

Expanding the Use of NCHS' Research and Development Survey to Quantify Health Characteristics During the Coronavirus Pandemic



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Research and Development Survey (RANDS)

- Ongoing, periodic set of surveys conducted by the NCHS Division of Research and Methodology
- Designed to expand NCHS' methodological research:
 - To supplement NCHS' survey and questionnaire evaluation efforts
 - To explore ways to integrate data from commercial survey panels with high-quality data collections

RANDS Program So Far...

	RANDS 1	RANDS 2	RANDS 3	RANDS during COVID-19 (2 Rounds)	RANDS 4	RANDS 5 (Planned)
Year	2015	2016	2018	2020	2020	2021
Survey Focus	Health Conditions and Behaviors	Health Conditions and Behaviors	Disability and Opioids	COVID-19-related concepts	Disability and Opioids	National Survey of Family Growth

RANDS Sample Sources

Recruited commercial survey panels

- Managed by commercial or non-governmental firms and organizations
- Panel is recruited based on statistical sampling methodology
- Typically well-maintained with good levels of panel retention
- Very few in the United States—to our knowledge, there are only six
- There is a *theoretical* ability to assign probabilities of selection
- Major coverage and response issues as compared to NCHS' household surveys

RANDS Sample Sources

- Gallup Panel (RANDS 1 and RANDS 2)
 - Panel recruitment via Gallup’s Dual Frame Random Digit Dial (RDD) Daily Tracking Poll
 - No non-response follow up (NRFU) during recruitment
 - Non-internet panelists surveyed via phone or mail
- NORC’s AmeriSpeak Panel (RANDS 3 through present)
 - Panel recruitment via a dedicated mail out/mail back survey
 - Extensive NRFU (~60% of panel comes from this effort)
 - Non-internet panelists surveyed via phone

Adapting RANDS for Estimation: RANDS during COVID-19

- Traditional NCHS surveys require advanced planning and cannot always adapt quickly to collect data on major events in real-time
- RANDS, as a largely web-based survey, could provide some information on COVID-19 in a rapid and timely way
- NCHS worked with the Office of Management and Budget to adapt the purpose of RANDS from a strictly methodological survey to one that could produce a limited set of experimental estimates
- The new survey was named RANDS during COVID-19 to distinguish it from previous versions of RANDS

What is RAN DS during COVID-19?

- Two-round survey, with a longitudinal design
- Web and phone mode, with a minimum sample size of 6,000 in the first round and 5,000 in the second round
- The questionnaire includes several health topics:
 - Health Status, Chronic Conditions, Depression and Anxiety
 - **Loss of Work due to Illness with COVID-19**
 - Health Insurance and Health Care Access
 - **Telemedicine Access and Use**
 - COVID-19 Related Health Care and Behaviors
 - **Reduced Access to Health Care**

Data Overview

8,663

- Randomly selected adult panelists invited to participate

6,800

- Completed surveys
- 94% by web; 6% by telephone

23%

- Weighted cumulative response rate

Survey responses collected: June 9, 2020 – July 6, 2020

Question Evaluation on RANDS during COVID-19

Three general areas:

- Planned/New NHIS questions
 - Unmet Care
 - Autoimmune Chronic Conditions
 - COVID-19 testing and results
 - Intensity of COVID-19 symptoms
- RANDS “estimation” questions
- General coronavirus/COVID-related topics
 - Understanding of terms such as “quarantine”
 - Exploration of reference period terminology

Producing Experimental Estimates

- Experimental estimates were produced using calibrated weights to account for possible differences in the survey design
- Sample weights were raked to the 2018 National Health Interview Survey sample adult weights (n=25,417) to adjust for differences in demographic and health factors
- After raking, the weighted distributions of the calibration variables in RANDS matched the NHIS

RANDS during COVID-19 Round 1 Release

- National and subgroup estimates are reported online for the following groups:
 - Age group
 - Race/Hispanic origin
 - Sex
 - Education
 - Urbanization
 - Chronic conditions
- Topic areas:
 - Loss of work due to illness
 - Telemedicine
 - Reduced access to care

<https://www.cdc.gov/nchs/covid19/rands.htm>

Loss of Work due to Illness

The inability to work at any point in the past week due to being sick or having a family member sick with COVID-19

0.9% of U.S. adults were unable to work due to personal or family member illness



Loss of Work due to Illness Highlights

- Non-Hispanic Black adults had the highest percent of work loss (2.5%) followed by Hispanic adults (1.3%)
- Adults with some college education reported the highest percent of work loss (1.6%)
- Loss of work was similar among males and females
- Loss of work for adults with chronic conditions ranged from 0.7% (diagnosed diabetes) to 1.0% (current asthma)

Telemedicine

Access and use of telemedicine, including video and telephone appointments both before and during the pandemic

14.1% of adults in the U.S. have a provider that offered telemedicine prior to the pandemic

36.6% of adults in the U.S. have a provider that offered telemedicine in the last two months

24.2% of adults in the U.S. had one or more telemedicine appointments in the last two months

Telemedicine Highlights

Access

- In the last two months, access varied by age group, sex, and education
- In the last two months, access was similar between metro and non-metro areas

Use

- Telemedicine usage was higher among adults 65 years and older and females compared to adults 18-64 years and males
- Telemedicine usage was above the national average for adults with diagnosed chronic conditions

Reduced Access to Care

Inability to receive medical care for any reason and due to the pandemic

- ✓ Dental care
- ✓ Diagnostic or medical screening test
- ✓ Hearing care
- ✓ Prescription drugs or medications
- ✓ Regular checkup
- ✓ Surgical procedure
- ✓ Treatment for ongoing condition
- ✓ Urgent care
- ✓ Vision care

48.4% of U.S. adults missed one or more types of care in the last two months for any reason

38.7% of U.S. adults missed one or more types of care in the last two months due to the pandemic

Reduced Access to Care Highlights

Reduced access to care reflects amount of missed care and is affected by the varying need for care in the first place

- Care missed most often: dental care, regular check ups, vision care
- Care missed least often: surgical procedures, urgent care, hearing care

Certain types of care were impacted more than others

- Relatively high % missed care due to the pandemic: dental care, vision care, surgical procedures
- Relatively low % missed care due to the pandemic: urgent care, prescription drugs or medications

Summary

- RANDS is a platform designed for methodological purposes including conducting survey question evaluation and statistical research
- NCHS adapted RANDS to produce timely data on COVID-19
- Experimental estimates from the first round are currently available at:
<https://www.cdc.gov/nchs/covid19/rands.htm>
- Round 2:
 - Data collection was conducted in August
 - Experimental estimates will be released in September

Future RANDS during COVID-19 Research

- Questionnaire evaluation:
 - Report combining RANDS findings with the findings from a series of cognitive interviews focused on coronavirus-related survey questions
- Estimation:
 - Statistical testing comparing round 1 and 2
 - Evaluation of COVID-19 data from opt-in sample (n=10,000) from each round



<https://www.cdc.gov/nchs/rands>

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For more information, contact CDC
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