



Food Surveys Research Group
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Beverage Choices among Adults: What We Eat in America, NHANES 2017-2018

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Highlights

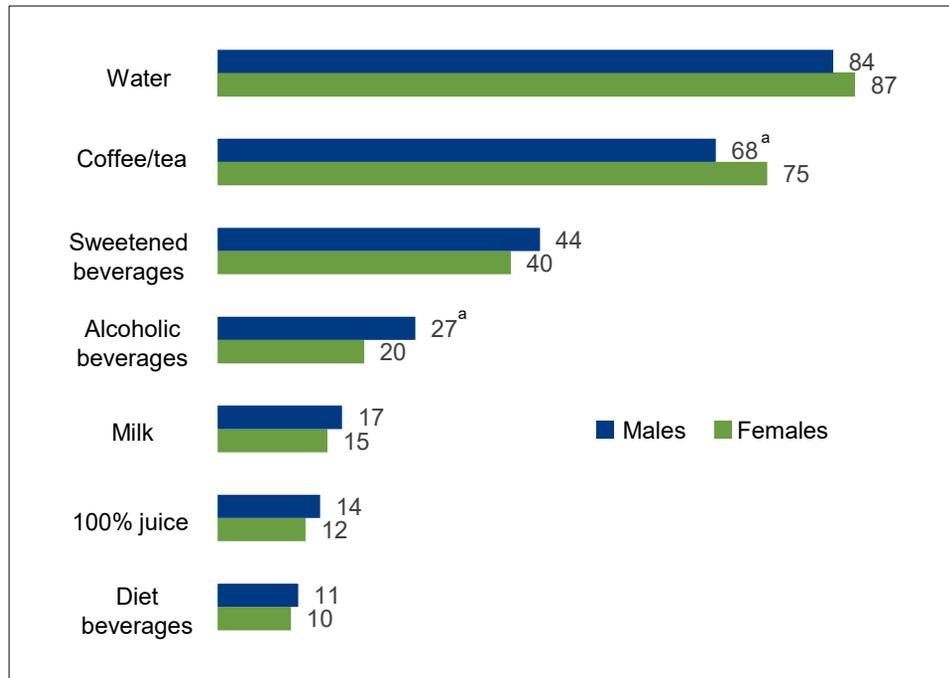
- Water was the most commonly consumed beverage by adults followed by coffee/tea and sweetened beverages, mostly in the form of soft drinks.
- Sweetened beverages were less likely to be consumed by non-Hispanic (NH) Asian and NH White adults than NH Blacks or Hispanics.
- On the intake day, males consumed 11 cups and females consumed 10 cups of beverages, of which about half was water.
- Adults 60 years and older drank about 2 cups less of beverages than younger adults.
- Beverages provided 17% of daily energy intake for adults, and 54% added sugar intake.
- Among adults, more than half of the calories provided by beverages were from alcoholic and sweetened beverages.

Beverages, a source of hydration, are an important contributor to energy and nutrients in the diet. This report updates the 2015-2016 (1) results on beverage consumption among U.S. adults, 20 years and older, using data from What We Eat in America, NHANES 2017-2018. For this report, beverages included liquids consumed as beverages and excluded liquids added to foods, such as milk to cereal.

What beverages did adults consume?

Water was the most commonly consumed beverage followed by coffee/tea (coffee being reported nearly twice as often as tea), and sweetened beverages, of which two-thirds were soft drinks (*data not shown*). Reports of beverage categories did not differ between males and females with the exception of coffee/tea and alcoholic beverages. Females were more likely to report coffee/tea and males more likely to report alcoholic beverages.

Figure 1. Percentage of adults who consumed beverages*, 2017-2018



* Beverage groups are defined on page 7

^a Significantly different from females, (p<0.01)

SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years



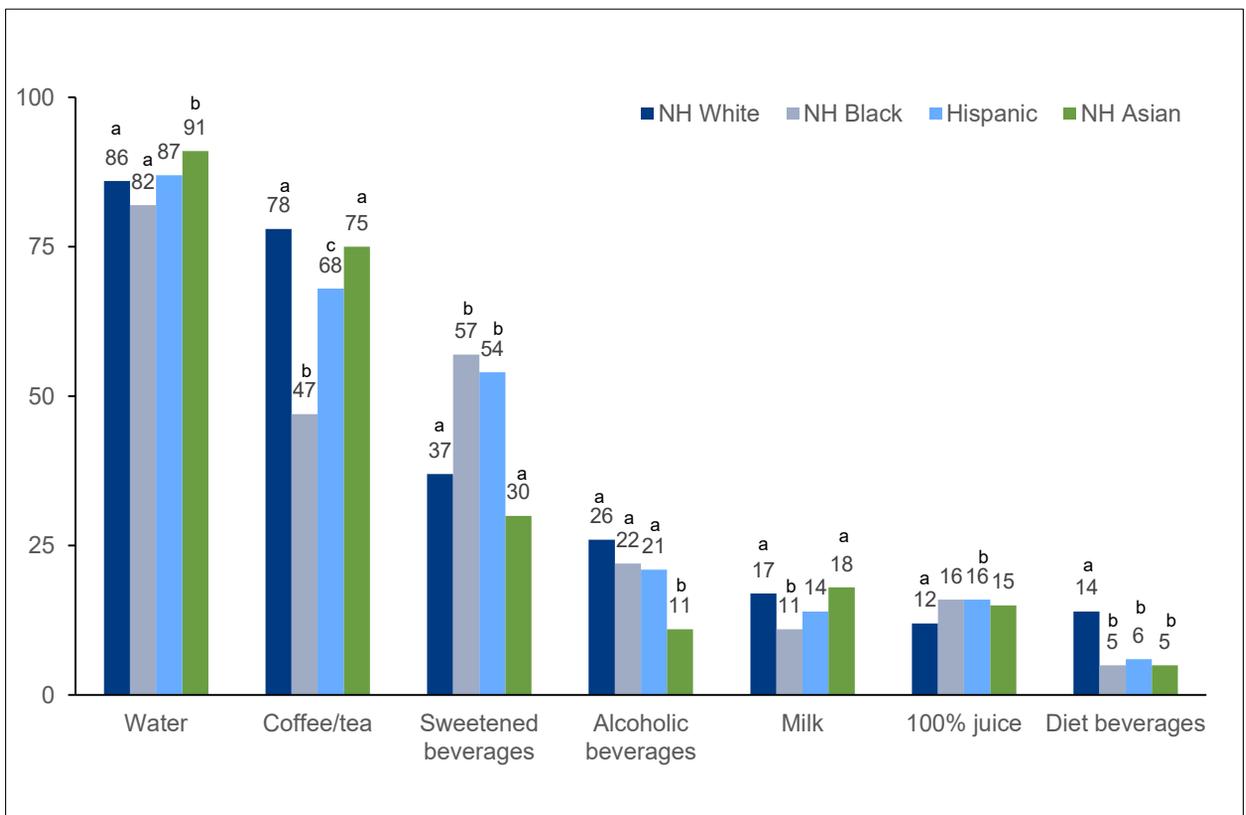
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Were there differences in beverage choice by race and Hispanic origin?

The percentage of adults consuming beverages within all specified beverage categories differed by race/Hispanic origin although overall beverage intake did not differ (*data not shown*). Non-Hispanic (NH) Asians and NH Whites were less likely to consume sweetened beverages than either NH Blacks or Hispanics, with the difference attributable to lower consumption of soft drinks by NH Whites and NH Asians (*data not shown*). Non-Hispanic (NH) Asians were about half as likely to consume alcoholic beverages as NH Whites and NH Blacks.

Figure 2. Percentage of adults consuming beverages by race/Hispanic origin, 2017-2018

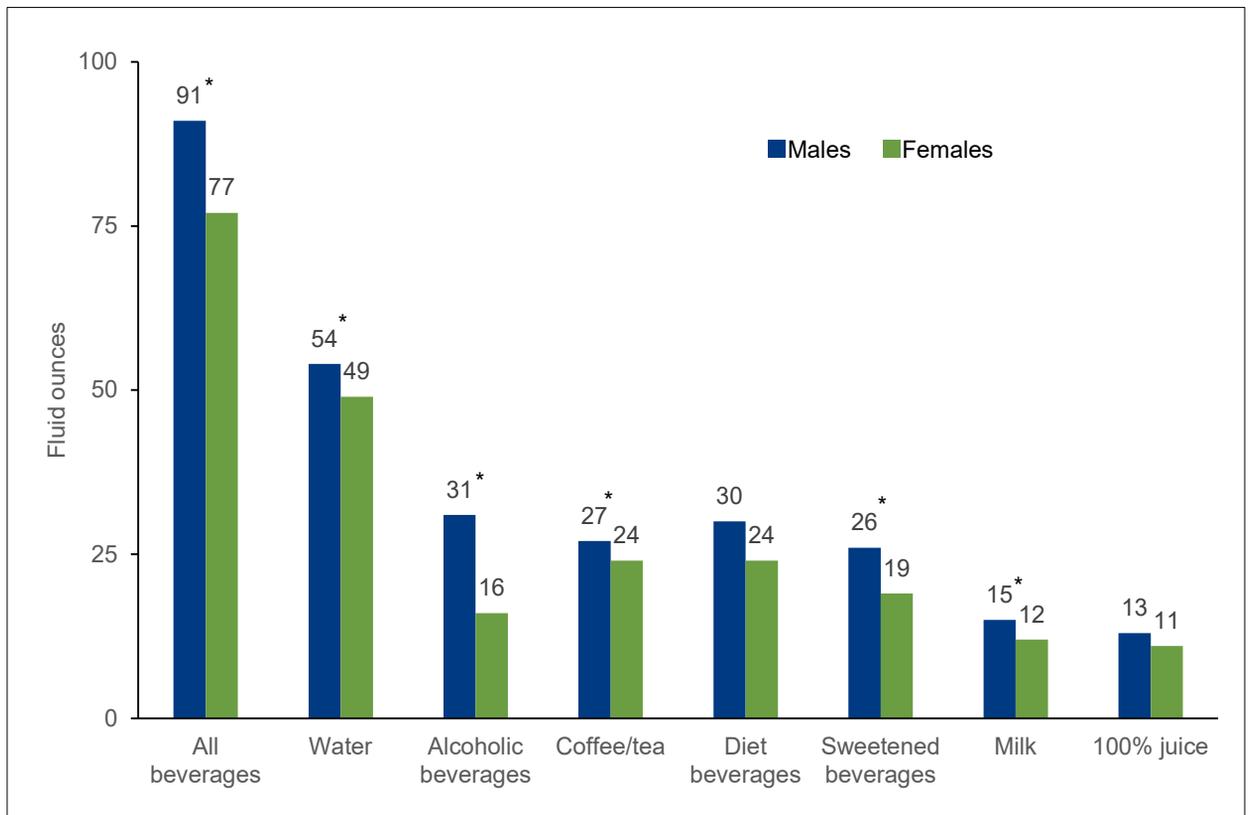


^{a,b,c} Within beverage category, percentages with different superscript letters are significantly different ($p < 0.01$)
 SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years

How much did adults drink in a day?

Overall, adults consumed 84 fl. oz. of beverages or approximately 10 ½ cups on the intake day, of which at least half was water (*data not shown*). Males consumed a greater amount of beverages overall than females, as well as more water, alcoholic beverages, coffee/tea, sweetened beverages, and milk. The largest differences in intake among gender were in the alcoholic beverage and sweetened beverage groups. Intake of beer was the primary difference in alcoholic beverage consumption with males consuming the equivalent of one 12-fl. oz. beer more than females (38 vs. 26 fl. oz.) and intake of sports and energy drinks was the primary difference in sweetened beverage intake with males consuming 7 fl. oz. more than females ($p<0.01$; *data not shown*).

Figure 3. Mean daily beverage intake among adults consuming each type, 2017-2018



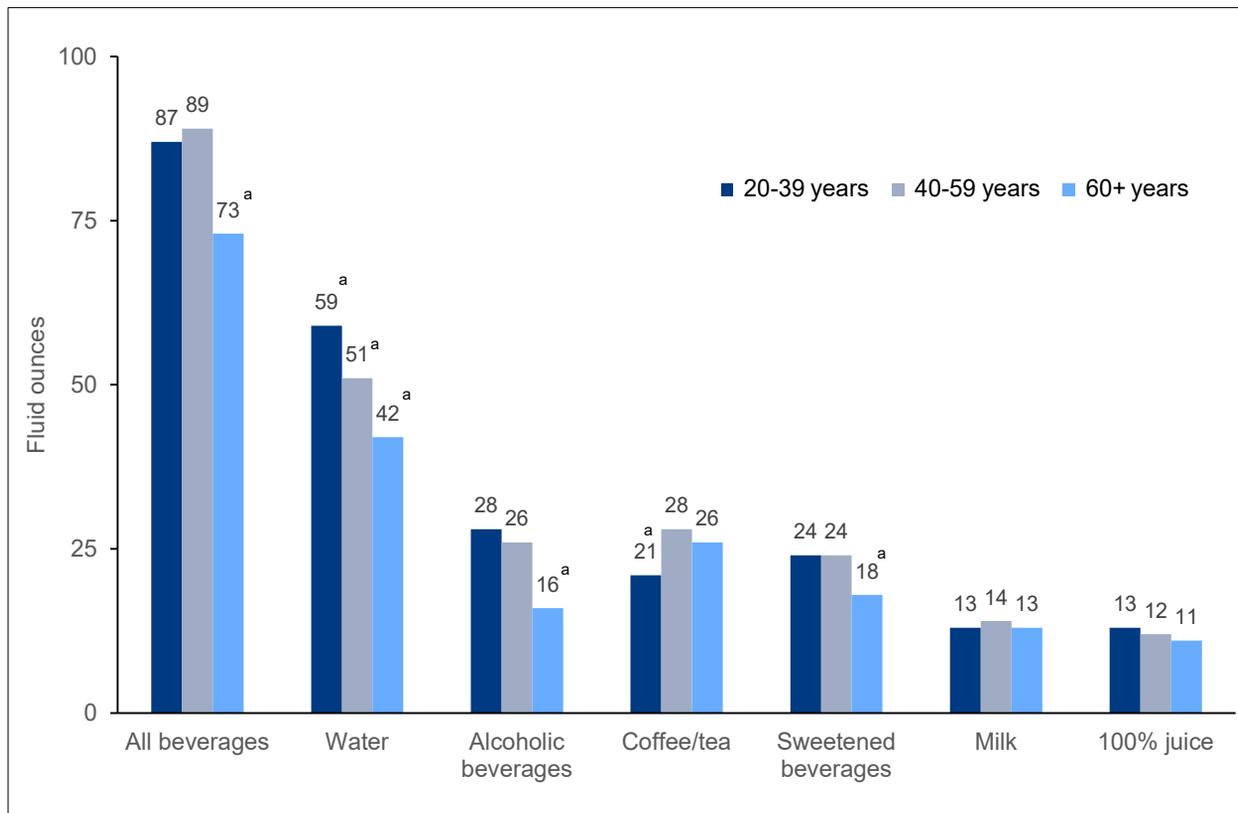
*Significantly different from females, ($p<0.01$)

SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years

Does beverage consumption vary by age?

Adults age 60 years and older drank approximately 2 cups less of total beverages than younger adults. Much of this overall difference was attributable to lower consumption of water, although adults 60 years and older also drank less alcohol and sweetened beverages than younger adults. Intake of beer was the primary difference in alcoholic intake with younger adults consuming 37 fl. oz. and adults age 60 years and older consuming 25 fl. oz. ($p < 0.01$; data not shown).

Figure 4. Mean daily beverage* intake among adults consuming each type by age, 2017-2018



*Results for diet beverages not presented due to small sample size

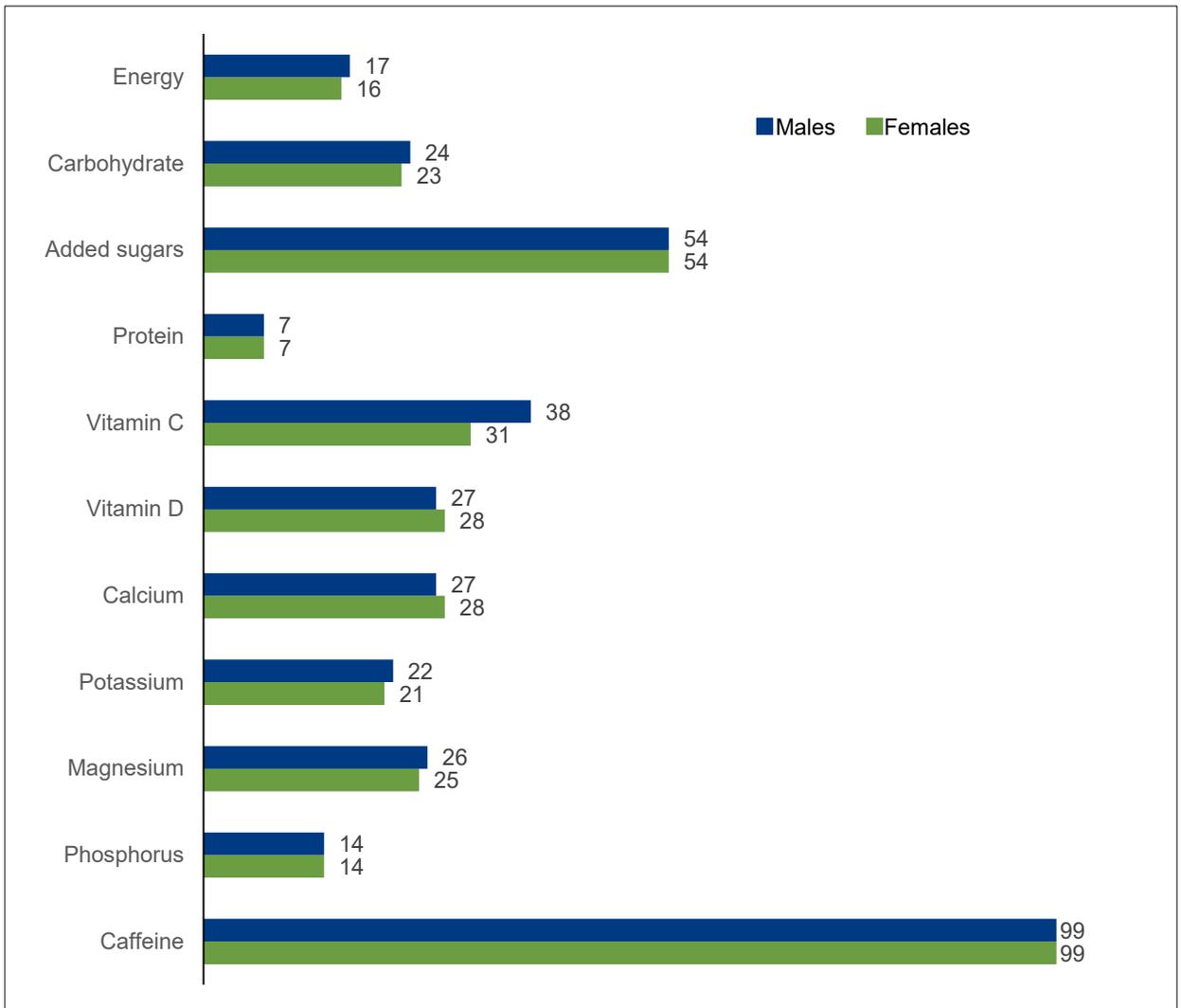
^a Significantly different than each of the other two age groups, ($p < 0.01$)

SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years

What percentage of daily nutrients came from beverages?

Among adults, beverages contributed 17% of daily energy. The contribution to added sugars was 54%. Beverages also contributed large amounts to daily intakes of select vitamins and minerals including one-third of vitamin C intake and approximately ¼ of the intake of vitamin D, calcium, potassium and magnesium. Nearly all caffeine intake for adults was attributable to beverages, with coffee and tea as the primary source (84%) followed by sweetened beverages (10%) (*data not shown*).

Figure 5. Percentage of mean daily energy and selected nutrient intakes contributed by beverages among adults, 2017-2018



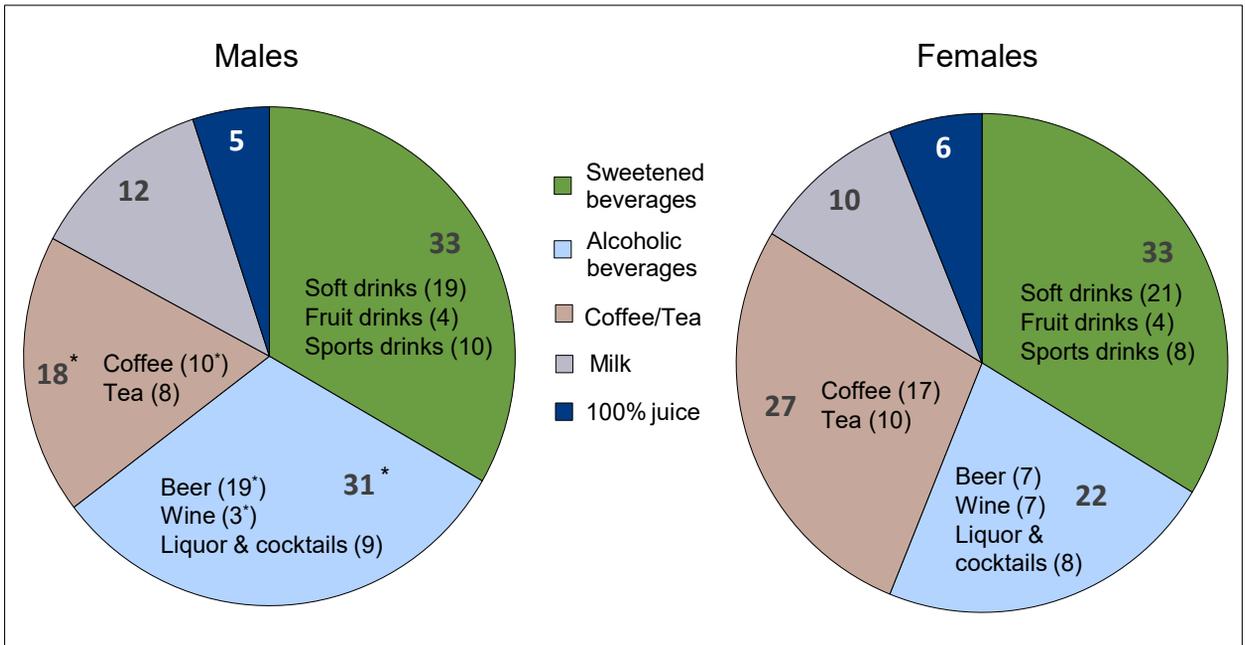
SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years

What types of beverages contributed the energy that adults consumed?

Mean daily energy intake from beverages was 422 kilocalories for males and 296 kilocalories for females which corresponded to 17% and 16% of total mean daily energy intake, respectively (*data not shown*). Sweetened beverages and alcoholic beverages combined accounted for over half of mean daily energy intake from beverages for both males and females.

When comparing by gender, males consumed a higher percentage of energy from alcoholic beverages than females, of which the majority came from beer (19% for males vs. 7% for females), although females consumed a greater percentage of calories from wine. Females also consumed more of their calories through coffee/tea.

Figure 6. Percent of daily beverage calories by beverage type among adults, 2017-2018



*Significantly different from females, (p<0.01)
 SOURCE: WWEIA, NHANES 2017-2018, day 1, individuals 20+ years

Definitions

Beverages: Beverages identified using WWEIA Food Categories including any additions to those beverages (e.g., sugar, milk) and excluded any beverages added to foods such as milk to cereal or water to soup.

Beverage Groups:

Milk: Plain and flavored milk, other milk drinks and milk substitutes.

100% Juice: 100% fruit and/or vegetable juice.

Coffee/tea: Regular and decaffeinated coffee or tea with additions such as milk, cream and/or sweeteners, and coffee and tea drinks, including ready-to-drink.

Diet beverages: Diet soft drinks, diet sport/energy drinks and other diet drinks that are low- and no-calorie-sweetened, containing 40 kcal or less per reference amount customarily consumed.

Alcoholic beverages: Beer, wine and spirits (liquors and cocktails).

Beer: Regular and light varieties of beer and malt beverages.

Wine: Table wine, wine spritzers, sangria, and sparkling wine.

Spirits: Distilled spirits, cordial or liqueurs, mixed drinks, and cocktails.

Sweetened beverages: Energy containing soft drinks, fruit drinks, and sports/energy drinks that contain more than 40 kcal per reference amount customarily consumed.

Soft drinks: Energy-containing drinks made with carbonated water.

Fruit Drinks: Energy-containing fruit and/or vegetable drinks that are not 100% juice.

Sports/energy drinks: Energy-containing sport/energy drinks, nutritional beverages and protein/nutritional powders consumed with a beverage, smoothies and grain drinks.

Water: Tap, bottled, flavored, carbonated and enhanced/fortified water.

Data Source

Estimates in this report are based on one day of dietary intake data collected in *What We Eat in America* (WWEIA), the dietary intake interview component of the National Health and Nutrition Examination Survey (NHANES), in 2017-2018. The study sample included 4,742 adults, age 20 and over (2,307 men and 2,435 women) with complete and reliable intakes. Only in the race-specific analysis, non-Hispanic individuals who were multi-racial or of a racial group other than those listed (236 adults) were excluded. Sample weights were applied in all analyses to produce nationally representative estimates. Dietary intake of beverages were collected from an in-person 24-hour recall using the interviewer-administered 5-step USDA Automated Multiple-Pass Method (2). Intakes of energy and nutrients were calculated using the 2017-2018 versions of USDA's Food and Nutrient Database for Dietary Studies (3). Intake of added sugars was estimated using the 2017-2018 Food Patterns Equivalents Database (4).

References

1. Moshfegh AJ, Garceau AO, Parker EA, and Clemens JC. Beverage Choices among Adults: *What We Eat in America*, NHANES 2015-2016. Food Surveys Research Group Data Brief No. 21. May 2019.
2. USDA Food Surveys Research Group. *AMPM - USDA Automated Multiple Pass Method*. <http://www.ars.usda.gov/nea/bhnrc/fsrg/ampm>. Updated July, 2020.
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