www.covidstates.org

THE COVID STATES PROJECT:
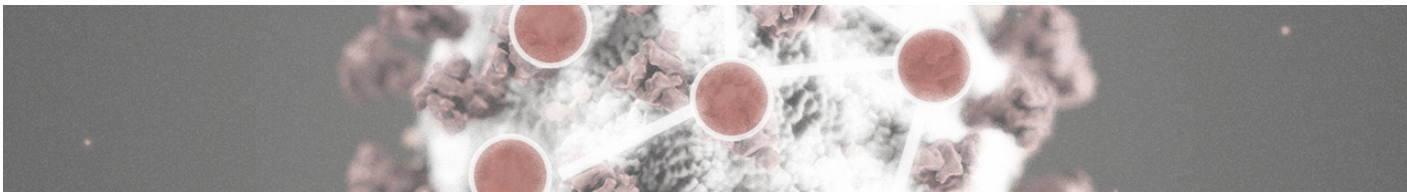# A 50-STATE COVID-19 SURVEY
REPORT #54: MENTAL HEALTH IN THE US

USA, May 2021

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Report of May 21, 2021, v.1

The COVID States Project

From: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:
Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: Roy H. Perlis (Harvard Medical School); Jon Green (Northeastern University); Matthew Simonson (Northeastern University); David Lazer (Northeastern University); Matthew A. Baum (Harvard University); Katherine Ognyanova (Rutgers University); Hanyu Chwe, (Northeastern University); James Druckman (Northwestern University); Mauricio Santillana (Harvard Medical School); Jennifer Lin (Northwestern University); Ata Uslu (Northeastern University), and Alexi Quintana (Northeastern University)

COVER MEMO

Summary Memo — May 21, 2020

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From April 2020 through May 2021, we conducted multiple waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at covidstates.org.

Note on methods:

Between April 1 and May 3, 2021, we surveyed 21,733 individuals across all 50 states plus the District of Columbia. The survey was conducted by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on the other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This was the latest in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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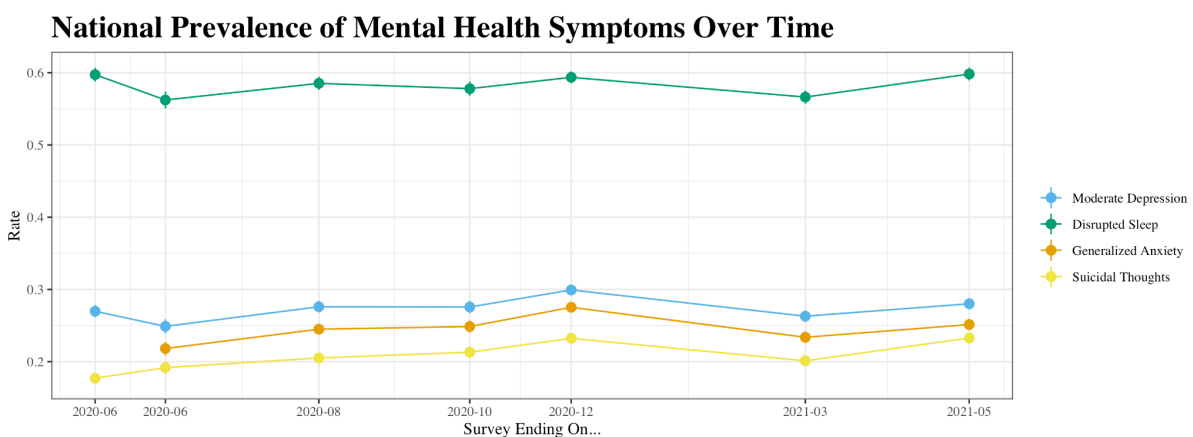
Or visit us at www.covidstates.org.

Mental health in the United States

With rapid progress toward vaccination in the United States along with falling COVID-19 case rates and a reopening economy, federal and state leaders speak optimistically about a return to normalcy this summer. But as cases diminish, have the unprecedented rates of depression and anxiety documented in our reports, and in other US surveys, also begun to normalize? On the one hand, as a recent *New York Times* op-ed notes, people in general are remarkably resilient. And in our prior work we showed that depression and anxiety were tied closely to economic stress; as the economy improves, we might expect mental health to improve as well. On the other hand, the impact of a year of COVID-19 quarantine and fear of illness – perhaps compounded by political and societal turmoil – might not resolve so readily.

In this report, we characterize rates of depression, anxiety, and sleep disturbance, as we have done on a regular basis since May 2020. We used a standard screening measure drawn from primary care, the Patient Health Questionnaire-9 (PHQ-9), which asks about the symptoms of major depression, as well as 2 items that ask about anxiety (the Generalized Anxiety Disorder-2, or GAD-2). We define major depression as a score on the PHQ-9 of 10 or greater, or moderate depression, often the point at which an individual would be referred for treatment. Sleep disruption and thoughts of suicide are defined based on items on the PHQ-9. We examine whether depression and anxiety symptoms are becoming less prevalent overall, and then focus on whether rates of depression among particular groups of people have changed. We also consider the relationship between depression and vaccination status.
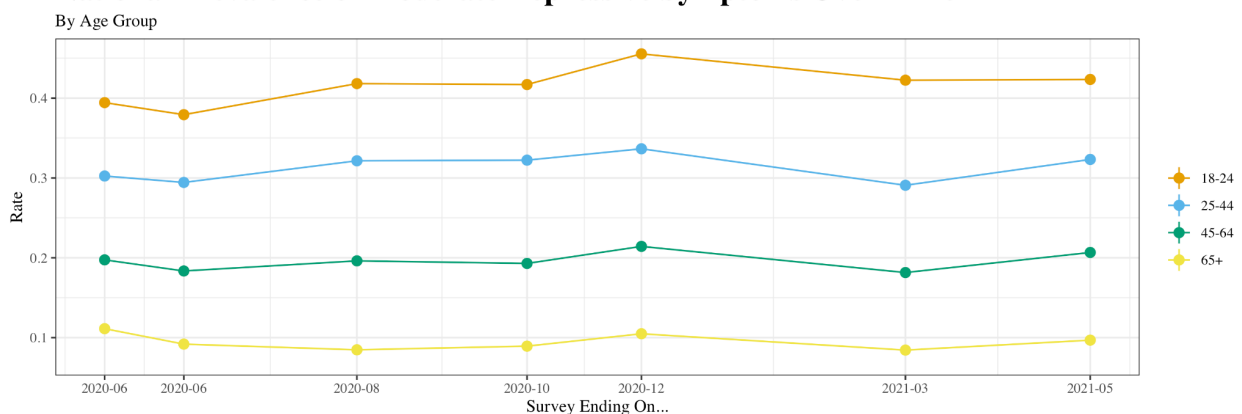
 Among the key findings are the following:

- **We do not see evidence of an improvement in the prevalence of depression and other measures of mental health, despite marked improvement in the pandemic in the United States since the winter.**

National Prevalence of Mental Health Symptoms Over Time

Overall, 28% of those surveyed report levels of depression that would typically trigger a referral for evaluation and treatment; these numbers have diminished slightly compared to their peak of 30% in December 2020 but remain about three times those observed in the pre-COVID era, and elevated compared to the low of 25% in late June 2020. Rates of anxiety also remain elevated at 25%, but down from 28% in December 2020. Notably, 23% of respondents still endorse thoughts of suicide at least occasionally, similar to the rates observed in December.
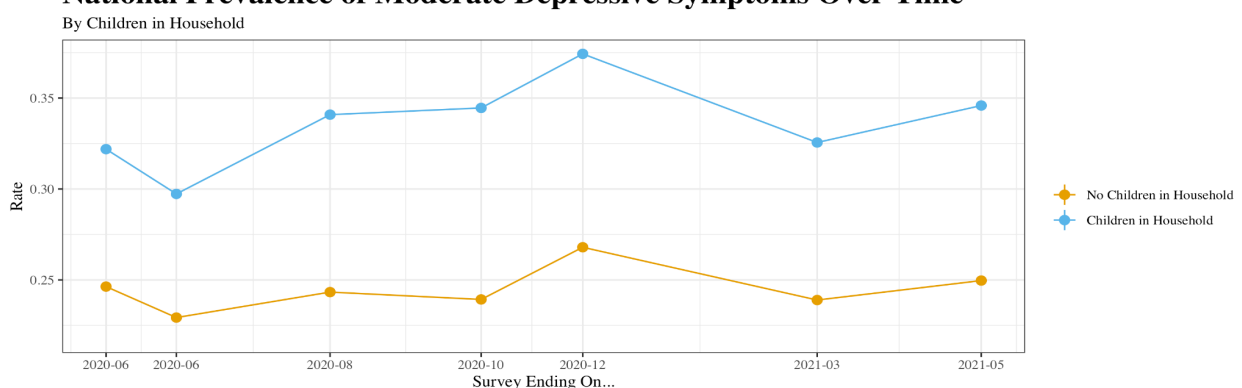
- **Young adults continue to be the hardest hit, with 42% meeting at least moderate depression severity criteria**, followed by 25-44 year olds at 32% and 45-64 year olds at 20%. Respondents age 65 and older are the least impacted, on average, with 10% meeting criteria for moderate or greater depression.

National Prevalence of Moderate Depressive Symptoms Over Time
By Age Group

- **Parents with children at home have consistently experienced elevated rates of depression, with a gap of about 10% between parents and nonparents - currently 35% versus 25%**. Some of this difference likely reflects age - that is, parents are generally younger than nonparents. The remainder may reflect such additional stresses as remote education.
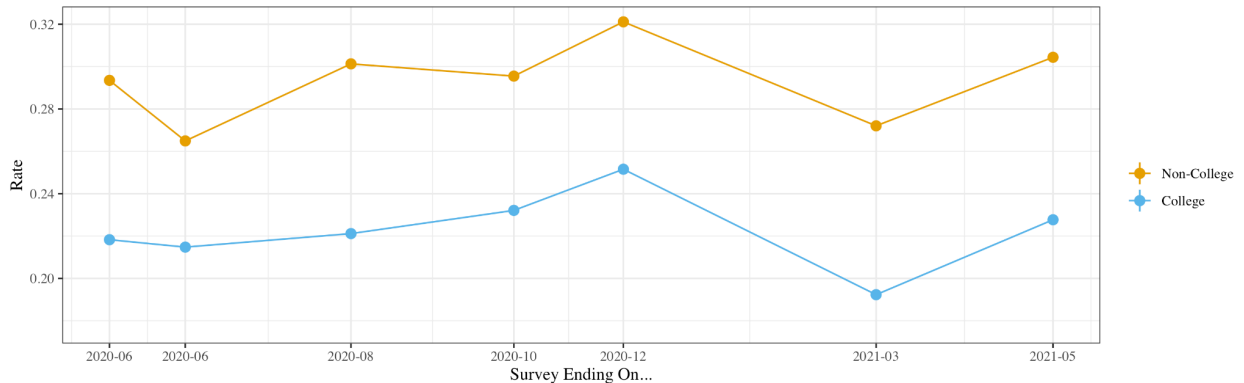
National Prevalence of Moderate Depressive Symptoms Over Time
By Children in Household

- Respondents without college education continue to report higher levels of depression (30%) than their college educated counterparts (23%).

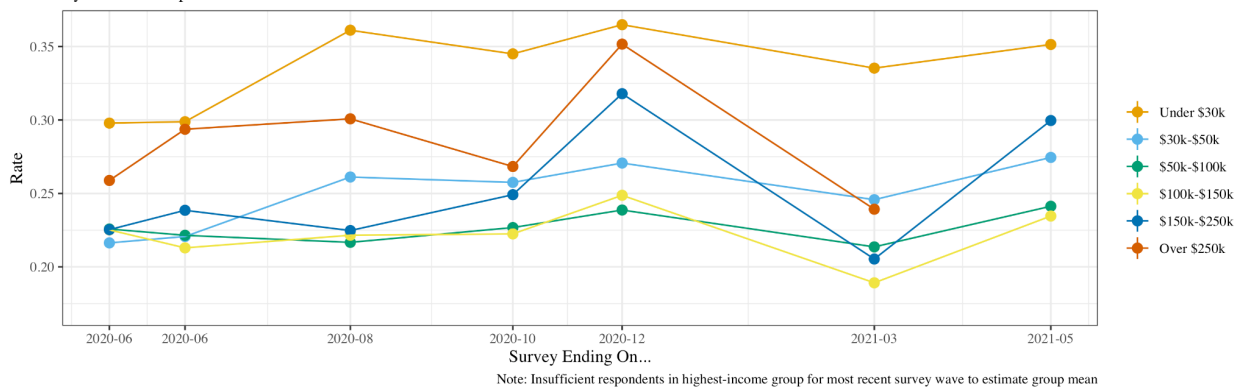**National Prevalence of Moderate Depressive Symptoms Over Time**
By College Education

- **Similarly, those earning less than $30,000 per year continue to demonstrate the highest rate of depression (35%)** - but the pattern among those earning more is less clear, with lowest levels of depression reported among those earning $50-150,000 per year (23-24%).

National Prevalence of Moderate Depressive Symptoms Over Time
By Income Group

Note: Insufficient respondents in highest-income group for most recent survey wave to estimate group mean

- The rate of depression among Asian American respondents has increased since March 2021 from 22% to 27%; while these numbers have generally been lower than any other racial/ethnic group, they are now similar to all except Latino respondents.

Among both White and Black respondents, 27% report depression. **Latino respondents consistently report the highest rates of depression at 33%**, although they have diminished since December when they peaked at 36%.

National Prevalence of Moderate Depressive Symptoms Over Time
By Race

- Political party affiliation remains strongly associated with depression prevalence, with **Democrats (30%) and independents (33%) about a third more likely to meet the criteria for depression than Republicans (21%).**
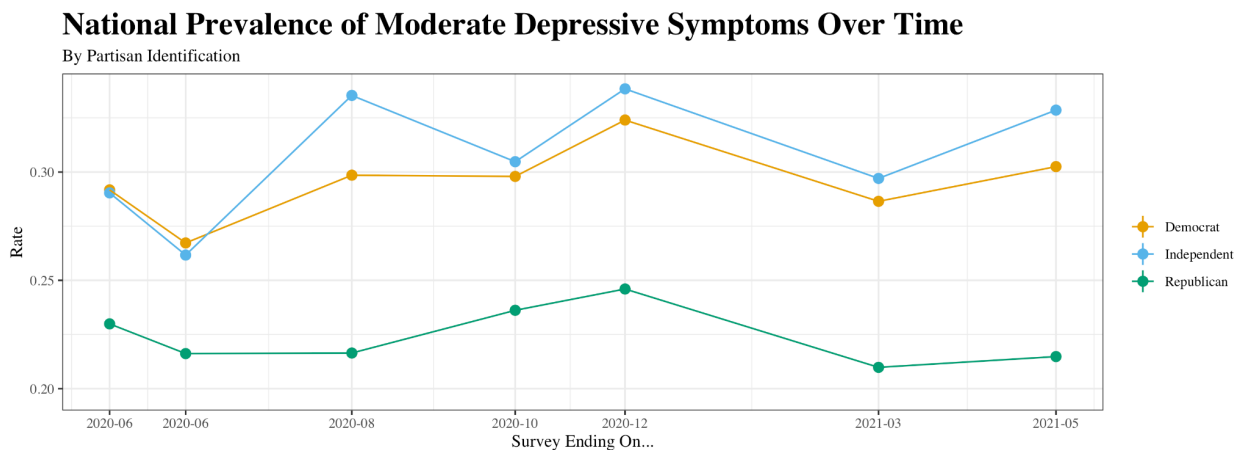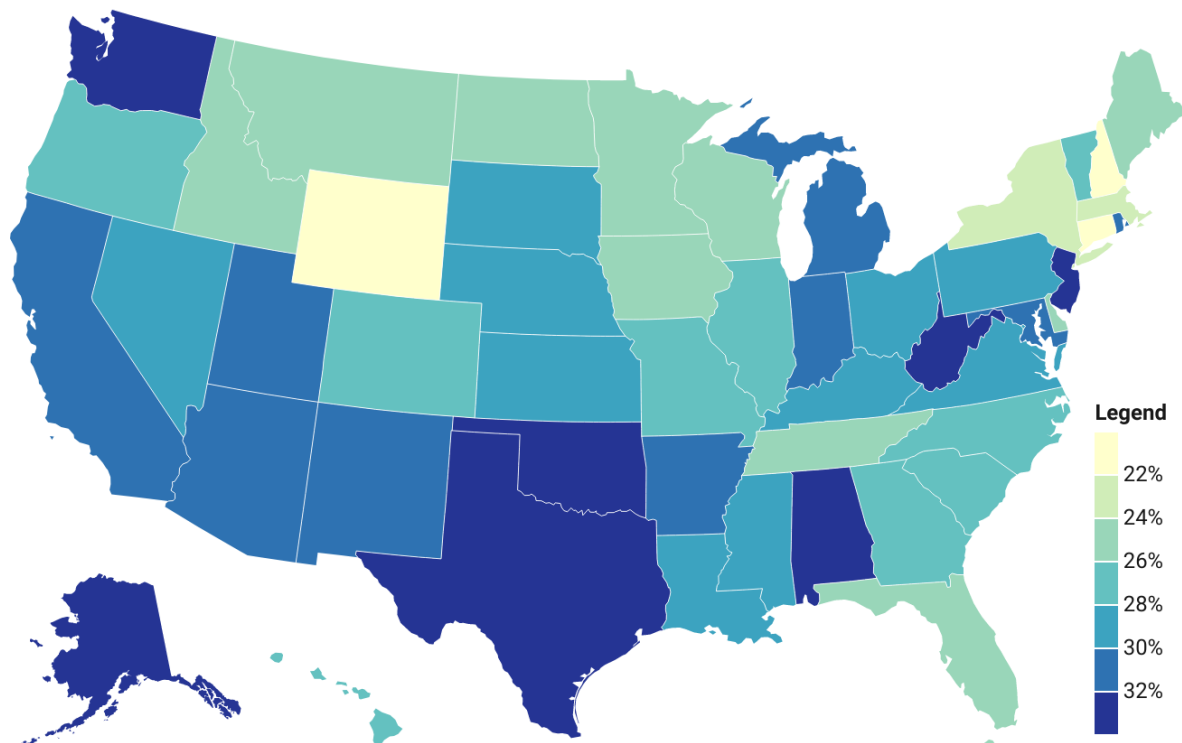
National Prevalence of Moderate Depressive Symptoms Over Time
By Partisan Identification

- Rates of depression remain quite variable between states, but some patterns have emerged. Four of the five states with lowest rates are in the Northeast (Connecticut, New Hampshire, Massachusetts, and New York), ranging from 20% to 22%. The states with the greatest rates are Texas, West Virginia, Alabama, Oklahoma, and Alaska, at 33% to 34%; 11 states have rates of moderate depression of 30% or greater.

Americans with moderate to severe depression symptoms

Percent respondents in each state who described symptoms in a range that would be consistent with moderate or severe depression using the PHQ-9 depression questionnaire.

Legend
- 22%
- 24%
- 26%
- 28%
- 30%
- 32%

National sample, N = 21,733, Time period: 04/01/2021-05/03/2021

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org
• Created with Datawrapper

- **Respondents who are at least moderately depressed are less likely to have been vaccinated.** In all, 32% of those with depression have been vaccinated, versus 51% of those without. However, these differences do not appear to be attributable to rates of vaccine resistance, which are 20% among those who are depressed, compared to 18% among those who are not.

In fact, in regression models adjusting for age, gender, political affiliation, income, and education, people with depression are significantly less likely to be vaccinated, and *less* likely to be resistant. If depressive or anxious symptoms are preventing some individuals willing to be vaccinated from pursuing vaccination, strategies that improve accessibility may be particularly important.

Vaccine Intention Among Those With or Without Moderate or Greater Depression

"If you were able to choose when to get a COVID-19 vaccine, would you get it…"

Already vaccinated

Not depressed	51
Depressed	38

As soon as possible

Not depressed	12
Depressed	18

After some people

Not depressed	11
Depressed	12

After most people

Not depressed	8
Depressed	12

Would not get vaccine

Not depressed	18
Depressed	20

National sample, N=21,733, Time period: 04/01/2021-05/03/2021

Chart: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org • Created with Datawrapper

Methods and measures

The PHQ-9 asks, "Over the last 2 weeks, how often have you been bothered by any of the following problems?"

- For suicide and thoughts of death, it asks, "Thoughts that you would be better off dead, or of hurting yourself?"

- For sleep disturbance, "Trouble falling or staying asleep, or sleeping too much?"

For the analysis presented in Figure 1, we consider any answer other than 'Not at all' as 'present'.

For vaccination status, we ask, "Have you or anyone you know received a COVID-19 vaccine? (Please select all that apply)"

To determine vaccine hesitancy or resistance, we ask, "If you were able to choose when to get a COVID-19 vaccine, would you get it…"

- As soon as possible
- After at least some people I know have already received it
- After most people I know have already received it
- I would not get the COVID-19 vaccine