

Name: Suicidal Ideation

Short Description: Percentage of the adult population over the age of 18 that experienced serious thoughts of suicide in the past year.

Data Source(s):

- Name: Interactive National Survey on Drug Use and Health (NSDUH) Substate Estimates
- Link to Source: <https://pdas.samhsa.gov/saes/substate>

Year(s): 2016-2018

Source Geographic Level: Substate region

Stratification: Not available

Selection Rationale: The prevalence of suicidal ideation provides information about the percentage of the adult population that is at risk for suicide. A significant amount of people who report suicidal ideation have been found to have a probable psychiatric disorder where an effective treatment exists, but a sizable amount of those people (one study found 50%¹) do not perceive a need for mental health care. Additionally, many of those who exhibit suicidal ideations and a probable disorder do not receive any treatment at all. Of those who do perceive a need for care, many find difficulty in obtaining it.² Suicidal ideation prevalence provides additional depth of information alongside a suicide mortality measure for understanding suicide risk and mental wellness. Although suicidal ideation is a predictor of fatal and non-fatal suicide attempts, both measures have different risk factors. Depression, hopelessness, and a wide array of mental disorders contribute to ideations, but access to lethal means and impulsivity contribute to suicide attempts.³ Therefore, the suicidal ideations measure can provide an idea of where risk for suicidal behavior and attempts is present.

Strengths and Limitations:

- **Strengths:**
 - *[Importance]* The prevalence of suicidal ideation provides information about risk for suicide and potential underlying mental health and substance use disorders. Many people experiencing suicidal ideation do not receive treatment due to not perceiving a need for care or finding difficulty obtaining care.⁴

¹ Brook, R., Klap, R., Liao, D., & Wells, K. B. (2006). Mental health care for adults with suicide ideation. *General Hospital Psychiatry*, 28(4), 271–277. <https://doi.org/10.1016/j.genhosppsy.2006.01.001>

² Ibid

³ Klonsky, E. D., May, A. M., & Saffer, B. Y. (2016). Suicide, Suicide Attempts, and Suicidal Ideation. *Annual Review of Clinical Psychology*, 12, 307-330. <https://doi.org/10.1146/annurev-clinpsy-021815-093204>

⁴ Brook, R., Klap, R., Liao, D., & Wells, K. B. (2006). Mental health care for adults with suicide ideation. *General Hospital Psychiatry*, 28(4), 271–277. <https://doi.org/10.1016/j.genhosppsy.2006.01.001>

- [*Relevance and Usability*] This measure is easy to understand and can provide information about where suicide risk factors are present.
- [*Feasibility*] NSDUH collects these data yearly and the samples are nationally representative.⁵
- [*Scientific Soundness*] NSDUH questions were designed to provide the respondent with a highly private and confidential mode for responding to questions to increase the level of honest reporting of illicit drug behavior and other sensitive behaviors.⁶
- [*Equity*] This measure captures disparities experienced between population groups. Suicidal ideations for those who exhibit two or more races, American Indians and Alaska Natives, and Hispanics are higher than the total average national suicide rate.⁷
- **Limitations:**
 - [*Relevance and Usability*] The NSDUH target population is the civilian, noninstitutionalized population, so about 3% of the population is not included because active-duty military members and people in institutionalized settings (hospitals, prisons, nursing homes, treatment centers) are not sampled.⁸ This may portray an inaccurate picture of national-level suicidal ideation because people who experience suicidal ideations in treatment centers, prisons, and nursing homes are not captured.
 - [*Scientific Soundness*] The smallest geographic level at which these data are available is the substate level, so each Zip Code Tabulation Area (ZCTA) in a given substate region will have the same value. As a result, ZCTA-level values may be less accurate because it is not possible to differentiate which ZCTAs have higher or lower rates within a substate region.
 - [*Scientific Soundness*] This measure is self-reported and depends on the accuracy of the person surveyed.
 - [*Scientific Soundness*] & [*Equity*] When using surveys, suicidal ideations are vastly under-reported due to cultural and religious stigmas.² When dealing with any type of suicide-related measure, it's best to assume underreporting.

⁵ Center for Behavioral Health Statistics and Quality. (2020). *2019 National Survey on Drug Use and Health Public Use File Codebook*. Substance Abuse and Mental Health Services Administration.
<https://www.datafiles.samhsa.gov/sites/default/files/field-uploads-protected/studies/NSDUH-2019/NSDUH-2019-datasets/NSDUH-2019-DS0001/NSDUH-2019-DS0001-info/NSDUH-2019-DS0001-info-codebook.pdf>

⁶ Ibid

⁷ National Institute of Mental Health. (n.d.). *NIMH Suicide Statistics*.
<https://www.nimh.nih.gov/health/statistics/suicide>

⁸ Center for Behavioral Health Statistics and Quality. (2020). *2019 National Survey on Drug Use and Health Public Use File Codebook*. Substance Abuse and Mental Health Services Administration.
<https://www.datafiles.samhsa.gov/sites/default/files/field-uploads-protected/studies/NSDUH-2019/NSDUH-2019-datasets/NSDUH-2019-DS0001/NSDUH-2019-DS0001-info/NSDUH-2019-DS0001-info-codebook.pdf>

Calculation:

$$\text{Suicidal Ideation} = \frac{\text{number of adults who experienced serious thoughts of suicide in the past year}}{\text{total adult population}} \times 100\%$$

Data from the Substance Abuse and Mental Health Services Administration (SAMHSA) NSDUH Dataset were aligned to ZCTAs using the Substate Region to ZCTA transformation. The substate regions between 2016 to 2018 were defined in partnership with regional health departments as “counties, groups of counties, or aggregations of census tracts.” The file with substate definitions can be downloaded from the SAMHSA website.⁹

As census tracts are the building blocks for all substate regions, the data value for each census tract is assigned the value of the substate region estimate it belongs within.

Once all the values have been aligned to each census tract, the measure is processed using the Census Tract to ZCTA crosswalk to align the measure back to the ZCTA level.

⁹ Download available: https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHsubstateRegionDefs2016B/substate_definitions_SAS.zip