity	Severe Obesity
Full	32.8%	39.1%	7.2%
Marginal	29.4%	46.3%	10.5%
Low	29.6%	47.4%	12.0%
Very low	26.5%	47.1%	12.9%

Current household SNAP participation status[2]

- Among adults and older adults ages 20 years and older, the prevalence of overweight, obesity, and severe obesity by current household SNAP participation status are described in **Table 10**.

Table 10. Prevalence of Overweight, Obesity, and Severe Obesity Among Adults and Older Adults Ages 20 Years and Older by Current Household Supplemental Nutrition Assistance Program (SNAP) Participation Status

Current SNAP Participation Status	Overweight	Obesity	Severe Obesity
SNAP participants	28.9%	46.4%	12.0%
SNAP nonparticipants	32.2%	40.4%	7.9%

Cardiovascular Health

LDL Cholesterol

Children and Adolescents

Total[2]

- The prevalence of high LDL cholesterol among children and adolescents ages 12-19 years is 4.8 percent and varies by sociodemographic groups, as described below.

Household food security category[2]

- The prevalence of high LDL cholesterol in children and adolescents in households with very low food security is 11 percent and for those in households with full food security is 3.3 percent.

Current household SNAP participation status[2]

- The prevalence of high LDL cholesterol among children and adolescents currently participating in SNAP is 6.8 percent and among those not currently participating in SNAP is 4.1 percent.

Adults and Older Adults

Total[2]

- The prevalence of high LDL cholesterol among adults and older adults ages 20 years and older is 58.5 percent.

Age and sex[2]

- The prevalence of high LDL cholesterol among females ages 20 years and older is 58.7 percent and among males is 58.3 percent.
- The prevalence of high LDL cholesterol among males by age group is:
    - Ages 20-39 years: 54.6%
    - Ages 40-59 years: 72.8%
    - Ages 60 years and older: 46.5%
- The prevalence of high LDL cholesterol among females by age group is:
    - Ages 20-39 years: 46.9%
    - Ages 40-59 years: 72.4%
    - Ages 60 years and older: 57.2%

Race and/or ethnicity[2]

- The prevalence of high LDL cholesterol by race and/or ethnicity is:
    - Non-Hispanic White adults: 58.7%
    - Non-Hispanic Black adults: 49.7%
    - Non-Hispanic Asian adults: 60.5%
    - Hispanic adults: 61.9%

Household food security category[2]

- The prevalence of high LDL cholesterol among adults ages 20 years and older by household food security is:
    - Full food security: 59.5%
    - Marginal food security: 59.2%
    - Low food security: 62.5%
    - Very low food security: 63.9%

Current household SNAP participation status[2]

- Among adults ages 20 years and older, the prevalence of high LDL cholesterol among those currently participating in SNAP is 61.4 percent and among those not currently participating in SNAP is 59.9 percent.

HDL Cholesterol

Children and Adolescents

Total[2]

- The prevalence of low HDL cholesterol among children and adolescents ages 12-19 years is 14 percent.

Sex[2]

- The prevalence of low HDL cholesterol among males is 19.1 percent and among females is 8.6 percent.

Race and/or Hispanic origin[2]

- The prevalence of low HDL cholesterol among children and adolescents ages 12-19 years by race and/or ethnicity is:
  - Non-Hispanic White adults: 15.8%
  - Non-Hispanic Black adults: 7.0%
  - Non-Hispanic Asian adults: 9.7%
  - Hispanic adults: 4.5%

BMI status[2]

- The prevalence of low HDL cholesterol among children and adolescents ages 12-19 years by BMI status is:
  - BMI of 18.5-24.9 kg/m^2: 8.5%
  - BMI of 25-29.9 kg/m^2: 17.2%
  - BMI of 30 kg/m^2 or more: 27.8%

Household food security category[2]

- The prevalence of low HDL cholesterol among children and adolescents ages 12-19 years by household food security is:
  - Full food security: 12.0%
  - Marginal food security: 16.7%
  - Low food security: 15.6%
  - Very low food security: 17.6%

Current household SNAP participation status[2]

- The prevalence of low HDL cholesterol among children and adolescents ages 12-19 years by current SNAP participation status is:
  - SNAP participants: 15.8%
  - SNAP nonparticipants: 12.8%

Adults and Older Adults

Total[72]

- The prevalence of low HDL cholesterol among adults ages 20 years and older is 17.2 percent.

- The prevalence of low HDL cholesterol was significantly lower in 2017-2018 (16.0 percent) compared to 2007-2008 (22.2 percent).

Age[72]

- The prevalence of low HDL cholesterol among adults ages 20-39 years is 17.6 percent, among ages 40-59 years is 18.5 percent, and among ages 60 years and older is 14.6 percent.

Sex and age[72]

- The prevalence of low HDL cholesterol among males ages 20 years and older is significantly higher (26.7 percent) than among females (8.5 percent).
- Among females, the age-adjusted prevalence of low HDL cholesterol adults among ages 20-39 years is 10.3 percent, among ages 40-59 years is 7.8 percent, and among ages 60 years and older is 6.4 percent.
- Among males, the age-adjusted prevalence of low HDL cholesterol among adults ages 20-39 years is 25.0 percent, among ages 40-59 years is 29.6, percent and among ages 60 and older is 24.6 percent.

Race and/or Hispanic origin[72]

- The age-adjusted prevalence of low HDL cholesterol is significantly lower in non-Hispanic Black adults (11.9 percent) compared to non-Hispanic White adults (16.6 percent), non-Hispanic Asian adults (15.8 percent), and Hispanic adults (21.9 percent).
- The age-adjusted prevalence of low HDL cholesterol is significantly higher in Hispanic adults than any other race and/or ethnicity.
- The age-adjusted prevalence of low HDL cholesterol is significantly higher among males than females across all race and Hispanic-origin groups.

Household food security category[2]

- The prevalence of low HDL cholesterol among adults ages 20 years and older by household food security is:
    - Full food security: 15.1%
    - Marginal food security: 21.3%
    - Low food security: 22.8%
    - Very low food security: 24.8%

Current household SNAP participation status[2]

- The prevalence of low HDL cholesterol among adults ages 20 years and older currently participating in SNAP is 22.6 percent and not currently participating in SNAP is 16.3 percent.

Total Cholesterol

Total[72]

- Among adults and older adults, the age-adjusted prevalence of high total cholesterol is 11.4 percent.

Age[72]

- The age-adjusted prevalence of high total cholesterol is significantly higher among adults ages 40-59 years (15.7 percent) compared with those ages 20-39 years (7.5 percent) and 60 years and older (11.4 percent).

- Older adults ages 60 years and older have a significantly higher prevalence of high total cholesterol than adults ages 20-39 years.

Sex[72]

- The age-adjusted prevalence of high total cholesterol among adults ages 20 years and older is 10.5 percent among males and 12.1 percent among females.

Race and/or Hispanic origin[72]

- The age-adjusted prevalence of high total cholesterol by race and or/ethnicity is:
  - Non-Hispanic White adults: 11.7%
  - Non-Hispanic Black adults: 10.0%
  - Non-Hispanic Asian adults: 11.6%
  - Hispanic adults: 10.9%

Triglycerides

Total[2]

- The prevalence of high triglycerides among adults and older adults ages 20 years and older is 20.6 percent.

Age[2]

- The prevalence of high triglycerides among those ages 20-39 years is 15.5 percent, among ages 40-59 years is 25.9 percent, and among ages 60 years and older is 20.8 percent.

Household food security category[2]

- The prevalence of high triglycerides among adults ages 20 years and older by household food security is:
  - Full food security: 19.3%
  - Marginal food security: 22.6%
  - Low food security: 27.2%
  - Very low food security: 22.0%

Current household SNAP participation status[2]

- The prevalence of high triglycerides among adults ages 20 years and older currently participating in SNAP is 22.4 percent and not currently participating in SNAP is 20.4 percent.

Hypertension

Children and Adolescents

Total[2]

- The total prevalence of hypertensive blood pressure among children and adolescents ages 8-17 years is 5.1 percent.

Household food security category[2]

- The prevalence of hypertension among children and adolescents ages 8-17 years is 5.4 percent for those with full household food security and 3.5 percent for those with low household food security.
- Estimates for marginal and very low food security do not meet NCHS Data Presentation Standards for Proportions.

Current household SNAP participation status[2]

- The prevalence of hypertension among children and adolescents ages 8-17 years currently participating in SNAP is 6.1 percent and among those not currently participating in SNAP is 5.0 percent.

Adults and Older Adults

Total[2,74]

- The prevalence of hypertension among the total population is 48.1 percent. The age-adjusted prevalence is 45.4 percent.

Age[74]

- The age-adjusted hypertension prevalence is significantly lowest among adults ages 18-39 years (23.4 percent), higher for adults ages 40-59 years (52.4 percent), and highest for those ages 60 years and older (74.1 percent).

Sex[74]

- The age-adjusted prevalence of hypertension among adults ages 18 years and older is significantly higher among males (48.7 percent) than females (41.2 percent).
- There were significant differences among males, with age-adjusted prevalence higher in 1999-2000 (51.7 percent), lower in 2013-2014 (45.2 percent), and higher again in 2017-2018 (51.0 percent).
- Among females, there was no significant difference in age-adjusted prevalence in 1999-2000 compared to 2017-2018.

Race and/or Hispanic origin (NHANES)[74]

- The age-adjusted prevalence of hypertension is significantly higher among non-Hispanic Black adults (57.1 percent) than among non-Hispanic White (43.6 percent) or Hispanic (43.7 percent) adults.

Race and/or ethnicity (NHIS)[75]

- The prevalence of diagnosed hypertension among adults ages 18 years and older, by racial and/or ethnic group is:
    - Non-Hispanic Black or African American, single race: 34.4%
    - American Indian or Alaska Native and White: 29.9%
    - Non-Hispanic White, single race: 27.4%
    - Non-Hispanic Asian, single race: 21.1%
    - Hispanic/Latino, any race: 19.7%
    - Non-Hispanic American Indian or Alaska Native, single race: 19.1%
    - Mexican or Mexican American, all races: 18.6%
    - Black or African American and White: 17.8%
    - Non-Hispanic Native Hawaiian or Other Pacific Islander, single race: 14.5%
- The prevalence of diagnosed hypertension is 34.4 percent among non-Hispanic Black/African American adults, 27.4 percent among non-Hispanic White adults, 21.1 percent among non-Hispanic Asian adults,

19.7 percent among Hispanic/Latino adults of any race, 19.1 percent among non-Hispanic American Indian or Alaska Native adults, and 14.5 percent among non-Hispanic Native Hawaiian or Other Pacific Islander adults.

Family income relative to the federal poverty level[57]

- The age-adjusted prevalence of hypertension is significantly lower among adults with family income >350 percent of the FPL (43.1 percent) compared to adults with family income >130 percent through 350 percent of the FPL (46.6 percent). Age-adjusted prevalence is 47.3 percent among adults with family income ≤130 percent of the FPL.

Education[74]

- Age-adjusted hypertension prevalence is significantly lower among adults who are college graduates (38.5 percent) compared to adults with less than a high school education (47.0 percent) and adults with a high school or some college education (50.5 percent).

BMI status[57]

- Age-adjusted hypertension prevalence is significantly different between BMI groups. Age-adjusted prevalence is 57.7 percent among adults with a BMI of >30 kg/m^2, 40.6 percent among adults with a BMI of 25.0 to 29.9 kg/m^2, and 31.1 percent among adults with BMI of 18.5 to 24.9 kg/m^2.

Country of birth[73]

- The age-adjusted prevalence of hypertension is 45.7 percent among adults who were born in the United States and 42.7 percent among adults who were born outside the United States.

Health insurance status[73]

- The age-adjusted prevalence of hypertension in adults ages 18-64 years is 38.3 percent for those with health insurance and 37.9 percent for those without health insurance. Age-adjusted prevalence is 36.3 percent for those with private insurance and 44 percent for those with public insurance.

Self-reported diabetes status[73]

- The age-adjusted prevalence of hypertension is 72 percent among adults with self-reported diabetes and 42.3 percent among adults without self-reported diabetes.

Household food security category[2]

- The prevalence of hypertension is 48.6 percent among adults with full food security, 45.5 percent among adults with marginal food security, 45.6 percent among adults with low food security, and 47.2 percent among adults with very low food security.

Current household SNAP participation status[2]

- The prevalence of hypertension among adults and older adults currently participating in SNAP is 48.8 percent and among those not currently participating in SNAP is 47.7 percent.

Stroke

Total[76]

- The overall prevalence of stroke in adults and older adults is 3.1 percent.

Age and sex[76]

- Among adults and older adults ages 18 years and older, prevalence of stroke is 3.2 percent among males and 3.0 percent among females.
- The prevalence of stroke is 11.8 percent among older adults ages 75 years and older, 6.9 percent among older adults ages 65-74 years, 3.1 percent among adults ages 45-64 years, and 0.6 percent among adults ages 18-44 years.

Race and/or ethnicity[76]

- The prevalence of stroke among adults by racial and/or ethnic group is:
    - American Indian or Alaska Native and White: 7.6%
    - Non-Hispanic Black/African American, single race: 3.8%
    - Non-Hispanic White, single race: 3.1%
    - American Indian or Alaska Native, single race: 2.6%
    - Non-Hispanic Asian, single race: 2.3%
    - Hispanic/Latino, any race: 2.0%
    - Mexican or Mexican American: 1.8%
- Prevalence rates for adults who are 1) non-Hispanic Native Hawaiian or Other Pacific Islander, single race and 2) Black or African American and White do not meet NCHS standards of reliability.

Education[76]

- Among ages 25 years and older, the prevalence of stroke is 6.4 percent among adults without a high school diploma, 4.4 percent among adults with a high school diploma or General Educational Development (GED) and no college, 3.5 percent among adults with some college, and 2.1 percent among adults with a bachelor's degree or higher (2.1 percent).

Coronary Heart Disease

Total[77]

- Among adults and older adults ages 18 years and older, the prevalence of coronary heart disease is 4.9 percent.

Age[77]

- The prevalence of coronary heart disease is 19.7 percent among older adults ages 75 years and older, 12.3 percent among older adults ages 65-74 years, 4.1 percent among adults ages 45-64 years, and 0.5 percent among adults ages 18-44 years.

Sex[77]

- The prevalence of coronary heart disease is 6.4 percent in males and 3.6 percent in females.

Race and/or ethnicity[77]

- The prevalence of coronary heart disease by race and/or ethnicity is:
    - White, single race: 5.4%
    - American Indian or Alaska Native, single race: 4.6%
    - Black or African American, single race: 4.2%

  - Asian, single race: 3.8%
  - Hispanic or Latino, any race: 3.0%
- Prevalence estimates for adults who are 1) Native Hawaiian or Other Pacific Islander and 2) American Indian or Alaska Native and White do not meet NCHS standards of reliability.

Education[77]

- The prevalence of coronary heart disease is 8.2 percent among adults without a high school diploma, 6.3 percent among adults with a high school diploma or GED and no college, 5.6 percent among adults with some college, and 4.1 percent among adults with a college degree or higher.

Prediabetes and Diabetes

Prediabetes

Children and Adolescents

Total[2]

- The total prevalence of prediabetes among children and adolescents ages 12-19 years is 38.3 percent.

Race and/or ethnicity[2]

- For children and adolescents ages 12-19 years, the prevalence of prediabetes is 42.0 percent among those who are Hispanic and 39.8 percent among those who are non-Hispanic Black.
- Estimates for non-Hispanic Asian and non-Hispanic White groups do not meet the NCHS Data Presentation Standards for Proportions due to CI width >5 and relative CI width >130 percent.

Sex[2]

- The prevalence of prediabetes is 33.1 percent among females and 43.4 percent among males ages 12-19 years.

Household food security category[2]

- The prevalence of prediabetes among children and adolescents ages 12-19 years is 36.6 percent for households with full food security and for households with very low food security. The prevalence for children and adolescents in households with low food security is 42.2 percent.
- The estimates for households with marginal food security do not meet the NCHS Data Presentation Standards for Proportions due to CI width >30.

Current household SNAP participation status[2]

- The prevalence of prediabetes among children and adolescents currently participating in SNAP is 38.0 percent and among those not currently participating in SNAP is 38.6 percent.

Adults and Older Adults

Total[64]

- The prevalence of prediabetes is 38.0 percent, or an estimated 97.6 million adults and older adults.

Age[64]

- The prevalence of prediabetes is 27.8 percent among adults ages 18-44 years, 44.8 percent among adults ages 45-64 years, and 48.8 percent among older adults ages 65 years and older.

Sex[64]

- The prevalence of prediabetes is 41.9 percent among males and 34.3 percent among females.

Race and/or ethnicity[64]

- The prevalence of prediabetes is 39.2 percent among non-Hispanic Black adults, 38.7 percent among non-Hispanic White adults, 37.3 percent among non-Hispanic Asian adults, and 34.5 percent among Hispanic adults.

Diabetes

Children and Adolescents

Total[64-66]

- The prevalence of total diagnosed diabetes among children and adolescents ages 19 years and younger is 352,000 or 35 per 10,000 youths.
- According to cross-sectional data from the SEARCH for Diabetes in Youth Study (not nationally representative), the prevalence of diagnosed type 2 diabetes among children and adolescents ages 10-19 years was significantly higher in 2017 (0.67 per 1,000) compared to 2001 (0.34 per 1,000). This was a relative difference of 95.3 percent between the 2 time periods.

Age[66]

- The prevalence of diagnosed type 2 diabetes is 1.04 per 1,000 among ages 15-19 years and 0.29 per 1,000 among ages 10-14 years.

Race and/or ethnicity[66]

- The prevalence of diagnosed type 2 diabetes is 1.63 per 1,000 among American Indian children, 1.80 per 1,000 among Black children, 1.03 per 1,000 among Hispanic children, 0.59 per 1,000 among Asian or Pacific Islander children, and 0.20 per 1,000 among White children.

Sex[66]

Among ages 10-19 years, the prevalence of diagnosed type 2 diabetes is 0.82 per 1,000 for females and 0.51 per 1,000 for males.

Adults and Older Adults

Total[64]

- Among adults and older adults ages 18 years and older, the prevalence of total diabetes (defined as both diagnosed and undiagnosed diabetes) is 14.7 percent. The prevalence is 11.3 percent for diagnosed diabetes and 3.4 percent for undiagnosed diabetes.
- According to cross-sectional data, the total diabetes prevalence was significantly higher in NHANES 2017-March 2020 (13.2 percent) compared to NHANES 2001-2004 (10.3 percent). The prevalence of

diagnosed diabetes was also significantly higher in NHANES 2017-March 2020 (10.1 percent) compared to NHANES 2001-2004 (7.1 percent).

Age[57,64]

- The age-adjusted prevalence of total diabetes is significantly different between age groups and is lowest among adults ages 20-39 years (4.4 percent), followed by adults ages 40-59 years (16.4 percent), and highest among older adults ages 60 years and older (30.0 percent).
- The prevalence of diagnosed diabetes is 24.4% among older adults ages 65 years and older, 14.5 percent among adults ages 45-64 years, and 3.0 percent among adults ages 18-44 years.
- The prevalence of undiagnosed diabetes is 1.9 percent among adults ages 18-44 years, 4.5 percent among adults ages 45-64 years, and 4.7 percent among older adults ages 65 years and older.

Sex[57,64]

- Age-adjusted prevalence of total diabetes is significantly higher among males (16.3 percent) than females (13.4 percent).
- The prevalence of diagnosed diabetes is 12.6 percent among males and 2.8 percent among females.
- The prevalence of undiagnosed diabetes is 2.8 percent among males and 3.9 percent among females.

Race and/or ethnicity[57,64]

- The age-adjusted prevalence of total diabetes is significantly lower among non-Hispanic White adults (12.0 percent) compared to Hispanic adults (21.2 percent), non-Hispanic Asian adults (18.1 percent), and non-Hispanic Black adults (18.8 percent).
- The prevalence of diagnosed diabetes is 12.7 percent among non-Hispanic Black adults, 11.3 percent among non-Hispanic Asian adults, 11.1 percent among Hispanic adults, and 11.0 percent among non-Hispanic White adults.
- The prevalence of undiagnosed diabetes is 5.4 percent among non-Hispanic Asian adults, 4.7 percent among non-Hispanic Black adults, 4.4 percent among Hispanic adults, and 2.7 percent among non-Hispanic White adults.

Current household SNAP participation status[2]

- Total diabetes prevalence is 19.5 percent among current SNAP participants and 14.9 percent among current SNAP nonparticipants.
- The prevalence of diagnosed diabetes is 13.6 percent among current SNAP participants and 10.5 percent among current SNAP nonparticipants.
- The prevalence of undiagnosed diabetes is 5.9 percent among current SNAP participants and 4.4 percent among current SNAP nonparticipants.

Household food security category[2]

- Total diabetes prevalence among adults varies across household food security categories:
    - Full household food security: 14.8%
    - Marginal household food security: 17.6%
    - Low household food security: 18.6%
    - Very household low food security: 16.5%
- The prevalence of diagnosed diabetes ranges from 10.3 percent to 13.7 percent across household food security categories.

- Undiagnosed diabetes prevalence ranges from 3.1 percent to 6.0 percent across household food security categories.

Education[57]

- The age-adjusted prevalence of total diabetes is significantly different between education levels. Age-adjusted prevalence is highest among adults with less than high school diploma (22.7 percent), lower among adults with a high school diploma or some college (15.7 percent), and lowest among adults with a college degree or above (10.4 percent).
- Among those with a college degree or above, age-adjusted total diabetes prevalence is significantly different between males (14.2 percent) and females (6.8 percent) ages 20 years and older.

Family income relative to the federal poverty level[57]

- The prevalence of age-adjusted total diabetes is significantly different across groups for family income relative to the FPL. Age-adjusted diabetes prevalence is highest among adults with family income ≤130 percent of the FPL (20.0 percent), lower among adults with family income >130 percent through 350 percent of the FPL (17.7 percent), and lowest among adults with family income >350 percent of the FPL (10.9 percent).
- Total age-adjusted diabetes prevalence among those with family income >350 percent of the federal poverty level is significantly different between males (13.7 percent) and females (8.1 percent) ages 20 years and older.

BMI status[57]

- The age-adjusted prevalence of total diabetes is significantly different between BMI categories. Age-adjusted prevalence is lowest among adults with a BMI of 18.5 to 24.9 kg/m^2 (6.6 percent), higher among adults with a BMI of 25.0 to 29.9 kg/m^2 (10.3 percent), and highest among adults with a BMI of >30 kg/m^2 (23.3 percent).
- The age-adjusted total diabetes prevalence is significantly higher among males with a BMI of 25.0 to 29.9 kg/m^2 (12.7 percent) than females with a BMI of 25.0 to 29.9 kg/m^2 (7.4 percent).

Metropolitan residence[64]

- Age-adjusted diagnosed diabetes prevalence is 9.5 percent among adults in nonmetropolitan areas and 8.1 percent among adults in metropolitan areas.

Detailed race and/or ethnicity[64]

- Within the largest racial and/or ethnic groups examined, diagnosed diabetes prevalence is:
    - 16.0% among non-Hispanic American Indian or Alaska Native adults
    - 12.5% among non-Hispanic Black adults
    - 11.7% among non-Hispanic Native Hawaiian or Other Pacific Islander adults
    - 10.3% among Hispanic adults
    - 9.2% among non-Hispanic Asian adults
    - 8.5% among non-Hispanic White adults
- Within detailed Hispanic racial and/or ethnic groups, diagnosed diabetes prevalence is:
    - 13.3% among Puerto Rican adults
    - 11.1% among Mexican or Mexican American adults
    - 9.0% among Cuban adults, 7.3% among Central American adults
    - 7.2% among adults of other Hispanic, Latino, or Spanish origin

    - 5.0% among South American adults
- Within detailed non-Hispanic Asian racial and/or ethnic groups, diagnosed diabetes prevalence is:
    - 12.2% among Filipino adults
    - 10.8% among Asian Indian adults
    - 7.1% among Chinese adults
    - 6.8% among Japanese adults
    - 6.4% among Vietnamese adults
    - 6.1% among Korean adults

Metabolic Syndrome

Total[2]

- Among adults and older adults ages 20 years and older, the prevalence of metabolic syndrome is 39.7 percent.

Age[2]

- The prevalence of metabolic syndrome is 55.0 percent among ages 60 years and older, 42.8 percent among ages 40-59 years, and 23.7 percent among ages 20-39 years.

Sex[2]

- Among females and males, the prevalence of metabolic syndrome is 41.4 percent and 38.4 percent, respectively.

Race and/or ethnicity[2]

- The prevalence of metabolic syndrome by race and/or ethnicity is:
    - Non-Hispanic White adults: 40.3%
    - Hispanic adults: 39.7%
    - Non-Hispanic Black adults: 37.1%
    - Non-Hispanic Asian adults: 30.5%

Household food security category and age[2]

- The prevalence of metabolic syndrome is 38.1 percent among those with full food security, 41.4 percent among those with marginal food security, 43.7 percent among those with low food security, and 46.6 percent among those with very low food security.
    - Among ages 40-59 years, prevalence of metabolic syndrome is 55.0 percent for individuals with low food security compared to 37.7 percent for individuals with full food security.
    - Among ages 20-39 years, prevalence of metabolic syndrome is 29.4 percent for individuals with low food security and 20.5 percent for individuals with full food security.
- Some estimates for adults ages 40-59 years and most estimates for ages 60 years and older do not meet the NCHS Data Presentation Standards for Proportions due to CI width >30, and thus are not reported here.

Current household SNAP participation status and age[2]

- The prevalence of metabolic syndrome is 45.3 percent among current SNAP participants and 38.6 percent among current SNAP nonparticipants.

- Among current SNAP participants, the prevalence is 52.4 percent for adults ages 40-59 years and 30.1 percent for adults ages 20-39 years.
- Among current SNAP nonparticipants, the prevalence is 40.9 percent for adults ages 40-59 years and 22.8 percent for adults ages 20-39 years.
- The prevalence of metabolic syndrome is 53.5 percent among older adults ages 60 years and older who do not currently participate in SNAP. The estimate for current SNAP participants ages 60 years and older does not meet the NCHS Data Presentation Standards for Proportions due to CI width >30, and thus is not reported here.

Gestational and Pre-pregnancy Conditions

Gestational Diabetes

Total[81]

- In 2020, the overall rate of gestational diabetes was 7.8 per 100 live births (7.8 percent).
- According to cross-sectional data, the gestational diabetes rate was significantly higher in 2020 (7.8 percent) compared to 2016 (6.0 percent).

Age[81]

- The gestational diabetes rate is significantly different between maternal age groups:
  - 2.5% for females younger than age 20 years
  - 4.5% for females ages 20-24 years
  - 6.6% for females ages 25-29 years
  - 8.8% for females ages 30-34 years
  - 11.7% for females ages 35-39 years
  - 15.3% for females ages 40 years and older

Race and/or ethnicity[81]

- The gestational diabetes rate is significantly different between the broad racial and/or ethnic groups examined:
  - 6.5% for non-Hispanic Black females
  - 7.0% for non-Hispanic White females
  - 8.5% for Hispanic females
  - 10.6% for non-Hispanic Native Hawaiian or Other Pacific Islander females
  - 11.8% for non-Hispanic American Indian or Alaska Native females
  - 14.9% for non-Hispanic Asian females
- The gestational diabetes rate by detailed racial and/or ethnic groups (Hispanic, non-Hispanic Native Hawaiian or Other Pacific Islander, and non-Hispanic Asian) is:
  - Hispanic females
    - Mexican: 8.9%
    - Dominican: 8.5%
    - Puerto Rican: 8.4%
    - Cuban: 7.9%
    - Central and South American: 7.5%
  - Non-Hispanic Native Hawaiian or Other Pacific Islander females
    - Guamanian: 13.8%

        - Samoan: 12.3%
        - Hawaiian: 8.4%
    - Non-Hispanic Asian females
        - Asian Indian: 16.7%
        - Vietnamese and Filipino: 15.2%
        - Chinese: 13.5%
        - Korean: 11.7%

Pre-pregnancy BMI status[81]

- Gestational diabetes rates are significantly different between pre-pregnancy BMI categories. The gestational diabetes rate is 3.7 percent among females with a BMI of <18.5 kg/m^2, 4.6 percent among females with a BMI of 18.5-24.9 kg/m^2, 7.6 percent among females with a BMI of 25.0 to 29.9 kg/m^2, and 12.6 percent among females with a BMI of >30 kg/m^2.

Gestational Hypertension

Total[82]

- The overall prevalence of gestational hypertension is 84.3 per 1,000 live births.

Age[82]

- The prevalence of gestational hypertension for each maternal age group is:
    - Younger than age 20 years: 87.6
    - Ages 20-24 years: 85.9
    - Ages 25-29 years: 82.3
    - Ages 30-34 years: 81.1
    - Ages 35-40 years: 86.5
    - Ages 40-54 years: 104.7

Race and/or ethnicity[82]

- The prevalence of gestational hypertension is 89.5 for non-Hispanic White females, 102.0 for non-Hispanic Black females, and 70.0 for Hispanic females.

Pre-Pregnancy Obesity

Total[83]

- The overall prevalence of pre-pregnancy obesity is 29.0 percent.

Maternal age[83]

- Prevalence of pre-pregnancy obesity is 20.5 percent for females younger than 20 years, 30.4 percent for females ages 20-29 years, 28.3 percent for females ages 30-39 years, and 30.4 percent for females ages 40 years and older.

Maternal race and/or ethnicity[83]

- Prevalence of pre-pregnancy obesity is 26.6 percent for non-Hispanic White females, 39.1 percent for non-Hispanic Black females, and 32.4 percent for Hispanic females.

Maternal education[83]

- Prevalence of pre-pregnancy obesity by maternal education is:
  - 36.5% for females with a high school education or less
  - 37.5% for females with some college education
  - 34.1% for females with an associate's degree
  - 21.5% for females with a bachelor's degree
  - 17.3% for females with a master's degree or higher

Osteoporosis and Low Bone Mass

Osteoporosis

Total[84]

- The age-adjusted prevalence of osteoporosis in adults and older adults ages 50 years and older is 12.6 percent.

Age[84]

- The age-adjusted prevalence of osteoporosis is significantly higher among older adults ages 65 years and older (17.7 percent) compared to adults ages 50-64 years (8.4 percent)

Sex[84]

- The total age-adjusted prevalence of osteoporosis is significantly higher in females (19.6 percent) compared to males (4.4 percent).
  - In adults ages 50-64 years, the age-adjusted prevalence of osteoporosis is 13.1 percent in females but may be unreliable in males due to relative CI width greater than 130 percent.
  - In older adults ages 65 years and older, age-adjusted prevalence is significantly higher in females (27.1 percent) compared to males (5.7 percent).
- Age-adjusted prevalence was significantly higher in 2017-2018 compared to 2007-2008 among females (19.6 percent vs. 14.0 percent) but was not significantly different among males (4.4 percent vs. 3.7 percent).

Race and/or Ethnicity[85]

- The age-adjusted prevalence of osteoporosis is significantly lower among non-Hispanic Black adults (6.8 percent) compared to non-Hispanic White adults (12.9 percent), non-Hispanic Asian adults (18.4 percent), and Hispanic adults (14.7 percent). There were no significant differences between age-adjusted prevalence in non-Hispanic White, non-Hispanic Asian, and Hispanic adults.

Low Bone Mass

Total[84]

- The age-adjusted prevalence of low bone mass in adults and older adults ages 50 years and older is 43.1 percent.
- Age-adjusted prevalence was not significantly different in 2017-2018 compared to cross-sectional data from 2007-2008 (43.1 percent vs. 43.0 percent).

Age[84]

- The age-adjusted prevalence of low bone mass is significantly higher among older adults ages 65 years and older (47.5 percent) compared to adults ages 50-64 years (39.3 percent).

Sex[84]

- The age-adjusted prevalence of low bone mass is significantly higher in females (51.5 percent) compared to males (33.5 percent).
- Among ages 50-64 years, the age-adjusted prevalence is significantly higher in females (50.3 percent) compared to males (27.5 percent).
- Among ages 65 years and older, the age-adjusted prevalence is significantly higher in females (52.9 percent) compared to males (40.7 percent).

Cancer

Breast Cancer

Incidence

Total[86]

- The age-adjusted incidence rate of female breast cancer is 137.4 per 100,000 people.
- In comparison, age-adjusted incidence rates were 127.7 in 2016 and 125.5 in 2011.

Age and sex[86]

- The age-adjusted incidence rate of female breast cancer is 50.1 in females younger than age 50 years, 290.7 in females ages 50-64 years, and 455.3 in females ages 65 years and older.

Race and/or ethnicity[86]

- The age-adjusted incidence rate of female breast cancer by race and/or ethnicity is:
    - 146.6 in non-Hispanic White females
    - 135.6 in non-Hispanic Black females
    - 131.0 in non-Hispanic American Indian and Alaska Native females
    - 125.5 in non-Hispanic Asian or Pacific Islander females
    - 111.1 in Hispanic and/or Latino females

Mortality

Total[86]

- The age-adjusted mortality rate of female breast cancer is 18.7 per 100,000 people.
- In comparison, age-adjusted mortality rates were 20.1 in 2017 and 21.3 in 2012.

Age and sex[86]

- The age-adjusted mortality rate of female breast cancer is 3.9 in females younger than 50 years, 31.7 in females ages 50-64 years, and 88.4 in females ages 65 years and older.

Race and/or ethnicity[86]

- The age-adjusted mortality rate of female breast cancer by race and/or ethnicity is:
  - 11.8 in non-Hispanic Asian or Pacific Islander females
  - 13.5 in Hispanic and/or Latino females
  - 17.2 in non-Hispanic American Indian and Alaska Native females
  - 18.8 in non-Hispanic White females, and 25.6 in non-Hispanic Black females

Colon and Rectal Cancer

Incidence

Total[86]

- The age-adjusted incidence rate of colon and rectal cancer is 37.5 per 100,000 people.
- In comparison, age-adjusted incidence rates were 37.7 in 2016 and 41.3 in 2011.

Age[86]

- The age-adjusted incidence rate of colon and rectal cancer is 9.5 among individuals younger than age 50 years, 73.5 among individuals ages 50-64 years, and 155.1 among individuals ages 65 years and older.

Sex[86]

- The age-adjusted incidence rate of colon and rectal cancer is 42.6 among males and 33.1 among females.

Race and/or ethnicity[86]

- The age-adjusted incidence rate of colon and rectal cancer by race and/or ethnicity is:
  - 31.3 among non-Hispanic Asian or Pacific Islander individuals
  - 35.3 among Hispanic and/or Latino individuals
  - 37.7 among non-Hispanic White individuals
  - 43.6 among non-Hispanic Black individuals
  - 58.6 among non-Hispanic American Indian or Alaska Native individuals

Mortality

Total[86]

- The age-adjusted mortality rate of colon and rectal cancer is 12.6 per 100,000 people.
- In comparison, age-adjusted mortality rates were 13.6 in 2017 and 14.7 in 2012.

Age[86]

- The age-adjusted mortality rate of colon and rectal cancer is 1.9 among individuals younger than age 50 years, 20.2 among individuals ages 50-64 years, and 65.2 among individuals ages 65 years and older.

Sex[86]

- The age-adjusted mortality rate of colon and rectal cancer is 15.0 among males and 10.6 among females.

Race and/or ethnicity[86]

- The age-adjusted mortality rate of colon and rectal cancer by race and/or ethnicity is:
  - 9.1 among non-Hispanic Asian or Pacific Islander individuals
  - 10.6 among Hispanic and/or Latino individuals
  - 12.7 among non-Hispanic White individuals
  - 16.0 among non-Hispanic Black individuals
  - 18.1 among non-Hispanic American Indian or Alaska Native individuals

Oral Health

Although the Committee is not specifically reviewing evidence on dietary patterns and oral health, the *Dietary Guidelines* typically includes information on the public health importance of oral health. Thus, oral health is described in this section.

Dental Caries

Children and Adolescents

Total[57]

- The prevalence of untreated or restored dental caries in children and adolescents ages 2-19 years is 46.0 percent.

Age[57]

- The prevalence of untreated or restored dental caries is significantly different between age groups. Prevalence is 22.0 percent in ages 2-5 years, 48.1 percent in ages 6-11 years, and 56.0 percent in ages 12-19 years.

Sex[57]

- The prevalence of untreated or restored dental caries is 47.5 percent in males and 44.5 percent in females.

Race and/or ethnicity[57]

- The prevalence of untreated or restored dental caries is significantly higher in Hispanic children and adolescents (54.5 percent) than among children and adolescents who are non-Hispanic Asian (46.6 percent), non-Hispanic White (42.7 percent), and non-Hispanic Black (41.7 percent).

Family income relative to the federal poverty level[57]

- The prevalence of untreated or restored dental caries in children and adolescents ages 2-19 years is significantly different between family income groups. Prevalence is highest among those with family income ≤130 percent of the FPL (53.5 percent), followed by those with family income >130 percent through 350 percent of the FPL (47.4 percent), and is lowest among those with family income >350 percent of the FPL (35.8 percent).

Adults and Older Adults

Age[87]

- The prevalence of untreated dental caries among adults ages 20-44 years is 25.9 percent.

- The prevalence of untreated dental caries among adults ages 45-64 years is 25.3 percent
- The prevalence of untreated dental caries among older adults ages 65 years and older is 20.2 percent.

Sex and age[87]

- The prevalence of untreated dental caries among adults ages 20-44 years is 28.4 percent in males and 23.5 percent in females.
- The prevalence of untreated dental caries among adults ages 45-64 years is 28.1 percent in males and 22.6 percent in females.
- The prevalence of untreated dental caries among older adults ages 65 years and older is 22.8 percent in males and 18.0 percent in females.

Race and/or ethnicity and age[87]

- For adults ages 20-44 years, the prevalence of untreated dental caries by race and/or ethnicity is:
    - Non-Hispanic Black or African American: 39.6%
    - Non-Hispanic White: 22.6%
    - Non-Hispanic Asian: 14.7%
    - Hispanic or Latino: 29.4% (Mexican origin: 30.0%)
- For adults ages 45-64 years, the prevalence of untreated dental caries by race and/or ethnicity is:
    - Non-Hispanic Black or African American: 40.8%
    - Non-Hispanic White: 22.5%
    - Non-Hispanic Asian: 13.9%
    - Hispanic or Latino origin: 28.5% (Mexican origin: 32.3%)
- For older adults ages 65 years and older, the prevalence of untreated dental caries by race and/or ethnicity is:
    - Non-Hispanic Black or African American origin: 39.3%
    - Non-Hispanic Asian only: 28.5%
    - Non-Hispanic White only: 16.9%
    - Hispanic or Latino origin: 30.8% (Mexican origin: 34.2%)

Family income relative to the federal poverty level and age[87]

- Among adults ages 20-44 years, the prevalence of untreated dental caries by family income is:
    - <100% of the FPL: 41.3%
    - 100-199% of the FPL: 34.2%
    - 200-399% of the FPL: 25.3%
    - ≥400% of the FPL: 10.4%
- Among adults ages 45-64 years, the prevalence of untreated dental caries by family income is:
    - <100% of the FPL: 52.1%
    - 100-199% of the FPL: 38.1%
    - 200-399% of the FPL: 29.3%
    - ≥400% of the FPL: 11.2%
- Among older adults ages 65 years and older, the prevalence of untreated dental caries by family income is:
    - <100% of the FPL: 40.2%
    - 100-199% of the FPL: 33.2%
    - 200-399% of the FPL: 17.4%
    - ≥400% of the FPL: 11.5%

Complete tooth loss

Total[57,88]

- The prevalence of complete tooth loss among older adults ages 65 years and older is 13.2 percent.
- The age-adjusted prevalence was significantly lower in 2017-2018 (13.1 percent) compared to 1999-2000 (29.9 percent).

Age[57,88]

- The prevalence of complete tooth loss is significantly different between age groups. Prevalence is 10.6 percent in ages 65-69 years, 10.8 percent in ages 70-74 years, and 17.3 percent in ages 75 years and older.
- The age-adjusted prevalence was significantly lower in 2017-2018 compared to 1999-2000 in both males (13.8 percent vs. 25.5 percent) and females (12.5 percent vs. 33.1 percent).

Race and/or ethnicity[57]

- The prevalence of complete tooth loss is higher in older adults who are non-Hispanic Black (21.0 percent) compared to those who are non-Hispanic White (12.3 percent). In Hispanic older adults, the prevalence is 18.3 percent.
- The prevalence estimate in non-Hispanic Asian older adults does not meet NCHS standards for reliability.

Family income relative to the federal poverty level[57]

- Among older adults with family income ≤130 percent of the FPL, the prevalence of complete tooth loss is 27.8 percent.
- Among older adults with family income >130 percent through 350 percent of the FPL, the prevalence is 16.8 percent.
- Among older adults with family income >350 percent of the FPL, the estimates do not meet the NCHS standards for reliability.

Education[57]

- The prevalence of complete tooth loss is significantly different between education groups. Prevalence is highest among older adults with less than a high school diploma (31.5 percent), lower among those with a high school diploma or some college (15.0 percent), and lowest among those with a college degree or above (2.7 percent).

Food Allergy

Total[67]

- The total, self-reported prevalence of food allergies for children ages 0-17 years during the past 12 months is 6.5 percent.
- For ages 0-4 years and 5-11 years, the prevalence is 5.8 percent. The prevalence is 7.8 percent for ages 12-17 years.

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- **CNPP**: Meghan Adler, MS, RDN; Hazel Hiza, PhD, RDN; Leigh Ann Richardson, PhD, MPH (contractor, Panum Telecom, LLC [a wholly owned subsidiary of Aretum]); Kelley Scanlon, PhD, RD
- **ODPHP:** Dennis Anderson-Villaluz, MBA, RD, LDN, FAND

The Data Analysis and Food Pattern Modeling Subcommittee members (Heather A. Eicher-Miller, PhD; Christopher A. Taylor, PhD, RDN, LD, FAND; Steven A. Abrams, MD; Sarah L. Booth, PhD; Carol Byrd-Bredbenner, PhD, RD, FAND; Teresa Fung, ScD, RD; Valarie Blue Bird Jernigan, DrPH, MPH; Sameera Talegawkar, PhD; Deirdre Tobias, ScD) were involved in identifying additional data analysis topics and needs, synthesizing analysis results, and writing conclusion statements for the Scientific Report.

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Appendix: Abbreviations

Table 11. List of Abbreviations

Abbreviation	Full name
AI	Adequate Intake
AMDR	Acceptable Macronutrient Distribution Range
ARS	Agricultural Research Service
BMI	body mass index
CDC	Centers for Disease Control and Prevention
CDRR	Chronic Disease Risk Reduction Intake
CNPP	Center for Nutrition Policy and Promotion
DRI	Dietary Reference Intakes
EAR	Estimated Average Requirement
EER	Estimated Energy Requirement
FNS	Food and Nutrition Service
FSRG	Food Surveys Research Group
FPL	federal poverty level
GED	General Educational Development
HDL	high density lipoprotein
HEI	Healthy Eating Index
HHS	United States Department of Health and Human Services
IHS	Indian Health Service
LDL	low density lipoprotein
NASEM	National Academies of Sciences, Engineering, and Medicine
NCI	National Cancer Institute
NCHS	National Center for Health Statistics
NEAB	Nutrition and Economic Analysis Branch
NGAD	Nutrition Guidance and Analysis Division

Abbreviation	Full name
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NIH	National Institutes of Health
NIS	National Immunization Surveys
NVSS	National Vital Statistics System
OASH	Office of the Assistant Secretary for Health
ODPHP	Office of Disease Prevention and Health Promotion
PRAMS	Pregnancy Risk Assessment Monitoring System
RDA	Recommended Dietary Allowance
SEER	Surveillance, Epidemiology, and End Results
SNAP	Supplemental Nutrition Assistance Program
UL	Tolerable Upper Intake Level
USDA	United States Department of Agriculture
WHO	World Health Organization
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
WWEIA	What We Eat in America