Mental Health in the United States: New Estimates from the National Center for Health Statistics

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Maria A. Villarroel, PhD
Benjamin Zablotsky, PhD
Stephen J. Blumberg, PhD

NCHS Webinar
September 23, 2020
An Overview of the National Health Interview Survey

Anjel Vahraitian, PhD, MPH
NCHS Data Systems

National Vital Statistics System
National Survey of Family Growth
National Health Interview Survey
National Health and Nutrition Examination Survey
National Health Care Surveys
What is the National Health Interview Survey?

- The National Health Interview Survey (NHIS) is the principal source of information on the health of the civilian noninstitutionalized population of the United States.

- It is the nation’s oldest household health survey.
NHIS – A Gold Standard

Health Insurance
Health Care Access
Functioning and Disability

in-person interviewing | validated questions | robust sample sizes
good response rates | well-documented data files
2019 NHIS

Roster
- Completed by any adult household member

Sample Adult Interview
- Self-response (unless unable)

Sample Child Interview
- Knowledgeable adult responds for child

Basic demographics
- Family identification

Detailed demographics
- Family-level information
- Health status
- Health conditions
- Functioning and disability
- Health insurance
- Health care access and use
- Health-related behaviors
- Mental health
2019 NHIS – At a Glance

Sample size:
- 31,997 sample adults and 9,193 sample children from 33,138 households

Response rates:
- Sample adult: 59.1%
- Sample child: 59.1%

https://www.cdc.gov/nchs/nhis/2019nhis.htm
NHIS SAMPLE ADULT QUESTIONNAIRE

<table>
<thead>
<tr>
<th>ANNUAL CORE</th>
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<tbody>
<tr>
<td><strong>Chronic Conditions</strong>: Hypertension, High cholesterol, Cardiovascular conditions, Asthma, Cancer, Diabetes, Other chronic conditions, Height and weight</td>
</tr>
<tr>
<td><strong>Functioning and Disability</strong>: Vision, Hearing, Mobility, Communication, Cognition, Self-care and upper-body limitations, Anxiety, Depression, Social functioning</td>
</tr>
<tr>
<td><strong>Health Insurance</strong>: Coverage status, Sources of coverage, Characteristics of coverage, Continuity of coverage, Reasons for no health insurance</td>
</tr>
<tr>
<td><strong>Health Care Access and Use</strong>: Primary and urgent care, Financial barriers to care, Prescription medication, Flu and pneumonia immunization</td>
</tr>
<tr>
<td><strong>Health-related Behaviors</strong>: Cigarettes and E-cigarettes</td>
</tr>
<tr>
<td><strong>Demographics</strong>: Marital status, Sexual orientation, Veteran status, Nativity, Schooling, Employment, Family income, Food-related program participation, Housing, Telephone use</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>ROTATING CORE</th>
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<tbody>
<tr>
<td><strong>Mental Health Assessment</strong></td>
</tr>
<tr>
<td><strong>Health-related Behaviors</strong>: Physical activity, Walking, Sleep, Fatigue, Smoking history and cessation, Alcohol use</td>
</tr>
<tr>
<td><strong>Preventive Services</strong>: Screening tests, Aspirin use</td>
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</tbody>
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<thead>
<tr>
<th>SPONSORED CONTENT</th>
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<tbody>
<tr>
<td><strong>Sustaining sponsors</strong>: add content every year. Annual sponsored content will include cancer control and prevention (NCI), NCCDPHP, immunizations (NCIRD), noncigarette tobacco product use (FDA), food security (USDA), and insulin use (NIDDK and NCCDPHP).</td>
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<thead>
<tr>
<th>EMERGING TOPICS</th>
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<tr>
<td>New topics of growing interest may be added by the National Center for Health Statistics, generally for 1 year.</td>
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</table>

NHIS Expanded Mental Health Content
Rotating Core

- **Assessment**
  - Generalized Anxiety Disorder (GAD-7)
  - Patient Health Questionnaire (PHQ-8)

- **Service Utilization**
  - Prescription medication
  - Counseling or therapy
  - Unmet mental health care need
Agenda for Today

- Symptoms of Generalized Anxiety Disorder Among Adults: United States, 2019
- Symptoms of Depression Among Adults: United States, 2019
- Mental Health Treatment Among Children Aged 5-17 Years: United States, 2019
- Mental Health Treatment Among Adults: United States, 2019

  - All four reports are available at: https://www.cdc.gov/nchs/nhis/index.htm

- Recent Experimental Data on Mental Health from the Household Pulse Survey

- Q & A
Symptoms of Generalized Anxiety Disorder Among Adults

Emily P. Terlizzi, MPH
What is Generalized Anxiety Disorder (GAD)?

- Excessive worry that is difficult to control accompanied by physical symptoms

- GAD-7 – the seven-item Generalized Anxiety Disorder scale
  - A validated scale to screen for and assess the severity of symptoms of anxiety in the past 2 weeks (range: 0-21)
  - Severity: none or minimal (0-4), mild (5-9), moderate (10-14), or severe (15-21)
Results: Severity of Anxiety Symptoms in the Past 2 Weeks Among Adults Aged 18 and Over

In 2019, 15.6% of U.S. adults experienced symptoms of anxiety in the past 2 weeks.
The total percentage of adults who experienced any anxiety symptoms in the past 2 weeks decreased with age.
Women were more likely than men to experience mild, moderate, or severe anxiety symptoms in the past 2 weeks.
Non-Hispanic Asian adults were least likely to experience symptoms of anxiety compared with Hispanic, non-Hispanic white, and non-Hispanic black adults.
Symptoms of Depression Among Adults

Maria A. Villarroel, PhD
What is Depression?

- Feelings of sadness, emptiness, or irritability, accompanied by bodily and cognitive changes lasting at least 2 weeks that significantly affect the individual’s capacity to function.

- PHQ-8 - the eight-item Patient Health Questionnaire
  - A validated diagnostic and severity measure of symptoms of depressive disorders in the past 2 weeks
  - Severity: no or minimal (0-4), mild (5-9), moderate (10-14), or severe (15-24)
Results: Severity of depression symptoms in the past 2 weeks among adults aged 18 and over

In 2019, 18.5% of adults had depression symptoms that were either mild, moderate or severe in the past 2 weeks.
Percentage of adults with symptoms of depression in the past 2 weeks, by symptom severity and age group

Severity of depression symptoms in the past 2 weeks varied by age.
Women were more likely than men to experience mild, moderate, and severe depression symptoms in the past 2 weeks.
Percentage of adults with symptoms of depression in the past 2 weeks, by symptom severity and race and Hispanic origin

Non-Hispanic Asian adults were least likely to experience mild, moderate, or severe symptoms of depression.
Mental Health Treatment Among Children Aged 5–17 Years

Benjamin Zablotsky, PhD
Background

- Approximately 1 in 6 school-aged children have been diagnosed with a mental health disorder

- Typical frontline treatment for mental health disorders among children include psychotropic medication and counseling and therapy

- Timely and nationally representative estimates of treatment usage help to gauge adequacy of services available
Mental Health Treatment

- **Took medication**: Child has taken prescription medication to help with their emotions, concentration, behavior or mental health in the past 12 months

- **Received counseling or therapy**: Child has received counseling or therapy from a mental health professional, such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker in the past 12 months

- **Any mental health treatment**: Child has taken medication, received counseling or therapy, or both, in the past 12 months
Percentage of children who received mental health treatment in the past 12 months, by treatment and age group

Older children were more likely to have received any mental health treatment.
Boys were more likely than girls to have received any mental health treatment.
Percentage of children who received mental health treatment in the past 12 months, by treatment and race and Hispanic origin

The percentage who had received any mental health treatment was highest among non-Hispanic white children.
As the level of urbanization decreased, the percentage of children who received any mental health treatment increased.
Mental Health Treatment Among Adults: United States, 2019

Emily P. Terlizzi, MPH and Geetanjali Zablotsky, Ph.D.

Key findings

Data from the National Health Interview Survey

- In 2019, 19.3% of adults had received any mental health treatment in the past 12 months, including 11.6% who had taken prescription medications for their mental health and 9.9% who received counseling or therapy from a mental health professional.
- Women were more likely than men to have received any mental health treatment.
- Non-Hispanic white adults (23.0%) were more likely than non-Hispanic black (13.6%) and Hispanic (13.3%) adults to have received any mental health treatment.
- Overall, as the level of urbanization decreased, the percentage of adults who had taken medication for their mental health increased, and the percentage who had received counseling or therapy decreased.

In 2018, about 19% of adults experienced any mental illness in the past year, defined as having any mental, behavioral, or emotional disorder in the past year that met criteria of the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, or DSM-IV, excluding developmental or substance use disorders (1.2). This report describes the percentage of U.S. adults who have taken prescription medication for their mental health or have received counseling or therapy from a mental health professional in the past 12 months by select characteristics, based on data from the 2019 National Health Interview Survey (NHIS). Estimates are also presented for any mental health treatment, defined as having taken medication for mental health, received counseling or therapy, or both in the past 12 months.

The percentage of adults who had received any mental health treatment varied by age group.

Figure 1. Percentage of adults aged 18 and over who had received any mental health treatment (more than once), or received counseling or therapy from a mental health professional in the past 12 months, by age group: United States, 2019.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total</th>
<th>18-44</th>
<th>45-64</th>
<th>65 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Receiving Mental Health Treatment</td>
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</table>
Background

- Approximately 1 in 5 U.S. adults experienced any mental illness in the past year
  - Any mental, behavioral or emotional disorder in the past year that met DSM-IV criteria other than developmental or substance use disorders
- Common treatments may include prescription medications or counseling or therapy with a mental health professional
  - Disparities in access to mental health care exist - not all those who could benefit from this type of care can obtain it
Mental Health Treatment

- **Took medication**: Adult had reported taking prescription medication for feelings of anxiety, for depression, or to help with emotions, concentration, behavior, or mental health.

- **Received counseling or therapy**: Adult had reported receiving counseling or therapy from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker.

- **Any mental health treatment**: Adult had reported taking medication, receiving counseling/therapy, or both.
In 2019, 19.2% of adults had received any mental health treatment in the past 12 months.
Percentage of adults who received mental health treatment in the past 12 months, by treatment and sex

Women were more likely than men to have received any mental health treatment.
Percentage of adults who received mental health treatment in the past 12 months, by treatment and race and Hispanic origin

The percentage who had received any mental health treatment was highest among non-Hispanic white adults.
Percentage of adults who received mental health treatment in the past 12 months, by treatment and urbanization level

As urbanization decreased, the percentage of adults who had taken medication for their mental health increased, and the percentage who had received counseling or therapy decreased.
Recent Experimental Data on Mental Health from the Household Pulse Survey

Stephen J. Blumberg, PhD
Household Pulse Survey

- Developed and conducted by the U.S. Census Bureau
- **Partners:** NCHS, Bureau of Labor Statistics, National Center for Education Statistics, Department of Housing and Urban Development, and USDA Economic Research Service

**Timeline:**
- March 23: First Meeting
- April 23 – July 21: Phase 1 Data Collection
- August 19 – October 26: Phase 2 Data Collection
Household Pulse Survey

- **Recruitment**: Email and text invitations to take an online survey
- **Frames**: Email and cell-phone contact frames matched to Census Bureau’s Master Address File (MAF) records
- **Phase 2 sample size**: Nearly 100,000 adults every 2 weeks
- **Phase 2 response rate**: About 10%
## Symptoms of Anxiety or Depression

<table>
<thead>
<tr>
<th></th>
<th>Household Pulse Survey GAD-2 and PHQ-2* Sept 2-14, 2020</th>
<th>NHIS GAD-7 and PHQ-8 “moderate or severe” Jan–Dec 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms of <strong>Anxiety</strong> Disorder</td>
<td>31.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Symptoms of <strong>Depressive</strong> Disorder</td>
<td>24.4%</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

*Adults classified by the GAD2 and PHQ2 as having symptoms of anxiety or depressive disorder have symptom frequency levels similar to “moderate or severe” symptoms on the GAD7 and PHQ8 on NHIS. For more information on scoring, see [https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm](https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm)*
Symptoms of Anxiety or Depression Over Time
Household Pulse Survey, April 23 – September 14

PHASE 1

PHASE 2
Symptoms of Anxiety or Depression by Age
Household Pulse Survey, September 2-14

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Symptoms of Anxiety Disorder</th>
<th>Symptoms of Depressive Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-29</td>
<td>40.6</td>
<td>34.9</td>
</tr>
<tr>
<td>30-39</td>
<td>37.9</td>
<td>27.2</td>
</tr>
<tr>
<td>40-49</td>
<td>33.7</td>
<td>25.8</td>
</tr>
<tr>
<td>50-59</td>
<td>30.8</td>
<td>23.1</td>
</tr>
<tr>
<td>60-69</td>
<td>24.9</td>
<td>19.4</td>
</tr>
<tr>
<td>70-79</td>
<td>19.2</td>
<td>14.9</td>
</tr>
<tr>
<td>80+</td>
<td>17.7</td>
<td>13.3</td>
</tr>
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## Mental Health Treatment

<table>
<thead>
<tr>
<th></th>
<th>Household Pulse Survey</th>
<th>NHIS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>“Last 4 weeks”</td>
<td>“Past 12 months”</td>
</tr>
<tr>
<td></td>
<td>Sept 2-14, 2020</td>
<td>Jan–Dec 2019</td>
</tr>
<tr>
<td>Took Prescription Medication</td>
<td>19.6%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Received Counseling or Therapy</td>
<td>9.1%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Any Mental Health Treatment</td>
<td>22.8%</td>
<td>19.2%</td>
</tr>
</tbody>
</table>
Mental Health Treatment by Age
Household Pulse Survey, September 2-14

Took Prescription Medication | Received Counseling or Therapy

Age (years) | Percent | Percent
---|---|---
18-29 | 13.0 | 18.4
30-39 | 12.4 | 19.5
40-49 | 10.5 | 19.9
50-59 | 8.1 | 21.0
60-69 | 5.9 | 21.1
70-79 | 3.7 | 18.1
80+ | 3.5 | 11.7
# Unmet Need for Counseling or Therapy

<table>
<thead>
<tr>
<th></th>
<th>Household Pulse Survey</th>
<th>NHIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Last 4 weeks, for any reason”</td>
<td>“Past 12 months, due to cost”</td>
</tr>
<tr>
<td></td>
<td>Sept 2-14, 2020</td>
<td>Jan–Dec 2019</td>
</tr>
<tr>
<td>Needed Counseling or Therapy, But Did Not Get It</td>
<td>9.7%</td>
<td>4.3%*</td>
</tr>
</tbody>
</table>
Unmet Need for Counseling or Therapy
Household Pulse Survey, September 2-14
Unmet Need for Counseling or Therapy
Household Pulse Survey, September 2-14

- Female: 12.3%
- Male: 6.9%

- Less than a high school diploma: 10.4%
- High school diploma or GED: 7.6%
- Some college: 11.7%
- Bachelor's degree or higher: 9.4%
Unmet Need for Counseling or Therapy
Household Pulse Survey, September 2-14

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>9.9</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>9.5</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>11.2</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>4.4</td>
</tr>
<tr>
<td>Other and multiple races, non-Hispanic</td>
<td>15.7</td>
</tr>
</tbody>
</table>
Did Not Experience Symptoms of Anxiety and/or Depression Over the Last 7 Days

Among adults who experienced symptoms over the last 7 days...

- 33.3% took prescription medication
- 16.0% received counseling or therapy
- 37.9% received any mental health treatment
- 21.7% indicated an unmet need for counseling/therapy
Household Pulse on the NCHS Website

https://www.cdc.gov/nchs/covid19/health-care-access-and-mental-health.htm
Questions?

- Please submit your questions via the Q&A feature in the Zoom application
- The facilitator will address questions as time allows. Questions not answered may be forwarded to paoquery@cdc.gov

https://www.cdc.gov/nchs
https://www.cdc.gov/nchs/nhis