NCHS Rapid Surveys System

Technical Notes

Round 2: Data collected October-November 2023

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CDC
U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

Introduction

The National Center for Health Statistics (NCHS) Rapid Surveys System (RSS) is a platform that utilizes commercially available probability-based online panels to provide time-sensitive data about emerging and priority health concerns. RSS began fielding in 2023, and has a different questionnaire administered each round of data collection.

To provide timely access to selected point estimates based on RSS content, dashboards and web tables are released following each round of data collection. Percentages are shown by selected population subgroups such as age group, sex, race and Hispanic origin, education, household income as a percentage of the federal poverty level, region, and urbanicity.

Methods

Data source

The target population of RSS Round 2 (RSS-2) is all U.S. adults aged 18 and older. Data were collected in October-November 2023 from two commercial panel providers using the same questionnaire (www.cdc.gov/nchs/data/rss/round2/questionnaire.pdf). Two samples were drawn from each panel for the purpose of evaluating two data collection methodologies. For each panel, Sample 1 was collected using standard protocols (method 1) and Sample 2 was collected using additional efforts to increase response rates and sample representativeness (method 2). As they were collected using experimental methods, responses from Sample 2 in each panel were not used to produce published RSS-2 estimates in dashboards and web tables. The combined completion rate for both panels using method 1 was 37.2% (1).

Both panel providers collect profile information from their panelists on a regular basis, including several sociodemographic and geographic characteristics. As these data were already available for RSS respondents as part of their panel profile data, questions about these characteristics were not re-asked on the RSS questionnaire. These measures were harmonized into common categories, but the information was collected separately from RSS, at different times and using different questions in each panel.

Details on data collection, sampling methods, response rates, weighting methodologies, and other data processing components can be found in the Survey Description (www.cdc.gov/nchs/data/rss/round2/survey-description.pdf) and the Quality Profile (https://www.cdc.gov/nchs/data/rss/round2/quality-profile.pdf).

Estimation procedures

The RSS-2 questionnaire included several variables which were used to calibrate survey weights to NHIS population totals. These final calibrated weights were used to generate the estimates in the released dashboards and web tables.

Cases with missing data are excluded from the analysis, unless otherwise mentioned. Data would be considered missing for a variable if, for example, the respondent refused or didn't know how to respond, or if they skipped the question on the web. These are henceforth referred to as nonresponse. Overall, item nonresponse rates were low, averaging <2% per item in the combined file. Several of the sociodemographic characteristics used in the dashboards and web tables have very low or no missing values, as they were imputed when missing for weighting purposes. A server error occurred for one of the panel providers which caused the skip logic for three questions to be distorted: ONL_SOCCOM, PAI_WKLM3M, and CPN_MEDICARE. The item nonresponse rates for these three items for panel provider 1 were 14.3%, 13.9%, and 13.8%, respectively. Additionally, four other variables had item nonresponse rates higher than 5% in the combined dataset: SWM_HELPDRWN (6.6%; ever been trained on how to help a drowning person without putting yourself in danger) in the swimming (SWM) section, ADHD_WHCHMED (12.9%; prescription medications taken in the past 12 months to help with ADHD), ADHD_RX3M (14.7%; plan to have another telehealth visit in the next three months to get a prescription for ADHD medications), and ADHD_CNSEL3M (17.0%; plan to have another telehealth visit in the next three months to receive counseling or therapy for ADHD) in the attention-deficit and hyperactivity disorder (ADHD) section. For the three ADHD items, no more than 232 adults received these questions. Data users using these measures are encouraged to consider the impact of nonresponse, if applicable to their analysis/research. Please see the Quality Profile (https://www.cdc.gov/nchs/data/rss/round2/quality-profile.pdf) for more information.

Data limitations

While faster to produce compared to traditional household surveys, web-based panel surveys are subject to issues regarding accuracy and usability. Web-based panel surveys often have lower response rates than large-scale national surveys and may underrepresent certain subpopulations. This can lead to biased estimates when attempting to make inferences to the national population. Panel survey nonresponse occurs at many stages, including panel recruitment, panel retention, and at the individual survey level. RSS aims to compensate for nonresponse through calibration and weighting of the RSS to gold standard NCHS surveys. However, the effectiveness of these weighting adjustments for nonresponse may vary across survey estimates and will depend on the availability of appropriate gold standard survey data. RSS also includes a benchmarking component, which allows comparison of estimates to those

from the same questions on other surveys, to facilitate bias assessments for a wide array of health-related estimates. These bias assessments provide context on the effectiveness of the weighting adjustments and quality of estimates generated from RSS. For an evaluation of the quality of RSS-2 data, including the calibration of weights and benchmark analysis, please see the Quality Profile (https://www.cdc.gov/nchs/data/rss/round2/quality-profile.pdf).

Another limitation of RSS is that some of the sociodemographic and geographic variables are drawn from panel profile variables, which are collected separately from RSS, and are collected at different times than the RSS health topic content and using different questions in each panel. Although they are updated regularly, it is not known whether any of these characteristics had changed between the last time the panel collected the information and the respondent completed the RSS-2 questionnaire.

Variance estimation and statistical reliability

All estimates shown meet the NCHS standards of reliability as specified in *National Center for Health Statistics Data Presentation Standards for Proportions* (2). Unreliable estimates are indicated with an asterisk (*) and are not shown. Reliable estimates with an unreliable complement are shown but are indicated with two asterisks (**). Complements are calculated as 100 minus the percentage. The standards are applied directly for percentages. Two-sided 95% confidence intervals are calculated using the Clopper-Pearson method adapted for complex surveys by Korn and Graubard (2). Standard errors used in this calculation were obtained using SUDAAN software, which takes into account the complex sampling design of RSS. The Taylor series linearization method was used for variance estimation.

Definitions of selected terms

Sociodemographic and geographic characteristics from panel profile data

The following sociodemographic and geographic characteristics used as covariates in these dashboards and tables were collected as part of the panel profile information (not RSS questionnaire) and harmonized between the two panels.

Age – Age is recorded in single years and grouped into categories depending on the purpose of the table or dashboard.

Education – Categories of education are based on years of school completed or highest degree obtained. GED is General Educational Development high school equivalency diploma.

Sex – Respondents are classified as Male or Female.

Hispanic origin and race – Hispanic origin and race are collected as two separate and distinct concepts by the two panels. Hispanic persons may be of any race. Hispanic origin and race is divided into Hispanic and Not Hispanic. Not Hispanic is further divided into Black or African American only, non-Hispanic; White only, non-Hispanic; and Other single or multiple races, non-Hispanic. Certain tables also show Asian only, non-Hispanic. Note that the Race and Ethnicity Measurement section of the questionnaire content (see below) is considered experimental and handles the definition and categorization of race and Hispanic ethnicity differently.

Household income as a percentage of the federal poverty level – Categories presented are Less than 100% FPL, 100% to less than 200% FPL, and 200% FPL and greater. FPL is federal poverty level.

Region – In the geographic classification of the U.S. population, states are grouped into four regions used by the U.S. Census Bureau:

    Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont
    Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin
    South: Alabama, Arkansas, Delaware, District of Columbia, Kentucky, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia
    West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Urbanicity – Based on the 2013 NCHS Urban-Rural Classification Scheme for Counties (3) which groups U.S. counties and county-equivalent entities into six categories: large central metropolitan, large fringe metropolitan, medium metropolitan, small metropolitan, micropolitan, and non-core. For the RSS dashboards and tables, medium and small metropolitan are combined into a single group, and micropolitan and non-core are combined into a single group (nonmetropolitan).

Select outcomes collected on questionnaire

Estimates for most measures are generated from a single question on the questionnaire. For exact wording of questions, please see the questionnaire (www.cdc.gov/nchs/data/rss/round2/questionnaire.pdf). Below are additional details on some of the outcomes shown in the dashboards and tables.

Attention Deficit/Hyperactivity Disorder (ADHD) - Estimates of adults who were ever diagnosed with ADHD, and who currently have ADHD are shown among all adults – those who were never diagnosed with ADHD were included as not currently having ADHD.

Chronic pain – A question asking about frequency of pain experienced in the last 3 months had the following answer categories: Never, Some days, Most days, and Every day. Those who responded 'Most days' or 'Every day' were asked additional questions about receiving medical care for their pain. Those who responded they were currently receiving medical care for pain were asked if they made decisions regarding treatment for their pain in the past 12 months. Decisions included getting prescriptions, referrals for care, and procedures. Those who responded yes were asked additional questions about how often they were treated with respect, listened to carefully, and asked for their opinions or beliefs by their health care provider. These last three questions had the following answer categories: Never, Sometimes, Usually, and Always.

Contraception use – Estimates of contraception use are shown among female adults ages 18-49 who responded that they had sexual intercourse with a male partner in the last 12 months. Estimates of reasons for changing or stopping a method used to prevent pregnancy are shown among those who had used a contraception method to prevent pregnancy other than sterilization, including emergency contraception.

Fit testing of hearing protection devices – Answer categories for a question asking about ever using hearing protectors when exposed to loud noises at work were as follows: Yes, No, or I have never worked around loud noises. Estimates for ever using hearing protectors when exposed to loud noises at work are shown for those who responded Yes or No and did not include responses from those reporting never worked around loud noises.

Illegal drugs and naloxone (Narcan) awareness - Questions about concern for ingredients in the prescription pills or medications that were ordered online without a prescription had the following answer categories: Not at all concerned, A little concerned, Somewhat concerned, and Very concerned. Estimates of adults who know naloxone is available in specified settings and who believe it should be available in other settings are shown among adults who had ever heard of the medication naloxone. Adults who do not carry naloxone were asked questions about a few potential reasons

why people in general (not necessarily why they, themselves) do not carry naloxone. There may be other reasons why people do not carry naloxone other than the three asked in these questions.

Online connectedness - Questions about the frequency of use of social media, online games, and online message boards had the following answer categories: Daily, Weekly, Monthly, or Never. Adults who reported Daily, Weekly, or Monthly were included as ever using these internet platforms. Additional questions about whether individuals feel socially isolated or feel like part of a community when using these internet platforms were asked of adults who selected 'Daily,' 'Weekly,' or 'Monthly' use. These questions had the following answer categories: Strongly agree, Somewhat agree, Somewhat disagree, and Strongly disagree. Estimates for these measures are shown for adults who selected 'Somewhat agree' or 'Strongly agree.'

Swimming – Adults were asked to rate their swim skill level. Those who reported that they were at least comfortable standing in water, can swim in water over their head, or can swim multiple strokes efficiently were asked whether they learned to swim from a friend or relative, or whether they taught themselves how to swim. Estimates of learning to swim from a friend or relative, as well as estimates of teaching oneself to swim, included those who reported they did not know how to swim in the denominators. In addition, estimates of never taking a swim lesson included those who reported having taken a group lesson or private lesson in the denominator. Questions asking about in the past 6 months, how many days were spent around swimming pools and spent swimming, boating, fishing, or participating in water sports in another body of water such as an ocean, lake, river or stream had the following answer categories: Never, 1-6 days, 7-12 days, and 13 or more days. Responses of 1-6 days, 7-12 days, and 13 or more days are included as having spent time around either swimming pools or other bodies of water in the past 6 months. Questions about how often adults drank alcoholic beverages when spending time around swimming pools or other bodies of water were asked of those who reported spending time around pools and other bodies of water, respectively, and had the following answer categories: Every time, More than half the time, Less than half the time, and Never. Estimates shown of adults who ever drank alcoholic beverages in these scenarios include responses of Every time, More than half the time, and Less than half the time. Estimates of having received CPR training in the last two years included those who reported they had never received CPR training in the denominator.

Technology-facilitated sexual violence - Estimates are shown for adults who responded they have ever had a sexual photo or video electronically shared without their consent, had fake pornographic content created or shared online without their consent, or were threatened with sharing a sexual photo or video electronically. Among adults who have ever been threatened, estimates are shown for those who reported select reasons why they were threatened with sharing a sexual photo or video without consent, including to

receive additional sexual photos or videos, to initiate or maintain a sexual relationship, to obtain money, to remain in or preserve a relationship, or for some other reason.

Further information

Data users can obtain the latest information about RSS by periodically checking the website (https://www.cdc.gov/nchs/rss/rapid-surveys-system.html). This website will feature downloadable public-use data and documentation for RSS, as well as important information about any modifications or updates to the data or documentation.

References

1. National Center for Health Statistics. Rapid Surveys System (RSS): Round 2 survey description. 2024.
   Available from: www.cdc.gov/nchs/data/rss/round2/survey-description.pdf.
2. Parker JD, Talih M, Malec DJ, Beresovsky V, Carroll M, Gonzalez JF Jr, et al. National Center for Health Statistics data presentation standards for proportions. National Center for Health Statistics. Vital Health Stat 2(175). 2017.
3. National Center for Health Statistics. NCHS urban–rural classification scheme for counties. Available from:
   https://www.cdc.gov/nchs/data_access/urban_rural.htm#2013_Urban-Rural_Classification_Scheme_for_Counties.

Suggested citation

Recommended citations for specific tables and charts are included in the notes at the end of each page. The citation for the Technical Notes is as follows, although it should also include the date accessed as it may be edited periodically when new tables are added.

Technical Notes. NCHS Rapid Surveys System. Round 2. April 2024. National Center for Health Statistics. Available from: www.cdc.gov/nchs/data/rss/round2/technical-notes.pdf.