

Social Determinants of Depression Among Adults in the United States

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Background

- Major depression is one of the most diagnosed mental illnesses⁴
- Prevalence is estimated to be 8% in the US in 2021⁴
- Depression is associated with a lower life expectancy,¹ and those diagnosed with depression are twice as likely to die as those without depression⁵
- Depression can contribute to a decline in physical well-being, poor mental health, and a more difficult recovery process in the wake of a health event, such as stroke²
- Social Determinants of Health (SDOH) are nonmedical factors that contributes to one's health, risks, and outcomes³
 - Five domains: economic stability, health care access and quality, education access and quality, neighborhood and built environment, and social and community context
- SDOH are a key upstream target for primary prevention of poor health outcomes within populations



Results

Table 1: Selected Questions from BRFSS

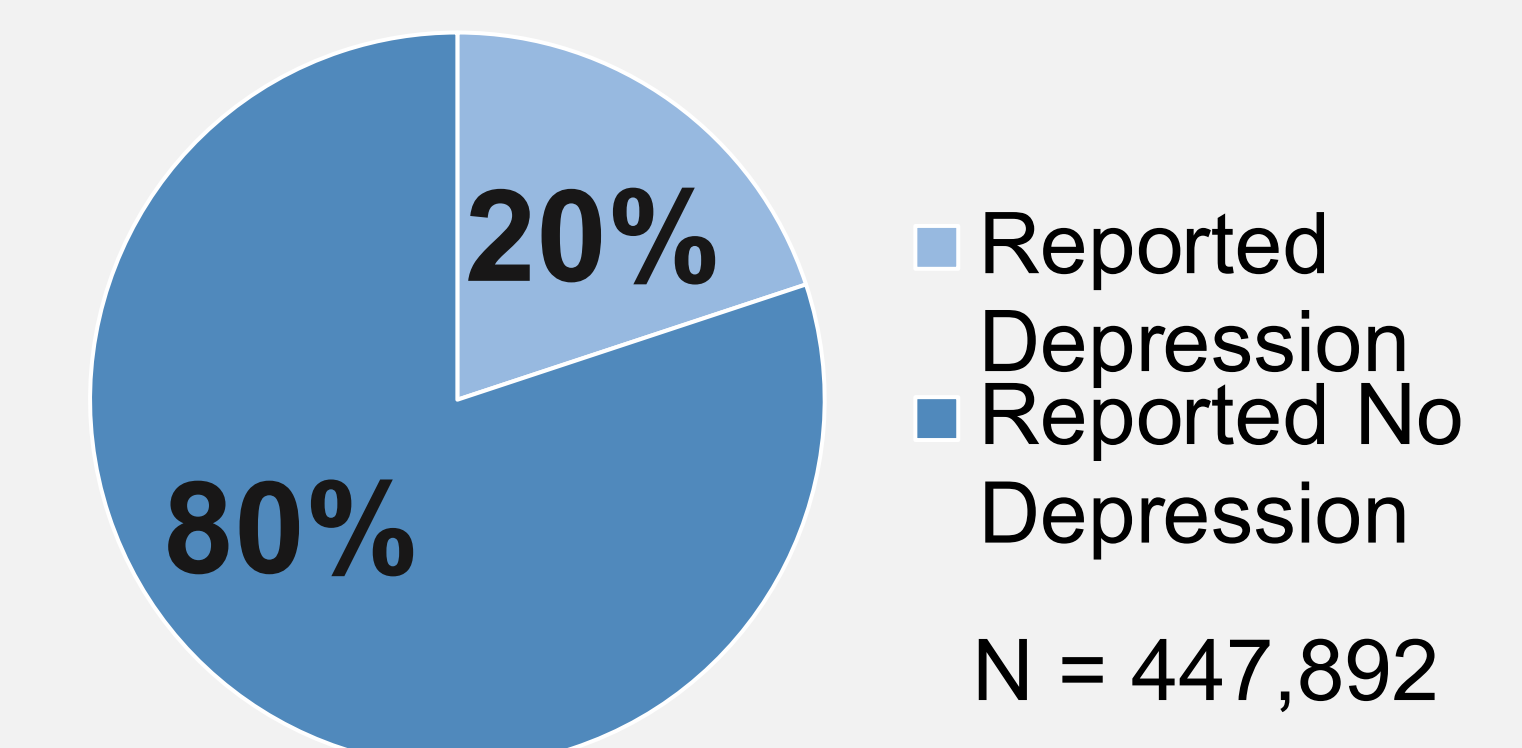
Module 6: Chronic Disease Conditions	
Has a doctor, nurse, or other health professional ever told you that have a depressive disorder, including depression, major depression, dysthymia, or minor depression?	Yes No
Module 25: Social Determinants of Health	
How safe from crime do you consider your neighborhood to be? Would you say...	Extremely safe Safe Unsafe Extremely unsafe
During the last 12 months, was there a time when you were not able to pay your mortgage, rent or utility bills?	Yes No
Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress?	None of the time A little of the time Some of the time Most of the time All of the time

Note: Each question allowed for an answer of "don't know/not sure" or "refused". These responses, and those with any missing values, were excluded from our analysis.

Table 2: Factors Associated with Depression

Social Determinant of Health	AOR	95% CIs	N
Feeling Unsafe in One's Neighborhood	1.43	1.28, 1.59	87,050
Not Being Able to Pay Bills	1.46	1.36, 1.56	87,504
Having Higher Levels of Stress	11.71	10.65, 12.90	86,802

Figure 2: Self-Reported Depression in National BRFSS Cohort, 2017



Objective

This study aims to assess the social determinants of depression among adults aged ≥18 years in the US and to provide evidence and indications for depression control and prevention.

Methods

Data

- 2017 Behavioral Risk Factor Surveillance System (BRFSS)
- Cross-sectional telephone interview of adults aged ≥ 18 years living in 50 states, including the District of Columbia, Puerto Rico, Guam, and the Virgin Islands

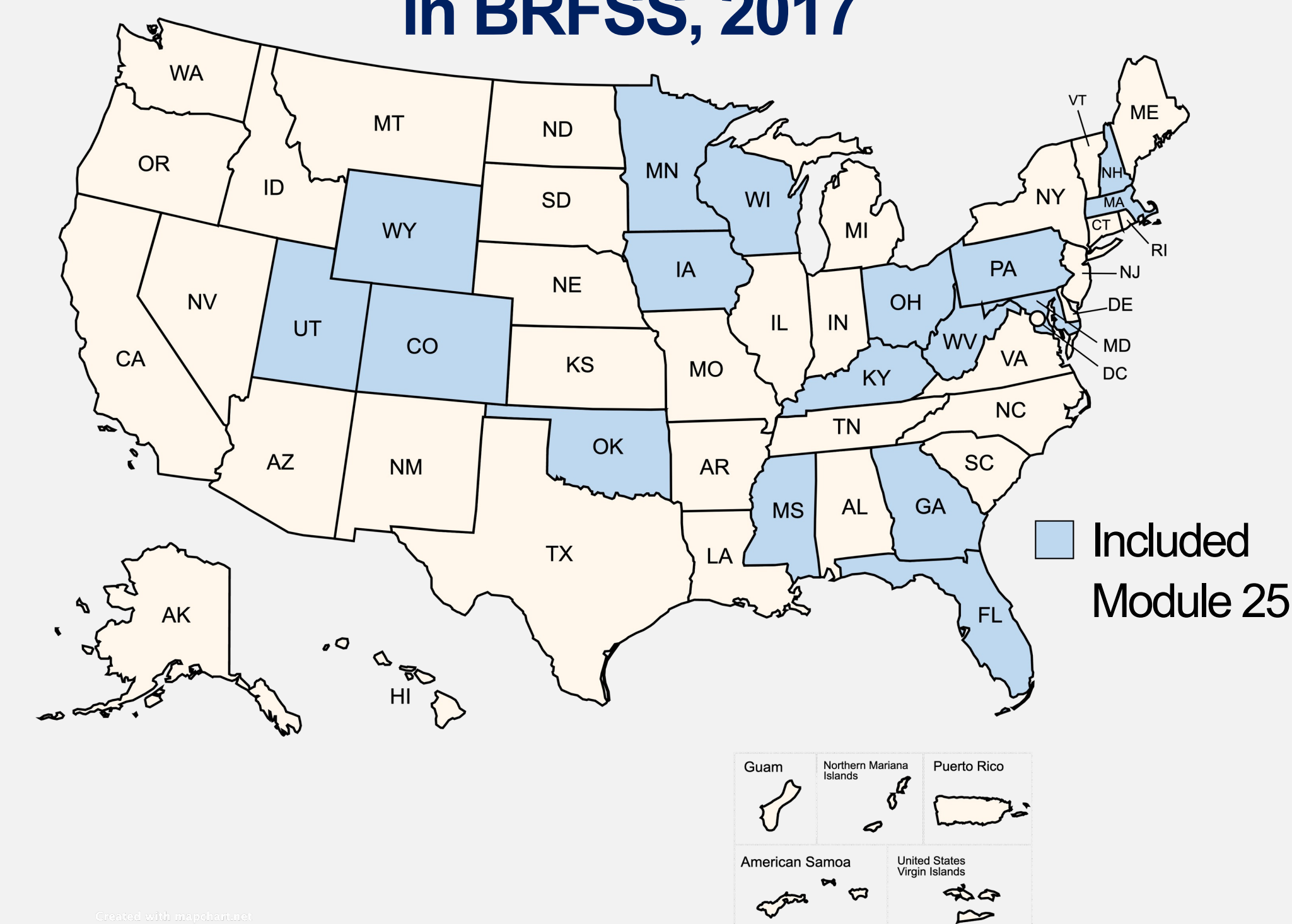
Measures

- BRFSS includes 16 core modules and 30 optional modules
 - Module 6: Chronic Disease Conditions (core)
 - Module 25: Social Determinants of Health (optional)

Analysis

- Data restricted to the 17 states, N < 87,000
- A bivariate analysis was performed to assess factors independently associated with a self-reported history of depression diagnosis among adults aged ≥18 years
- Statistically significant variables (p≤0.05) in the bivariate analysis were entered in the final multivariable logistic regression model
- Adjusted Odds Ratios (AORs) and 95% Confidence Intervals (95% CIs), obtained from the multivariable logistic regression analysis were reported (Table 2)
 - Adjusted for gender, race/ethnicity, age, level of education, level of income, marital status, and health status
- All statistical analyses were conducted using SAS version 9.4.

Figure 1: States that included Module 25 in BRFSS, 2017



Highlights

- 17 states elected to include module 25 in the 2017 BRFSS, N < 87,000
- Three social determinant variables were associated with higher odds of self-reporting depression diagnosis after adjustment:
 - feeling unsafe in one's neighborhood
 - not being able to pay bills, and
 - having higher levels of stress

Discussion

- Our findings show that 3 key factors are important to explain the variability in the prevalence of self-reported depression in the sample population
- Social determinants should be considered a high priority for depression control and prevention
- The COVID-19 pandemic and current rising inflation have the potential to exacerbate these relationships with depression
- The SDOH question module was not included in the BRFSS questionnaire 2018-2021, so data on shifts in these variables associated with depression during COVID are not available
 - Future BRFSS should include the SDOH module, so SDOH associated with depression can be further studied
- Reported variability in the prevalence of depression suggests that longitudinal data are required to provide more accurate estimates of the prevalence of depressive disorders among adults in the US

References

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