# RANDS During COVID-19 Round 2 Non-Probability Sample Technical Documentation

## Overview

The National Center for Health Statistics (NCHS) Division of Research and Methodology (DRM) contracted NORC at the University of Chicago (NORC) to collect timely information on COVID-19-related health outcomes from U.S. adults as a special iteration of the Research and Development Survey (RANDS). This special iteration of RANDS, referred to as RANDS during COVID-19, was conducted as a three-round survey, using both a probability-based panel and an opt-in commercial survey panel for the first two rounds. Unlike the probability-based sample, the non-probability sample did not have a longitudinal design in Round 1 and Round 2. This technical documentation describes the non-probability sample in the second round of RANDS during COVID-19 (RANDS during COVID-19 Round 2 Non-Probability Sample).

While RANDS has previously been collected for methodological research purposes, RANDS during COVID-19 was designed to also collect and report timely information on COVID-19-related health measures. The non-probability sample of RANDS during COVID-19 was collected as a supplement to the probability sample for research purposes and was not included in the calculation of publicly-released experimental estimates. On the other hand, responses collected from the probability-based sample of RANDS during COVID-19 were used to produce a set of experimental estimates for selected topics, including loss of work due to illness with COVID-19, telemedicine access and use, and health care access. The estimates are considered experimental as research is underway to improve the calibration method and understand potential sources of measurement error. Experimental national and subnational estimates for the selected outcomes are published online (https://www.cdc.gov/nchs/covid19/rands.htm).

To evaluate the question-response pattern as in previous rounds of RANDS, RANDS during COVID-19 Round 2 included probe questions and five experiments. The five experiments were:

1) Unspecified vs. Specified COVID-19 Tests: Comparing between the following two ways of inquiring about receiving diagnostic tests for COVID-19: (a) a standalone question not specifying the type of the COVID-19 test the respondent received, and (b) a series of two questions with the first one inquiring about having a test for determining whether one having been infected with the COVID-19 virus *at the time of the test*, followed by another question inquiring about having an antibody test for determining whether one had been infected with the COVID-19 virus *in the past*. This experiment was also included in the Round 1 survey (RANDS during COVID-19 Round 1 Probability Sample Technical Documentation 2022).

2) Close-Ended Multi-Punch Probes vs. Open-Ended Probes: Comparing responses between close-ended response options with the "select-all-that-apply" style versus an open-ended probe on: (a) the respondent's interpretation of quarantine/isolation behavior and (b) how the respondent became aware of whether his/her healthcare provider offered telemedicine. Panelists who received the close-ended multi-punch options for one question received the

open-ended probe for another. Part (a) was also included in the Round 1 survey (RANDS during COVID-19 Round 1 Probability Sample Technical Documentation 2022).

3) Immunocompromised Test: Comparing between the following two ways of inquiring whether the panelist is immunocompromised: (a) a single close-ended question about whether the panelist currently has a health condition that weakens the immune system, and (b) a pair of questions, with one question about whether the panelist had any medical treatment that may weaken the immune system in the past 12 months, followed by the same question in (a).

4) Symptoms Probes: Comparing between the following two open-ended probes for panelists who indicated having any COVID-19 symptom: when indicating his/her severity of symptoms, (a) "what" was the respondent thinking about versus (b) "why" the respondent answered such severity.

5) Time-of-Reference: Comparing between the following two reference time frames: (a) last four weeks and (b) past 12 months, for three questions related to mental health and emotional well-being.

The non-probability sample was recruited through the Dynata panel (https://www.dynata.com/). More information about the Dynata panel can be found: http://info.dynata.com/rs/105-ZDT-791/images/Dynata-Panel-Book-2020.pdf. RANDS during COVID-19 Round 2 survey was administered to the opt-in panelists as online web surveys only. This documentation describes the data collection and sample weighting for the non-probability sample.

**Summary of Field Work**

The target population for this study consisted of the general population of the United States aged 18 and older. The source of the non-probability sample for this study was the Dynata panel, a non-probability online opt-in panel. For the non-probability sample, the RANDS during COVID-19 Round 2 survey was administered in English via online web surveys. Responses from the online opt-in panel were collected from August 3, 2020 to August 20, 2020.

In total, 5,502 panelists completed the RANDS during COVID-19 Round 2 questionnaire. Additional 1,073 panelists participated in the study but were removed from the dataset prior to weighting adjustment. Among these 1,073 respondents, 815 started but did not complete the survey, 76 respondents either completed the survey in less than one third of the median duration and/or had high refusal/skipping rates (defined as refused/skipped more than 50% of eligible questions), and 182 were unqualified respondents.

NCHS did not provide an incentive for participation in RANDS during COVID-19.

## Sample Weighting

The final RANDS during COVID-19 Round 2 Non-Probability Sample was calibrated by NORC to U.S. population counts to account for under-coverage of some groups responding to the survey. Because there is no known survey sampling design for the opt-in non-probability sample, each qualified respondent was assigned with a design weight of 1. As with the probability sample, the non-probability sample was calibrated by raking to the known population totals associated with the following socio-demographic characteristics: age, sex, education, race/Hispanic ethnicity and Census Division. Any extreme weight was trimmed based on a criterion of minimizing the mean squared error associated with key survey estimates and then weights were re-raked to the same population totals. Once weighting adjustment achieved the goal of matching the Current Population Survey (CPS) population post-stratum totals, the weights (WEIGHT_OptIn) were proportionally adjusted to sum to the total number of respondents in the RANDS during COVID-19 Round 2 Non-Probability Sample (n=5,502). Because the RANDS during COVID-19 Round 2 Non-Probability Sample does not have a known survey sampling design, it cannot be used to produce nationally or sub-nationally representative estimates.

## Reference

National Center for Health Statistics. RANDS during COVID-19 Round 1 Probability Sample Technical Documentation. Hyattsville, Maryland. 2022.

## Suggested Citation

National Center for Health Statistics. RANDS during COVID-19 Round 2 Non-Probability Sample Technical Documentation. Hyattsville, Maryland. 2022.