

# SNAP-Ed Toolkit

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## R5: Beverages

### Framework Component

Population Results – Trends and Reductions in Disparities

### Indicator Description

This indicator represents change in water and unhealthy beverage consumption and/or over-consumption of 100 percent fruit juice by youth over time, from year to year, of the low-income population of the state. Unlike [MT1](#) and [LT1](#) (Healthy Eating Behaviors), which measure increases in water intake and decreases in sugar-sweetened beverage intake attributed to SNAP-Ed series-based programs, R5 is intended to measure the proportion of the SNAP-Ed eligible population that is achieving the *Dietary Guidelines for Americans* recommendations. Thus, R5 measures water and sugar-sweetened beverage consumption status for low-income households surveyed within the state or area of focus. R5 is a population-level surveillance measure.

### Background and Context

This indicator of non-dairy beverages measures consumption or changes in consumption of non-caloric water, sugar-sweetened beverages, and limiting of excessive 100 percent juice intake. It is highly significant for obesity prevention. Soda, energy drinks, and sports drinks are the number four source of calories in the American population aged 2 and older; they are the number three source in the population aged 2–18 years. Together with sugar-sweetened fruit drinks, they contribute 46 percent of the added sugar in the American diet, contributing significant calories, but few nutrients. Although 100 percent fruit juice is considered a fruit-equivalent in the Dietary Guidelines for Americans, and some juices contain vitamin C, vitamin A, and calcium, they do not contain the fiber of whole fruits fiber. Excessive consumption of juice may contribute to obesity as it can be easy to not notice how much one is drinking. The American Academy of Pediatrics recommends children ages 1–6 should drink no more than 4–6 ounces/day of fruit juice, while youth ages 7–18 years old should have a limit of 8–12 ounces/day.<sup>1</sup> This is an appropriate indicator to use when SNAP-Ed in the program being evaluated provided a sufficient dose of R5 beverage intervention to expect behavior change that will last over an extended time period. Examples include Rethink Your Drink interventions; provider/parent education in early child care settings that include a strong component about appropriate beverages and portion sizes for preschool-age children; and PSE interventions to increase access to drinking water in schools.

# Outcome Measures

- R5a. Number or percentage of SNAP-Ed eligible persons who drink plain water (or, average cups consumed daily)
- R5b. Number or percentage of SNAP-Ed eligible persons who reduced their consumption of sugar-sweetened beverages (or, average cups consumed daily)
- R5c. Number or percentage of SNAP-Ed eligible persons who switched from fruit drink or juice drinks to 100 percent fruit juice
- R5d. Number or percentage of SNAP-Ed eligible persons who consumed less than 8 ounces of 100 percent fruit juice daily

# What to Measure

## Adults

- a. Number or percentage of adults who report drinking plain water
- b. Number or percentage of adults persons who report drinking soda and other sugar-sweetened beverages
- c. Number or percentage of adults who report drinking fruit drink or fruit juice drink or switching from these drinks to 100 percent fruit juice
- d. Number or percentage of adults who report drinking less than 8 ounces of 100 percent of fruit juice daily

## Children/Adolescents

- a. Number or percentage of children/adolescents who report drinking plain water
- b. Number or percentage of children/adolescents who report drinking soda and other sugar-sweetened beverages
- c. Number or percentage of children/adolescents who report drinking fruit drink or fruit juice drink or switching from these drinks to 100 percent fruit juice
- d. Number or percentage of children/adolescents who report drinking less than 8 ounces of 100 percent of fruit juice daily or the appropriate amount for age group

# Population

Youth (3rd grade and above) or Adults

# Surveys and Data Collection Tools

The Behavioral Risk Factor Surveillance System (BRFSS) is one national surveillance survey that can potentially collect sugar-sweetened beverage data from adults; however, that data module is optional for BRFSS, so it is not routinely asked and, when it is asked, the findings are not available on the interactive database. The Youth Risk Behavior Surveillance System (YRBSS) collects such data from high school–age youth, but it is administered every 2 years, and at least one state does not participate. As an alternative, evaluation data can be collected by 1) adding a module of questions like those listed below to a statewide survey

collecting population data that can identify the low-income segment of its sample, such as your state's BRFSS; 2) conducting a population-level 24-hour recall with your state SNAP-Ed population or another representative low-income population sample; or 3) conducting another type of annual regular data collection that includes these questions from either your total SNAP-Ed population or a representative random sample of it. The same question module should be used year-to-year for consistency. **ADULTS National Surveillance Surveys** [collapse title="Behavioral Risk Factor Surveillance System"] Sugar Sweetened Beverage Module 5 (national surveillance, every other year) [R5b] [https://www.cdc.gov/brfss/questionnaires/pdf-ques/2013-brfss\\_english.pdf](https://www.cdc.gov/brfss/questionnaires/pdf-ques/2013-brfss_english.pdf) (page 40) [https://www.cdc.gov/brfss/questionnaires/pdf-ques/2013\\_brfss\\_spanish.pdf](https://www.cdc.gov/brfss/questionnaires/pdf-ques/2013_brfss_spanish.pdf) (page 41)

- About how often do you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop.
- About how often do you drink sweetened fruit drinks, such as Kool-Aid, cranberry drink, and lemonade? Include fruit drinks you made at home and added sugar to.
  - *Response choices:* Number of times/day; times/week; or times/month, whichever is easiest for respondent

[/collapse] **Other Instruments** The following instruments can be used to collect statewide population data. [collapse title="University of California Cooperative Extension EFNEP Food Tracker"] Group 5-step Multiple Pass 24-hour Dietary Recall [R5a,b,c,d] (Instrument is available in English, Spanish, Russian, Hmong, Chinese, also instructional video and other materials) <https://townsendlab.ucdavis.edu/> Note: Any multiple pass method in which all data collectors have been trained to collect the information consistently using a standardized, documented protocol that includes probing is acceptable. It is recommended that, if at all possible, visual aids, such as portion size guides (paper or online), measuring cups, dishes/glasses, and/or food models be used. [/collapse] [collapse title="Beverage Intake Questionnaire (BEVQ-15)"] (15 items) [R5a,b,c,d] Virginia Polytechnic Institute and State University

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3379009/pdf/nihms379195.pdf> For each item:

- In the past month indicate how often you drank the following beverages.
  - *Response choices:* Never or less than 1 time per week; 1 time per week; 2–3 times per week; 4–6 times per week; 1 time per day; 2+ times per day; 3+ times per day
- Indicate approximately how much you drank each time.
  - *Response choices:* Less than 6 fl. oz. (¾ cup); 8 fl. oz. (1 cup); 12 fl. oz. (1½ cups); 16 fl. oz. (2 cups); more than 20 fl. oz. (2½ cups)

Beverage line items include, among others, water, juice drinks, soda, 100% juice, sweet tea, energy and sports drinks, and room to add respondent-specific beverages [/collapse] [collapse title="Share Our Strength Cooking Matters for Adults Survey"] (39 items; 2 questions apply to R5), English [R5a,b]

[https://cookingmatters.org/sites/default/files/Survey.CMA\\_.English.2017.Esurvey.Updated.pdf](https://cookingmatters.org/sites/default/files/Survey.CMA_.English.2017.Esurvey.Updated.pdf)

- How often do *you* typically drink a bottle or glass of water? (Count tap, bottled and sparkling water.)
- How often do *you* typically drink a can, bottle, or glass of regular soda or pop, sports drink, or energy drink? (Do not count diet or zero-calorie drinks.)
  - *Response choices:* Not at all; Once a week or less; More than once a week; Once a day; More than once a day

[/collapse] [collapse title="Food Behavior Checklist/Lista de hábitos alimenticios<sup>2</sup>"] University of California Cooperative Extension [R5b] <https://townsendlab.ucdavis.edu/>

- Do you drink fruit drinks, sports drinks, or punch?
-

Do you drink regular soda?

- *Response choices:* no; yes, sometimes; yes, often; yes, everyday

[/collapse] **CHILDREN & YOUTH National Surveillance Surveys** [collapse title="Youth Risk Behavior Survey"] (national surveillance, every other year) [R5b]

<https://www.cdc.gov/healthyouth/data/yrbs/questionnaires.htm> (2015 questionnaire Q.77, page 17)

- During the past 7 days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not count diet soda or diet pop.)
  - *Response choices:* I did not drink soda or pop; 1 to 3 times in the past 7 days; 4 to 6 times in the past 7 days; 1 time/day; 2 times/day; 3 times/day; 4 or more times/day

[/collapse] **Other Instruments** The following instruments can be used to collect statewide population data. [collapse title="Fred Hutchinson Cancer Research Center Beverage and Snack Questionnaire 2 (BSQ2)<sup>3</sup>"] (13 beverages; 23 total items including snacks and FV) [R5a,b,c]

<https://sharedresources.fhcrc.org/documents/beverage-and-snack-questionnaire>

- How often did you drink these beverages in the past week?
  - *Response choices:* Never or less than 1 time per week; 1 time per week; 2–3 times per week; 4–6 times per week; 1 time per day; 2–3 times per day; 4+ times per day

Beverage line items include unflavored water, flavored water, soda, fruit drinks, sports drinks, energy drinks, and 100% juice among others. Instrument covers in-school and out-of-school time separately for each item.

[/collapse] [collapse title="California Youth Nutrition and Physical Activity Survey<sup>4</sup>"] condensed version of the School and Physical Activity Nutrition project [SPAN] survey) English and Spanish; 4th–8th graders [R5a,b,c]

<https://www.cdph.ca.gov/programs/cpns/Pages/Chapter1RequiredSurveysforImpactOutcomeEvaluation.aspx>

Yesterday, did you drink...

- Fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. *Do not count* punch, sports drinks, or other fruit-flavored drinks.
- Any water, such as from a glass, a bottle, or a water fountain?
- Any punch, sports drinks or other fruit-flavored drinks? *Do not count* 100% fruit juice or diet drinks?
- Any regular (not diet) sodas or soft drinks?
  - *Responses:* No, I didn't drink any; Yes, I drank xx 1 time up to I drank xx 3 or more times for punch, etc. and soda.; Yes, I drank xx 1 time up to I drank xx 5 or more times for 100% juice and water

[/collapse] [collapse title="EFNEP Youth Nutrition Education Surveys"] 6th–8th, 9th–12th graders [R5b]

<https://www2.ag.purdue.edu/programs/hhs/efnep/Pages/Resource-Evaluation.aspx>

- Yesterday, how many times did you drink sweetened drinks like soda, fruit-flavored drinks, sports drinks, energy drinks, and vitamin water? Do not include 100% fruit juice.
  - *Response choices:* none; 1 time; 2 times; 3 or more times

[/collapse] Additional evaluation tools to measure R5 can be found in the [SNAP-Ed Library](#).

## Key Glossary Terms

[glossary]Fruit drink or juice drink[/glossary] [glossary]Population-based data collection[/glossary]

[glossary]SNAP-Ed eligible persons[/glossary] [glossary]Sugar-sweetened beverages[/glossary]

## Additional Resources or Supporting Citations

Sweetened juice products with low levels of juice, are categorized as sugar-sweetened beverages instead of fruit juice because they are mainly water with added sugars. The package label will show the percent of juice, such as “contains 25% juice” or “100% fruit juice,” in a beverage that implies it is a fruit or vegetable product. In the 2015–2020 Dietary Guidelines for Americans, the amounts of fruit juice allowed in the USDA Food Patterns for young children are in line with American Academy of Pediatrics guidelines that young children consume no more than 4–6 fluid ounces of 100 percent fruit juice per day. <sup>1</sup>Committee on Nutrition. Use and misuse of fruit juice in Pediatrics. Pediatrics. 2001;107;(5):1210-3. <sup>2</sup>References for development of English and Spanish Food Behavior Checklists – [https://townsendlab.ucdavis.edu/PDF\\_Files/spa/spa\\_fbc\\_ref.pdf](https://townsendlab.ucdavis.edu/PDF_Files/spa/spa_fbc_ref.pdf) <sup>3</sup>BSQ - Neuhouser ML, Lilley S, Lund A, et al. Development and validation of a beverage and snack questionnaire for use in evaluation of school nutrition policies. J Am Diet Assoc 2009;109;(9):1587-1592. <sup>4</sup>SPAN - Thiagarajah K, Fly AD, Hoelscher DM, et al. Validating the food behavior questions from the elementary school SPAN questionnaire. J Nutr Educ Behav. 2008;40;5:305-310.