



Food Surveys Research Group  
Dietary Data Brief No. 21  
May 2019

# Beverage Choices among Adults: What We Eat in America, NHANES 2015-2016

Alanna J. Moshfegh, MS, RD; Anne O. Garceau, MS, RD;  
Elizabeth A. Parker, PhD, RD; John C. Clemens, MS

## Highlights

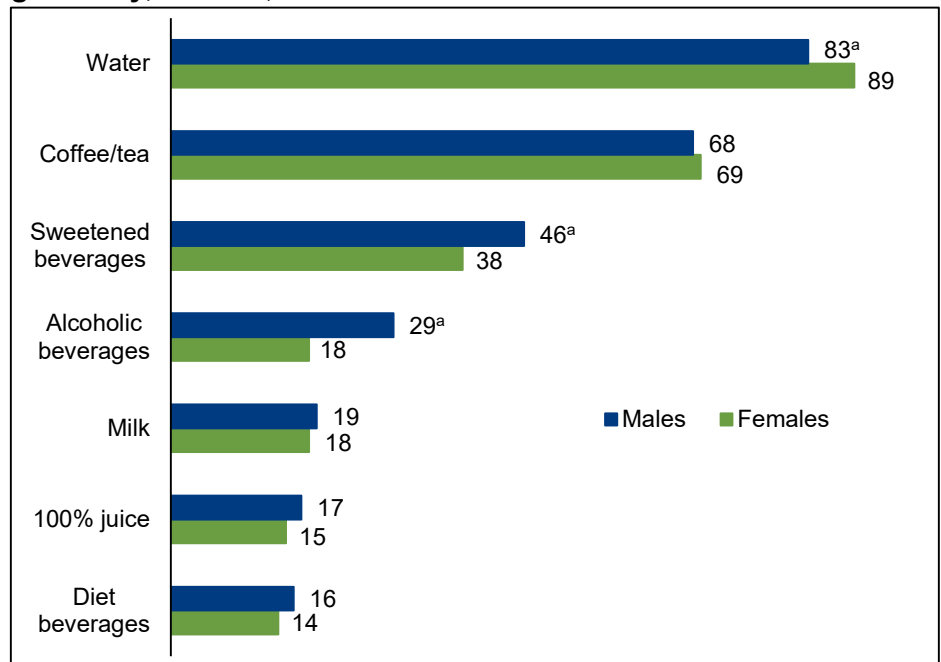
- After water, the most commonly consumed beverages were coffee and tea, and sweetened beverages, mostly in the form of soft drinks.
- On any given day, males consumed about 12 cups and females consumed about 10 cups of beverages, of which about half was water.
- Beverages provided nearly 1 out of every 6 calories of daily energy intake, and more than half of added sugar intake.
- Beverages provided about 1/3 of vitamin C intake and 1/4 of vitamin D, calcium, magnesium, and potassium intakes.
- More than half of the calories provided by beverages were from alcoholic and sweetened beverages.

Beverages, a source of hydration, also are an important contributor to energy and nutrients in the diet. This report presents results on types of beverages consumed and their contribution to dietary intake among U.S. adults, 20 years and older, during 2015-2016 by gender, age, and race/ethnicity.

## What beverages did adults consume?

After water, coffee/tea was the most frequently reported beverage group (coffee being reported twice as often as tea), followed by sweetened beverages, of which more than half were soft drinks (data not shown). For most beverage groups, men and women reported in equal proportion. For beverages groups where differences occurred, the largest was for alcoholic drinks. Specifically, beer was more likely to be reported by men (20%) compared to women (7%), and wine was more often reported by women (9%) than men (6%) (data not shown).

**Figure 1. Percentage of adults who consumed beverages\* on any given day, WWEIA, NHANES 2015-2016**



\* Beverage groups are defined on page 6

<sup>a</sup> Significantly different from females, (P<0.01)

SOURCE: What We Eat in America, NHANES 2015-2016, day 1, individuals 20+ years



U.S. DEPARTMENT OF AGRICULTURE  
Agricultural Research Service  
Beltsville Human Nutrition Research Center  
Food Surveys Research Group

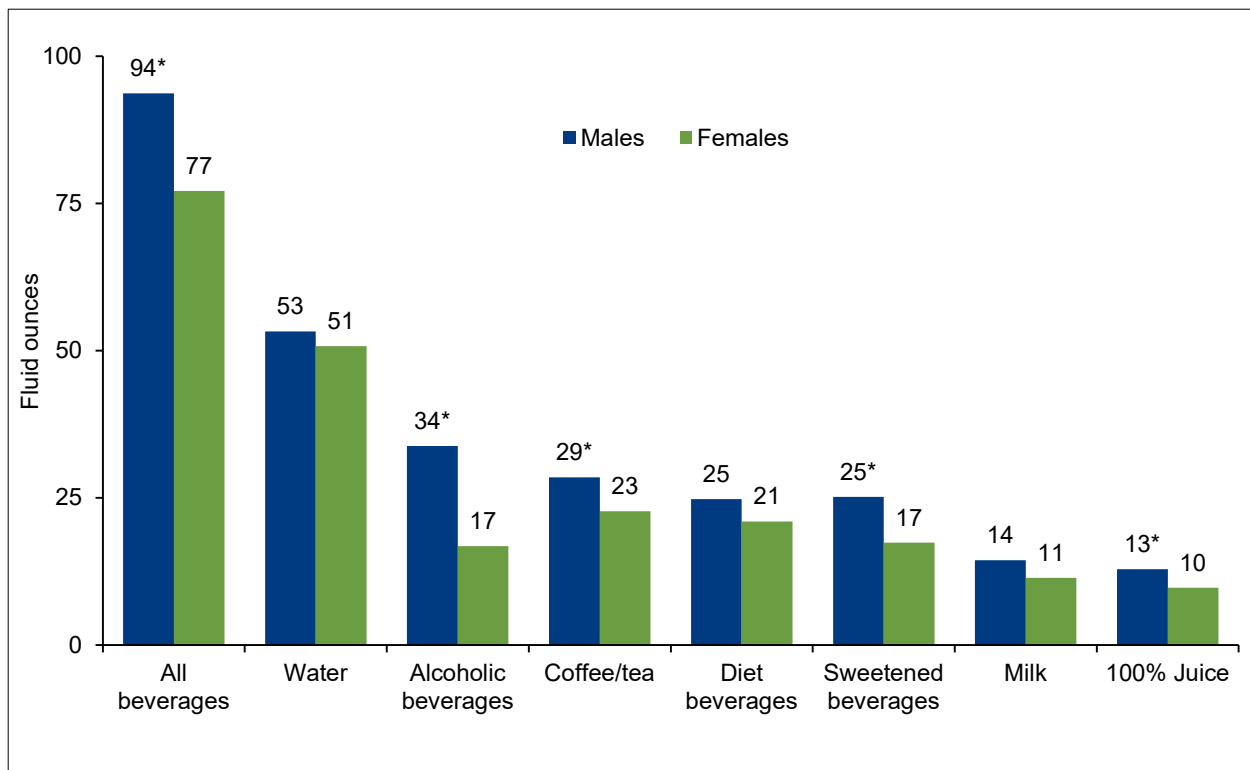
[www.ars.usda.gov/nea/bhnrc/fsrg](http://www.ars.usda.gov/nea/bhnrc/fsrg)

## How much did adults drink in a day?

Males and females consumed about 12 and 10 cups of beverages per day, respectively, of which more than half was water. Regardless of gender, adults consumed just over 6 cups of water on a given day. Following water, alcoholic beverages were consumed in the largest amounts. Males consumed the equivalent of about three 12-fl. oz. bottles of beer, whereas females consumed half that. However, females consumed more wine (9 fl. oz.) than males (6 fl. oz.) (data not shown). The greater intake of sweetened beverages by men was a result of drinking more soft drinks (23 fl. oz.), when compared to females (16 fl. oz.) (data not shown).

When drinking alcoholic beverages, non-Hispanic white, non-Hispanic black, and Hispanic adults drank similar amounts (27 fl. oz., 26 fl. oz., and 33 fl. oz., respectively), but twice as much as Asian adults (14 fl. oz.). This same trend was seen for sweetened beverages (non-Hispanic white: 23 fl. oz.; non-Hispanic black: 22 fl. oz.; Hispanic: 20 fl. oz.; Asian: 14 fl. oz.) (data not shown).

**Figure 2. Mean daily beverage intake among adults consuming each type, by gender**  
**WWEIA, NHANES 2015-2016**



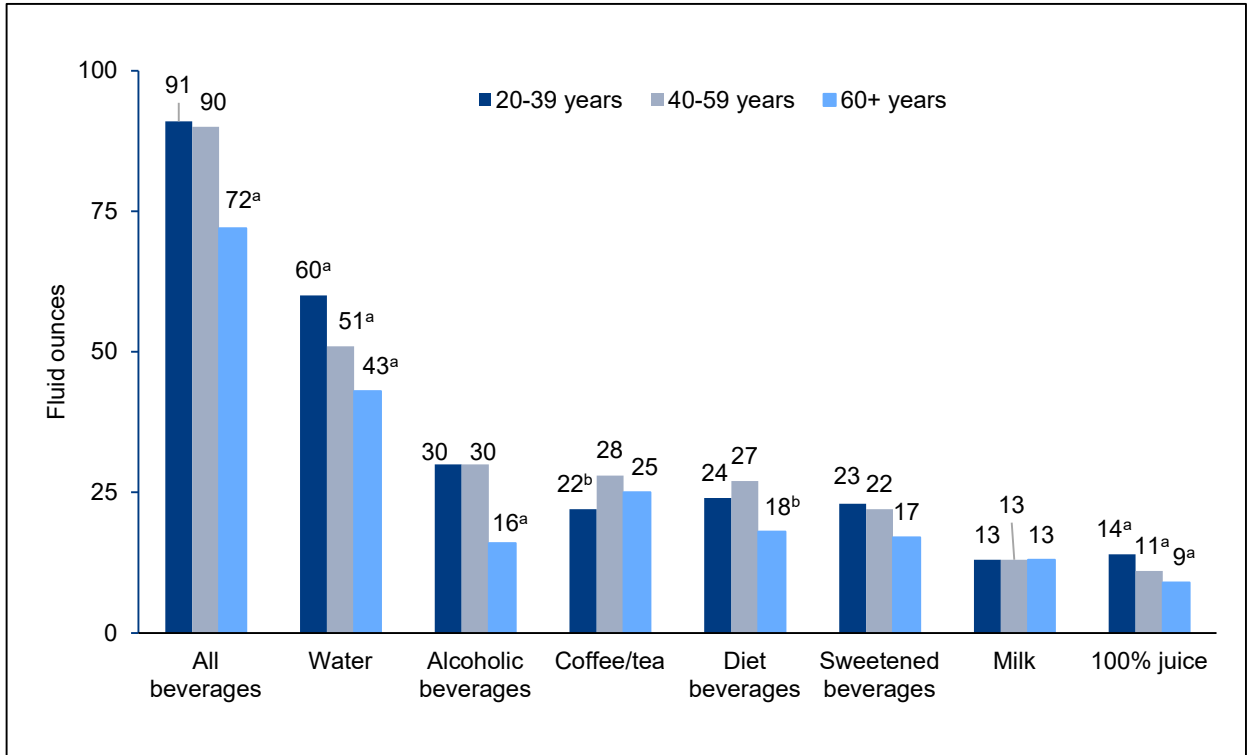
\*Significantly different from females, (p<0.01)

SOURCE: What We Eat in America, NHANES 2015-2016, day 1, individuals 20+ years

### Does beverage consumption vary by age?

Overall, adults 60 years and older drank about 2 less cups of beverages than younger adults, mostly due to drinking less water. Older adults also consumed less alcohol, which was attributable to lower beer intake. On average those 60 years or older drank about two 12-fl. oz. bottles of beer per day compared to younger adults who drank more than three bottles (data not shown).

**Figure 3. Mean daily beverage intake among adults consuming each type, by age, WWEIA, NHANES 2015-2016**



<sup>a</sup> Significantly different than each of the other two age groups, (p<0.01)

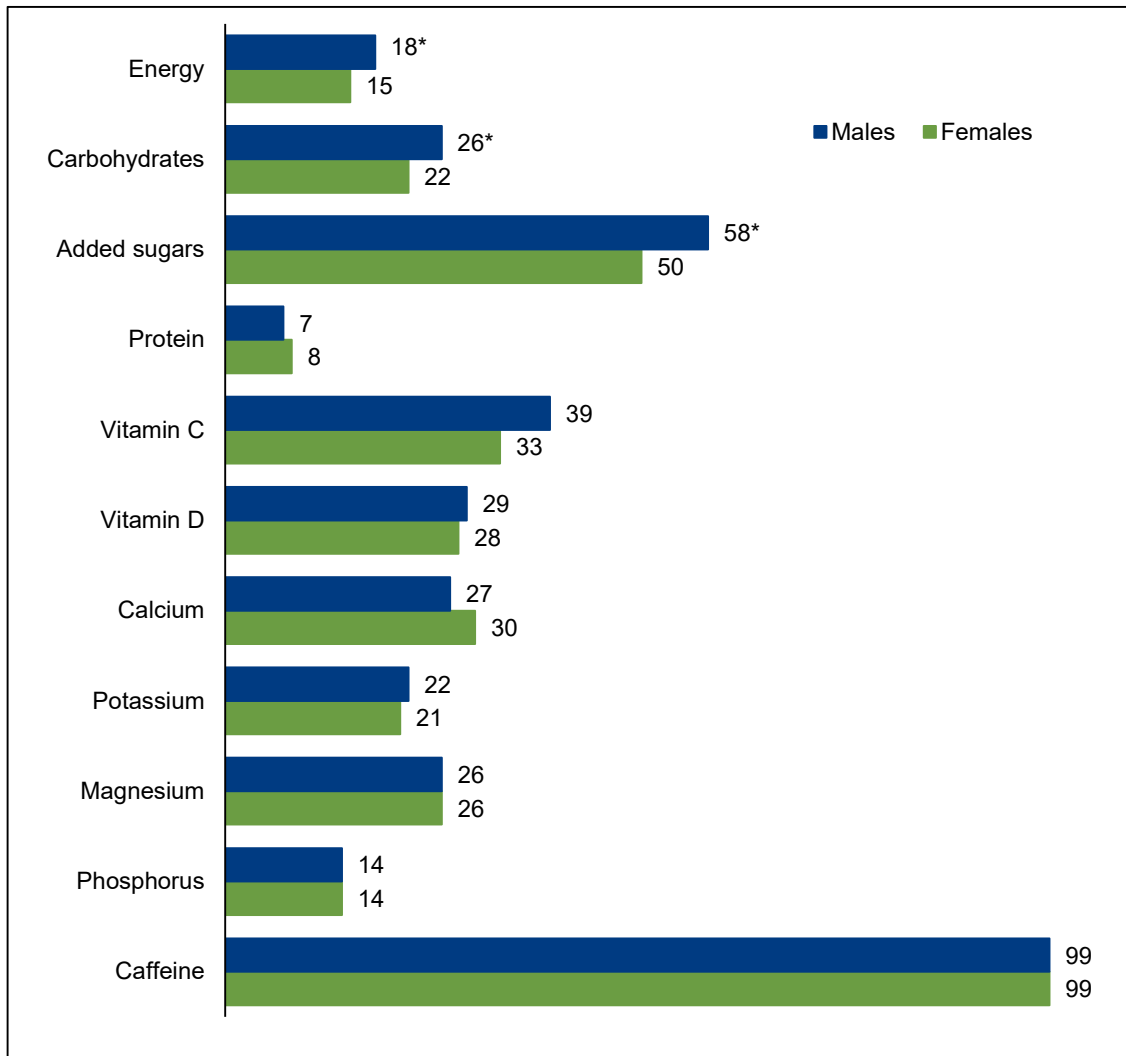
<sup>b</sup> Significantly different than age 40-59, (p<0.01)

SOURCE: What We Eat in America, NHANES 2015-2016, day 1, individuals 20+ years

## What percentage of daily nutrients came from beverages?

Beverages contributed 1 out of every 6 calories to mean daily energy intake. In relation to energy, beverages contributed an even greater percentage of certain nutrients, including more than half of added sugar intake,  $\frac{1}{3}$  of vitamin C intake, and about  $\frac{1}{4}$  of carbohydrates, vitamin D, calcium, potassium, and magnesium intakes. Males, as compared to females, obtained more of their energy, carbohydrates, and added sugars from beverages. Virtually all caffeine, for both men and women, were consumed through beverages.

**Figure 4. Percentage of mean daily energy and selected nutrient intakes contributed by beverages among adults, WWEIA, NHANES 2015-2016**



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

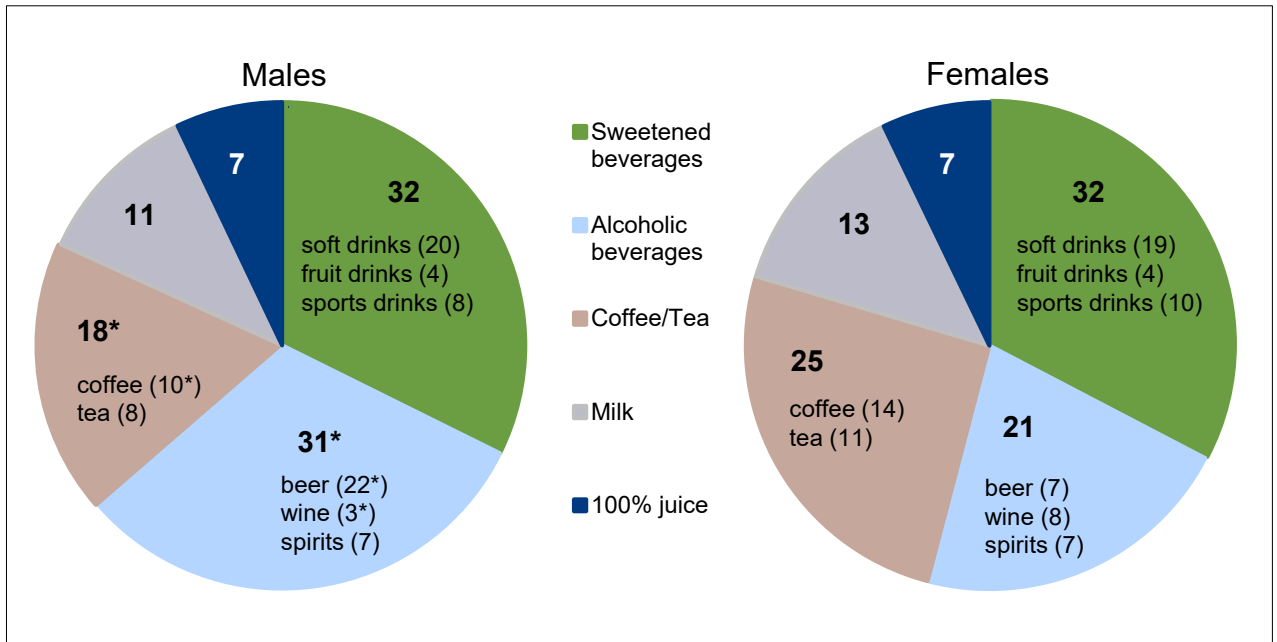
SOURCE: What We Eat in America, NHANES 2015-2016, day 1, individuals 20+ years

## What types of beverages contributed the energy that adults consumed?

The mean daily energy intake obtained from beverages was ~450 kilocalories for males and ~275 kilocalories for females (data not shown), which was 18% and 15%, respectively, of total mean daily energy intake. Sweetened beverages and alcoholic beverages contributed more than half of mean daily energy intake from beverages.

When comparing by gender, males consumed a higher percentage of energy from alcoholic beverages than females, of which the majority came from beer (22% 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 5. Percent of daily beverage calories by beverage type among adults, WWEIA, NHANES 2015-2016**



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

SOURCE: What We Eat in America, NHANES 2015-2016, day 1, individuals 20+ years

## Definitions

**Beverages:** Beverages identified using WWEIA Food Categories including any additions to those beverages (e.g., sugar, milk).

### Beverage Groups:

**Milk:** Plain and flavored milk, other milk drinks and milk substitutes (Excludes milk or milk substitutes added to alcoholic beverages, coffee, tea, and/or foods such as cereal).

**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 2015-2016. A study sample included 5017 adults, age 20 and over (2415 men and 2602 women) with complete and reliable intakes. 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.

## About the Authors

Alanna Moshfegh , Anne O. Garceau, and John C. Clemens are with the Food Surveys Research Group, Beltsville Human Nutrition Research Center, Agricultural Research Service, U.S. Department of Agriculture.

Elizabeth A. Parker is with the University of Maryland School of Medicine, Baltimore, MD.

## Suggested Citation

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.

## Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission. However, citation as to source is appreciated.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

