THE STATE OF THE NATION:
A 50-STATE COVID-19 SURVEY
REPORT #23: DEPRESSION AMONG YOUNG ADULTS

USA, November 2020

Roy H. Perlis, Harvard Medical School
Jon Green, Northeastern University
Alexi Quintana, Northeastern University
Adina Gitomer, Northeastern University
Hanyu Chwe, Northeastern University
Matthew Simonson, Northeastern University
David Lazer, Northeastern University
Matthew A. Baum, Harvard University
Jennifer Lin, Northwestern University
Katherine Ognyanova, Rutgers University
James Druckman, Northwestern University
Mauricio Santillana, Harvard Medical School
Report of November 9, 2020, v.1

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); Alexi Quintana (Northeastern University); Adina Gitomer (Northeastern University); Hanyu Chwe (Northeastern University); Matthew Simonson (Northeastern University); David Lazer (Northeastern University); Matthew A. Baum (Harvard University); Jennifer Lin (Northwestern University); Katherine Ognyanova (Rutgers University); James Druckman (Northwestern University); Mauricio Santillana (Harvard Medical School)

This report is based on work supported by the National Science Foundation under grants SES-2029292 and SES-2029297. Any opinions, findings, and conclusions or recommendations expressed here are those of the authors and do not necessarily reflect the views of the National Science Foundation.

This research will also be supported in part by a generous grant from the Knight Foundation.
From April through October, we conducted eight 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:**
Over four survey waves, we polled young Americans, age 18 to 24. The data was collected in May (N=2,387), June (N=1,600), August (N=2,903), and October (N=2,053) of 2020 by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity and gender (for methodological details on 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 of that age with respect to race/ethnicity, gender, education, and living in urban, suburban, or rural areas.

**Contact information:**
For additional information and press requests contact:
- Roy H. Perlis at rperlis@mgh.harvard.edu
- David Lazer at d.lazer@neu.edu
- Matthew A. Baum at matthew.baum@hks.harvard.edu
- Katherine Ognyanova at katya.ognyanova@rutgers.edu
- James Druckman at druckman@northwestern.edu
- Mauricio Santillana at msantill@fas.harvard.edu

Or visit us at www.covidstates.org.
Depression among young adults in the United States, May to October 2020

Alongside the direct health impact of COVID-19 itself, there has been increasing recognition of the consequences of the pandemic for mental health. Initial attention focused on the front line health workers impacted by the first surge, but Americans have felt the impact of the pandemic and the strategies required to contain it far more broadly.

Prior to COVID-19, the mental health of young adults in the United States had already been recognized as a major concern, with suicide representing the 2nd-leading cause of death among individuals age 10-34 (unintentional injury is the leading cause of death in this age group). With the advent of the pandemic, many in this group have experienced disruption in college or graduate school plans, family life, or employment -- particularly as they tend to have jobs with less flexibility or capacity for remote work.

In our earlier 50-state survey wave in May, we noted substantial elevation in rates of depression (up to 27% across age groups), compared to historical norms using the same screening measure - in those aged 20-39, rates of moderate depression between 2013 and 2016 averaged to 7.7%. In this report, we examine whether rates of depression among people aged 18-24 changed during the summer and early fall, as the pandemic expanded and shifted to new regions of the US. We characterize mental health in more detail, looking at individual symptoms, including thoughts of suicide, generalized anxiety, and disruption in sleep. We also consider whether particular demographic subgroups are differentially impacted in terms of mental health.

Major depressive symptoms remain extremely high among young adults compared to historical norms

Overall, across 4 national waves (late May, late June, late August, and mid-October), we find that the prevalence of major depressive symptoms among young adults remains high (Figure 1), with 47.3% of this population showing at least moderate depressive symptoms in October -- the highest level since June. While the Northeast US might have fared slightly better in early summer, no region of the country has been spared (Figure 2). Rates of anxiety have also increased in parallel. Conversely, while sleep disruption is the most common symptom, it has modestly decreased, from 75.4% in May to 72.2% in October (Figure 1).

---

1 We utilized the PHQ-9 and the GAD-2; moderate depression is a PHQ-9 score of 10 or greater, mild or greater depression is a PHQ-9 score of 5 or greater; thoughts of suicide or death uses any score on item 9 of the PHQ-9 greater than 0, while sleep disruption includes any score on item 3 of the PHQ-9 greater than 0.
We also examined the proportion of respondents who described at least occasional thoughts of being better off dead, or of harming themselves, during the 2 weeks prior to taking the survey. Public health experts have expressed concern that the pandemic could lead to an increase in suicides, and while this survey question does not explicitly ask about suicide, positive responses have been shown to be associated with increased risk. In late May, as with depression, we found rates of thoughts of death and suicide much greater than those observed before the pandemic, with no variation in the way the question was asked. For example, an analysis of an epidemiologic study from 2013 and 2014 found 3.4% of adults reported these thoughts. The rates seen in May were especially high among young adults, at 32.2% - that is, nearly 10-fold greater than estimates from the older study. (Results from a smaller survey in June of 18-24-year-olds were similar, reporting a rate of roughly 26%.) In subsequent study waves, this prevalence has increased modestly, reaching 36.9% in October (Figure 1).
Elevation in symptoms are observed across gender, racial and ethnic groups, and levels of education

Focusing on our October results, we also examined whether the prevalence of depression, generalized anxiety, suicidal thoughts, and sleep disruption varied by particular subgroups of young respondents. Outside of the pandemic, depressive episodes are found to be nearly twice as common among women in large epidemiologic studies; in our survey, mild or greater depression, generalized anxiety, and disrupted sleep are also somewhat higher among women. Our results are shown in Figure 3. The greatest gender differences are observed for sleep, with greater prevalence among women, while the least difference is observed for suicidality.

**Figure 3. Prevalence of mental health symptoms among young adults by gender**

We additionally examined rates of symptoms by race and ethnicity (Figure 4), and by level of education (no college versus at least some college; Figure 5). The results show markedly elevated rates, but generally consistently so across groups. In aggregate, our results indicate that all of these subgroups of young adults have and continue to experience substantial impact of the pandemic on their mental health.

**Figure 4. Prevalence of mental health symptoms among young adults by race**
Adverse consequences of the pandemic are common among young adults, and associated with poorer mental health

As part of the October survey, we asked respondents to identify particular consequences of the COVID-19 pandemic that might have impacted them or their households (Table 1). The most commonly-reported consequence was closure of school or university (reported by 51% of 18-24 year old respondents), followed by working from home (41%), absorbing a pay cut (27%), or losing employment (26%). Only 1 in 5 reported none of the consequences listed in the table.

Table 1. Prevalence of COVID-19-related challenges

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Rate among 18- to-24-year-olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started Working from Home</td>
<td>41.0%</td>
</tr>
<tr>
<td>School or University Closed</td>
<td>50.7%</td>
</tr>
<tr>
<td>Stop/reduce work to take care of children</td>
<td>15.0%</td>
</tr>
<tr>
<td>Stop/reduce work to take care of someone with COVID-19</td>
<td>6.0%</td>
</tr>
<tr>
<td>Pay cut due to reduced hours/demand for work</td>
<td>27.4%</td>
</tr>
<tr>
<td>Unable to make rent/mortgage payment</td>
<td>16.0%</td>
</tr>
<tr>
<td>Evicted from home</td>
<td>3.1%</td>
</tr>
<tr>
<td>Laid off or lost a job</td>
<td>26.0%</td>
</tr>
<tr>
<td>None of the above</td>
<td>19.6%</td>
</tr>
</tbody>
</table>
We next compared rates of depressive symptoms among those who did or did not report one of these adverse outcomes (Figure 6). The largest increase in symptoms was observed among those whose homes were impacted or potentially impacted (i.e., eviction, unable to pay rent or mortgage), followed by those whose income was impacted (in terms of loss of employment or pay cut). In fact, rates of moderate depression exceeded 60% among those whose homes were impacted, and 50% among those with income impacted. Conversely, we saw more modest differences in most symptoms among those for whom COVID-19 had required working from home or school closure.

Figure 6. Mental health and COVID-19-related challenges
Conclusion

The next US President will confront impacts far broader than COVID-19 infection alone in trying to deal with the pandemic. Neither candidate provided much detail about their response to the mental health consequences of the disease and efforts to contain it. In line with our May results, our survey indicates that the next administration will lead a country where unprecedented numbers of younger individuals are experiencing depression, anxiety, and, for some, thoughts of suicide. These symptoms are not concentrated among any particular subgroup or region in our survey; they are elevated in every group we examined. Our survey results also strongly suggest that those with direct economic and property losses resulting from COVID-19 appear to be at particular risk, so strategies focusing on these individuals may be critical.

Help for Depression

Help is available for depression, anxiety, and thoughts of suicide. To speak to a counselor today, you can call:

- SAMHSA Disaster Distress Hotline: 1-800-985-5990
- National Suicide Prevention Lifeline: 1-800-273-8255
  (En Español:1-888-628-9454; Deaf and Hard of Hearing: 1-800-799-4889)

Or go online at suicidepreventionlifeline.org/talk-to-someone-now
For help in finding mental health treatment, you can also call the SAMHSA Helpline at 1-800-662-HELP (4357) or online at findtreatment.samhsa.gov.