

**Name:** Adult Binge Drinking

**Short Description:** Percentage of adults reporting binge drinking in the past 30 days (calculated as a crude prevalence).

**Data Source(s):**

- **Name:** The Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), accessed via the PLACES Project Data Portal
- **Link to Source:**  
<https://chronicdata.cdc.gov/browse?category=500+Cities+%26+Places&sortBy=newest&utf8>

**Year(s):** 2018

**Source Geographic Level:** Zip Code Tabulation Area (ZCTA)

**Stratification:** Not available

**Selection Rationale:** A person's risk for developing alcohol use disorder (AUD) depends on how much, how often, and how quickly they consume alcohol. Binge drinking over time increases the risk of AUD.<sup>1</sup> Heavy alcohol use increases the odds of having mental health problems for those over the age of 50,<sup>2</sup> and alcohol dependence has been found to be associated with major depression among adults 18 and over.<sup>3</sup>

**Strengths and Limitations**

- **Strengths:**
  - *[Importance]* Binge drinking has been found to produce depressive symptoms in the general population, and has been found to contribute independently to the occurrence of depressive symptoms.<sup>4</sup>
  - *[Feasibility]* The data are easily downloadable from PLACES and maintained by the CDC Division of Population Health, Epidemiology and Surveillance Branch.
  - *[Scientific Soundness]* The methods used by the CDC to generate these small area estimates account for the associations between individual health outcomes,

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<sup>1</sup> National Institute on Alcohol Abuse and Alcoholism. (2021). *Understanding Alcohol Use Disorder*. [https://www.niaaa.nih.gov/sites/default/files/publications/Alcohol\\_Use\\_Disorder\\_0.pdf](https://www.niaaa.nih.gov/sites/default/files/publications/Alcohol_Use_Disorder_0.pdf)

<sup>2</sup> Choi, N. G., DiNitto, D. M., & Marti, C. N. (2015). Alcohol and other substance use, mental health treatment use, and perceived unmet treatment need: Comparison between baby boomers and older adults. *The American Journal on Addictions*, 24(4), 299–307. <https://doi.org/10.1111/ajad.12225>

<sup>3</sup> Kuria, M. W., Ndeti, D. M., Obot, I. S., Khasakhala, L. I., Bagaka, B. M., Mbugua, M. N., & Kamau, J. (2012). The association between alcohol dependence and depression before and after treatment for alcohol dependence. *ISRN Psychiatry*, 2012, Article 482802. <https://doi.org/10.5402/2012/482802>

<sup>4</sup> Paljärvi, T., Koskenvuo, M., Poikolainen, K., Kauhanen, J., Sillanmäki, L., & Mäkelä, P. (2009). Binge drinking and depressive symptoms: a 5-year population-based cohort study. *Addiction*, 104(7), 1168–1178. <https://doi.org/10.1111/j.1360-0443.2009.02577.x>

individual characteristics, and spatial contexts. CDC's internal and external validation studies confirm strong consistency between small area estimates and direct BRFSS survey estimates at state and county levels.<sup>5</sup>

- **Limitations:**

- [Relevance and Usability] This measure is a model-based estimate,<sup>6</sup> so it may be difficult to interpret on its own. Further, the measure does not convey the frequency of binge drinking or the specific amount of alcohol consumed.<sup>7</sup>
- [Scientific Soundness] This measure is self-reported and depends on the accuracy of the person surveyed.
- [Scientific Soundness] Age adjusted prevalence is not available at the census tract level, so these data are reported as a crude prevalence.

### Calculation:

*Adult binge drinking*

$$= \frac{\text{Respondents aged } \geq 18 \text{ years who report binge drinking in the past 30 days}^*}{\text{Respondents aged } \geq 18 \text{ years who report having a specific \# of drinks on an occasion in the past 30 days}^{**}} \times 100\%$$

\*Where binge drinking is defined as a woman consuming more than four alcoholic drinks during a single occasion or a man consuming more than five alcoholic drinks during a single occasion.

\*\* Denominator excludes those who refused to answer, had a missing answer, or answered "don't know/not sure".<sup>8</sup>

Note - BRFSS estimates the crude prevalence based on self-reports using small area estimation and multilevel regression and poststratification, which links geocoded health surveys and high spatial resolution population demographic and socioeconomic data.<sup>9</sup>

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<sup>5</sup> Centers for Disease Control and Prevention. (2020a, December 8). *PLACES Methodology*.

<https://www.cdc.gov/places/methodology/>

<sup>6</sup> Ibid

<sup>7</sup> Centers for Disease Control and Prevention. (2020b, December 8). *Unhealthy Behaviors Measure Definitions*.

<https://www.cdc.gov/places/measure-definitions/unhealthy-behaviors/index.html#binge-drinking>

<sup>8</sup> Centers for Disease Control and Prevention. (2020c, December 8). *PLACES Measure Definitions*.

<https://www.cdc.gov/places/measure-definitions>

<sup>9</sup> Centers for Disease Control and Prevention. (2020a, December 8). *PLACES Methodology*.

<https://www.cdc.gov/places/methodology/>