NCHS Rapid Surveys System

NATIONAL CENTER FOR HEALTH STATISTICS

Quality Profile

Round 6: Data collected February-March 2025

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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 data differ in quality from NCHS' traditional household surveys and findings should be interpreted within this context. This quality profile reports on various aspects of data quality and provides transparency to data users about data collection, processing, and methodological limitations. The quality profile is organized by various components of the data quality including data collection, data processing, weighting, and benchmarking.

RSS Round 6 (RSS-6) featured data collection from two commercial panels, which are referred to as Panel 1 and Panel 2 in this report. A separate document, the Round 6 Survey Description, which provides detailed information on the data collection weighting methodologies, recoding, and other data processing components is available.

Data Collection

Sampling and Data Collection Dates

The target population of RSS-6 is U.S. adults age 18 and older. Each panel provider drew a sample from their respective panels for RSS-6. Table 1 (Quality profile tables) presents the targeted sample size, the number of persons sampled, and the number of respondents, overall and by panel provider. The target number of completed surveys was 4,000 for Panel Provider 1 and 3,000 for Panel Provider 2. To achieve the targeted number of completed interviews, samples of 9,570 (Panel Provider 1) and 4,342 (Panel Provider 2) adult panelists were drawn.

Data collection commenced on February 5, 2025, and finished on March 3, 2025, for Panel Provider 1. Data collection for Panel Provider 2 started on February 5, 2025, and finished on February 24, 2025. Of the 4,884 fully completed interviews for Panel Provider 1, 428 were completed by computer-assisted telephone interviewing (CATI), while all other completed interviews were self-administered via computer-assisted web interviewing (CAWI). For Panel Provider 2, all 3,039 interviews were completed via CAWI.

Response and Completion Rates

The survey completion rates shown in Tables 2 and 3 are based on American Association for Public Opinion Research (AAPOR) Response Rate Definition #5 or AAPOR RR5 (AAPOR, 2023) and reflect the percent of sample members who completed the survey. All panelists selected for the survey, for both panels, were deemed eligible to participate. Note that survey completes exclude any cases removed for data quality reasons (e.g., speeding, excessive item nonresponse).

The unweighted, combined survey completion rate for RSS-6 was 57.0%. Rates by panel provider slightly differed: 51.0% for Panel Provider 1 and 70.0% for Panel Provider 2 (Table 2, Quality profile tables). Final cumulative response rates (AAPOR CUMRR1) for RSS-6 are also shown in Table 2. Panel Providers 1 and 2 compute the cumulative response rate differently. For Panel Provider 1, the final cumulative response rate of 12.2% is the product of a household panel recruitment rate, a household panel retention rate, and the RSS-6 survey completion rate. The final cumulative response rate for Panel Provider 2 was 4.1% and is the product of a household panel recruitment rate, a household profile rate, and the RSS-6 survey completion rate. (See Table 2 for definitions of household panel recruitment rate, household panel retention rate, and household profile rate.)

Unweighted completion rates, overall and by select demographic characteristics, are presented in Table 3 (Quality profile tables). Note that the subsequent comparisons of completion rates by panel provider were not subjected to tests for statistical significance. While completion rates were consistently higher for Panel Provider 2, patterns of completion rates by demographics were similar across the panel providers. For example, adults age 65 and older generally had the highest completion rate of all age groups for both providers, while adults ages 18-24 generally had the lowest completion rate. Differences in completion rates by race and Hispanic origin were observed for both providers, with completion rates generally higher among White, non-Hispanic adults and lower among Hispanic adults. Differences in completion rates by educational attainment were also observed for both panel providers. Adults with less than a high school diploma or a GED tended to have lower completion rates than adults in other education groups. Completion rates by urbanization level differed by panel provider, with metropolitan adults generally completing the survey at a lower rate than nonmetropolitan adults for Panel Provider 1, while metropolitan adults tended to complete the survey at a higher rate than nonmetropolitan adults for Panel Provider 2, although the difference was small (0.5 percentage points). Finally, completion rates by sex differed by panel provider, with females generally completing the survey at a higher rate than males for Panel Provider 1, while males tended to complete the survey at a higher rate than females for Panel Provider 2.

Survey Duration

As shown in Table 4 (Quality profile tables), the median survey completion time among respondents who completed interviews in 60 minutes or less in one visit to the survey instrument was 12.9 minutes for Panel Provider 1, while the median completion time for Panel Provider 2 was 13.6 minutes. Completion times were only evaluated among respondents who completed interviews in 60 minutes or less in a single visit, as survey durations were calculated from the initial entry into the instrument until the survey was submitted, which could be over multiple hours or days for respondents who return to the instrument at another time. Completions in 60 minutes or less in a single visit accounted for 85.9% of all completed surveys. Section times were largely consistent between panel providers, with only four sections having a median completion time of longer than 1 minute (stroke signs and symptoms (SSS); produce prescription programs (PPP); healthcare access and utilization (ACC); and HPV self-testing (HPV)). No section, for either panel provider, had a median completion time of greater than 2 minutes. A complete list of all questionnaire sections is available.

Survey Breakoffs

Survey breakoffs for RSS-6 were defined as starting, but not fully completing, the survey. Panelists who broke off and did not fully complete the survey were considered nonrespondents for response and completion rate calculations and were not included on the final datafile. Overall, breakoffs were minimal across the two panel provider surveys. There was a total of 115 breakoffs (out of 4,999 panelists who started the survey) in the Panel Provider 1 survey, representing a breakoff rate of 2.3%, while 108 panelists (out of 3,147) broke off the Panel Provider 2 survey for a breakoff rate of 3.4% (Table 5, Quality profile tables).

The number and percentage distribution of breakoffs by section for each panel provider and combined are presented in Table 5. The questionnaire section producing the largest percentage of breakoffs for Panel Provider 1 was stroke signs and symptoms (SSS; Panel Provider 1 = 21.7%, Panel Provider 2 = 15.7%), whereas the questionnaire section producing the largest percentage of breakoffs for Panel Provider 2 was the introductory portion of the survey up through the first question on self-reported health status (HIS; Panel Provider 2 = 36.1%, Panel Provider 1 = 12.2%). Other notable producers of breakoffs were chronic conditions (CHR) for Panel Provider 1 (11.3%); produce prescription programs (PPP) for both providers (Panel Provider 1 = 8.7%, Panel Provider 2 = 6.5%); HPV self-testing (HPV) for Panel Provider 2 (6.5%); and healthcare access and utilization (ACC) for Panel Provider 1 (7.0%).

Item Nonresponse

Item nonresponse for RSS-6 was defined as refused responses entered by interviewers in the CATI mode, as well as skipping a question for which the panelist was eligible (soft refusal) in CAWI. Table 6 (Quality profile tables) summarizes the number and percent of questions by level of item nonresponse. Of the 171 survey items, over half had an item nonresponse rate of less than 1% for Panel Provider 1 (60.8%), Panel Provider 2 (57.3%), and in the combined file (59.6%). Seven to eight questions had item nonresponse of 5% to less than 10% (Panel Provider 1 = 4.7%; Panel Provider 2 = 4.1%). Combined, there were eight questions with item nonresponse of 5% to less than 10%. Finally, one to two questions had item nonresponse greater than 10% (Panel Provider 1 = 0.6%; Panel Provider 2 = 1.2%). Combined, there was one question with item nonresponse greater than 10%.

Table 7 (Quality profile tables) provides more detailed item nonresponse rates for the panel providers by questionnaire section). Overall, item nonresponse averaged 1.1% per item in the combined datafile, or in the panel provider datafiles for Panel Provider 1 and Panel Provider 2 (Table 7, TOTAL row).

For both panel providers, the HPV self-testing (HPV; 3.0% for Panel Provider 1, 3.2% for Panel Provider 2) section had the highest item nonresponse rates. In addition, the race/ethnicity (DEM) section produced an item nonresponse rate of 2.4% for Panel Provider 2, and the healthcare access and utilization (ACC) section produced an item nonresponse rate of 1.8% for Panel Provider 1. All other sections produced item nonresponse rates of 1.6% or less for both panel providers. For the combined dataset, only one question had an item nonresponse rate over 10%: DEM_AIAN (American Indian and Alaska Natives (AIAN) tribe or group). When Don't Know is counted as nonresponse, the number of questions with item nonresponse over 10% increases to 4: DEM_AIAN (AIAN tribe or group), DEM_NHPI (Native Hawaiian/Pacific Islander), HPV_SWABEV (Ever had an HPV test), and SSS_RELSTR (Have close friends or relatives who have had a stroke).

The primary concern with high item nonresponse is the risk of nonresponse error, which leads to inaccurate survey estimates (Yan, 2021). Item nonresponse also increases the variance of a point estimate since the observed sample size is smaller than initially planned. For items with moderate to high item nonresponse (e.g., rates greater than 5%), data users may want to compare item nonrespondents to those who responded using other, more complete, sociodemographic and health variables on the file. If differences exist, the point estimate for the item under investigation may be biased. Data users may want to consider imputing the missing values or at least reporting the potential for bias in the estimate derived from the variable.

Summary

- Both panel providers exceeded their completion targets for RSS-6: Panel Provider 1 (target=4,000, completes=4,884) and Panel Provider 2 (target=3,000, completes=3,039). As a result, the final combined sample (n=7,923) exceeded the targeted number of completed interviews by 923 respondents.
- Panel Provider 2 had a higher overall completion rate than Panel Provider 1. However, similar patterns of completion rates were observed for both providers by select demographic characteristics such as age, race and Hispanic origin, and educational attainment.
- Survey completion time was largely consistent between the two panels, overall and by questionnaire section.
- Survey breakoff rates were low for both providers, albeit higher for Panel Provider 2. The questionnaire section producing the largest percentage of breakoffs was the introductory portion of the survey up through the first question on self-reported health status (HIS) for Panel Provider 2, and the stroke signs and symptoms (SSS) section for Panel Provider 1. The produce prescription programs (PPP) section also produced a large percentage of breakoffs for both panel providers, while the chronic conditions (CHR) and healthcare access and utilization (ACC) sections produced a large percentage of breakoffs for Panel Provider 1, and the HPV self-testing (HPV) section produced a large percentage of breakoffs for Panel Provider 2.
- Item nonresponse rates were low for both panel providers, with over 50% of items having an item nonresponse rate of less than 1%, and over 90% of items having an item nonresponse rate of less than 5%. Only one item in the combined dataset had a double-digit item nonresponse rate. As noted previously, data users may want to investigate this item further for potential nonresponse error.

Question Evaluation

For RSS-6, cognitive interviews were conducted concurrent with survey fielding. Because of this, cognitive interviews should be understood as an examination of the RSS-6 items' construct validities, or how well a question captures the intended measurement, rather than as a method to evaluate question wording. The cognitive interviewing report, including a question-by-question analysis, will be available in Summer of 2025 on Q-Bank and the RSS Data Files and Documentation webpage. Data users should consult this report to understand what information the survey

questions captured and to frame their own analysis of the RSS-6 data. Information on cognitive interviewing is available.

Data Processing

Removed Interviews

Both panel providers applied standardized data cleaning procedures to the set of completed interviews to remove low-quality responses. Speeders and respondents with high refusal rates were removed. Speeders are defined as those who completed the survey in or less than one-quarter of the median duration and respondents with high refusal rates are those who skipped or refused to respond to more than 50% of the eligible questions. Table 8 (Quality profile tables) reports the total speeders and respondents with high refusal rates as well as the percent of interviews removed by panel provider (1.7% overall; 2.2% for Panel Provider 1; 0.8% for Panel Provider 2).

Harmonization

Data harmonization was performed to align the variables provided by the two panel providers. Harmonization includes aligning the variable labels and corresponding code for responses across the two panel providers as well as aligning the variable types. Discrepancies between variables submitted by the two panel providers were resolved during harmonization. One discrepancy that occurred in RSS-6 was related to the urban and rural coding. In previous rounds, the NCHS coding scheme for assigning urban and rural was applied to the provided Federal Information Processing Standards (FIPS) codes from the panel providers to determine metropolitan status. However, due to a change in the FIPS codes for Panel Provider 2, the NCHS urban-rural coding scheme was unable to be applied for certain records. In those cases, the provided metropolitan status information from the panel provider was used to logically impute metropolitan status.

Imputation

Variables used for weighting adjustments were imputed prior to weighting in two stages. First, the panel providers imputed variables needed for their own weighting procedures. Panel Provider 1 imputed missing panel data first logically, if household or other information was available, and then used hot deck imputation. Panel Provider 2 used hot deck imputation for imputing missing values in panel data. Second, after the data were delivered to NCHS, remaining panel and non-panel variables required for weight calibration to the National Health Interview Survey (NHIS) were imputed for

respondents using conditional mean imputation. The weighting procedures to calibrate each panel provider's weights to NHIS totals on the selected variables are described in the Survey Description.

Table 9 (Quality profile tables) reports the percent of missing values imputed in the two stages. While imputed values for the variables from the second stage imputation are not reflected on the data file, values imputed by the panel providers in the first stage appear on the data file. The corresponding imputation flags can be used to identify imputed values. Data users should consider the potential underlying measurement error of these variables when using them in analyses.

The imputed variables were used only for weighting to the NHIS. No other variables were imputed in the RSS-6 data.

Summary

- Data cleaning procedures were applied to remove low-quality responses. Overall, 1.7% of RSS-6 records were removed due to speeders or respondents with high refusal rates.
- Data from the two panel providers were harmonized prior to release. A change in the FIPS code for one panel provider resulted in a different approach for determining metropolitan status. In future rounds of RSS, both providers will use the 2023 NCHS Urban–Rural classification scheme for counties.
- Variables were imputed by the panel providers for their internal weighting procedures and in post-processing for weighting to the NHIS. The percent of values imputed ranged from 0.0% to 4.8%. Imputation flags can be used to identify imputed values in the data file.

Weighting

At the conclusion of data collection, each panel provider developed final study weights that included calibration to select population control totals. Note that control totals varied somewhat by panel provider. Panel Provider 1, for example, calibrated to age, sex, race and Hispanic origin, educational attainment, Census division, income, and language other than English spoken at home. Panel Provider 2 calibrated to age, sex, race and Hispanic origin, education, household income, language proficiency, Census region, and metropolitan statistical area (MSA) status. Both providers calibrated most estimates to control totals from the March 2024 supplement of the Current Population Survey (CPS). Provider 1 calibrated the language other than English spoken at home to control totals from 2019-2023 American Community Survey (ACS) 5-year

Public Use Microdata Sample. Provider 2 obtained control totals for language proficiency from the 2023 ACS.

Next, each of the RSS-6 panel provider weights were separately calibrated to control totals based on the 2024 Quarter 3 NHIS Early Release (ER) Datafile for adults and then combined. In total, 13 variables producing 32 control totals were included in this weight calibration step (see Table 10). In addition to standard sociodemographic measures (age, sex, race and Hispanic origin, educational attainment, marital status, employment status, poverty status, and urbanization level), questions on ever diagnosed with high cholesterol, difficulty participating in social activities, doctor visit in past 12 months, urgent care visit in past 12 months, and not receiving care due to cost in past 12 months were added to the RSS-6 questionnaire specifically for calibration to NHIS control totals. The larger literature on coverage and nonresponse error associated with probability-based panels, as well as a special working group of the NCHS Board of Scientific Counselors, suggested adding non-demographic questions (Peytchev, 2022). For example, prior research with the NCHS Research and Development Survey (RANDS), conducted with NORC's AmeriSpeak Panel, has shown the utility of adding health questions to RANDS questionnaires for calibrating RANDS weights to NHIS control totals, thereby reducing nonresponse and coverage error in RANDS health-related estimates (Irimata et al., 2023).

The complete set of calibration variables is available in the codebook. A complete description of the weighting methodology for RSS-6 is available.

Panel Composition Prior to Calibration Weighting

Table 10 (Quality profile tables) presents 2024 Quarter 3 NHIS ER estimates (32 estimates based on 13 calibration variables) that served as population control totals for calibration of RSS-6 panel provider weights. Also presented are panel provider estimates for the same calibration variables, but *prior* to calibration to NHIS control totals.

For most estimates presented in Table 10, differences between each panel provider and the NHIS were 3 percentage points or less. This can be attributed, in part, to each panel provider using a similar mix of calibration variables to the NHIS (e.g., age, sex, race and Hispanic origin, educational attainment, region, and urbanization level) in development of their final study weights. Minor differences observed between the panel provider and NHIS estimates for these variables are likely due to differences in the source and time period used for obtaining the control totals. For example, the NHIS used U.S. Census Bureau population projections and 2022 ACS estimates for control totals for calibration of 2024 Quarter 3 NHIS ER weights, while, as noted above, the

panel providers primarily used CPS totals from the 2024 March CPS Supplements in development of their final RSS-6 study weights.

Differences greater than 3 percentage points were observed for estimates of ever diagnosed with high cholesterol, doctor visit in past 12 months, urgent care visit in past 12 months, and not receiving care due to cost in past 12 months for both panel providers. A greater percentage of RSS-6 adults reported visiting urgent care in past 12 months (Panel Provider 1=34.5%; Panel Provider 2=30.9%), not receiving care due to cost in past 12 months (Panel Provider 1=14.3%; Panel Provider 2=11.9%), and ever being diagnosed with high cholesterol (Panel Provider 1=37.3%; Panel Provider 2=34.4%) compared with NHIS adults (26.8%, 7.5% and 29.4%, respectively). A lower percentage of RSS-6 adults reported visiting a doctor in past 12 months (Panel Provider 1=77.9%; Panel Provider 2=79.6%) compared with NHIS adults (85.3%). The only remaining differences greater than 3 percentage points were panel provider-specific. Relative to the NHIS, adults with household incomes of 200% of the federal poverty level (FPL) or above are over-represented in Panel 2 compared to the NHIS (76.4% versus 73.2%).

When comparing panel provider estimates to each other, differences greater than 3 percentage points were observed for urgent care visit in past 12 months. Compared with Panel Provider 2 adults, a greater percentage of Panel Provider 1 adults reported visiting urgent care in past 12 months (34.5% vs. 30.9%, $p<0.01$).

Post Calibration Weighting Evaluations

Table 11 (Quality profile tables) reports the population control totals from the NHIS and the estimates and standard errors of the calibration variables after calibration weighting. Post calibration, all calibration variable estimates aligned with NHIS control totals for both panel provider weights.

Table 12 (Quality profile tables) reports selected descriptive statistics for the calibration adjustment factors for both panel providers. The adjustment factors for Panel Provider 2 were less variable, ranging from 0.213 to 2.073, compared with 0.129 to 3.094 for Panel Provider 1. A standard deviation of 0.430 was observed for Panel Provider 1 weights post-calibration, while the corresponding figure for Panel Provider 2 weights was 0.301. While larger adjustment factors were necessary for Panel Provider 1, adjustment factors were relatively small overall. No capping of adjustment factors or trimming of weights was necessary.

As noted in the RSS-6 Survey Description, the panel provider calibrated weights were combined into a final RSS-6 weight using a compositing factor based on the ratio of effective sample sizes. Table 13 (Quality profile tables,) shows the sample size,

effective sample size, and composite factors (0.487 for Panel Provider 1 and 0.513 for Panel Provider 2) for both panel providers.

Table 14 (Quality profile tables) presents descriptive statistics for the panel provider calibrated weights (P1_CALWT and P2_CALWT) and for the final, combined weight (WEIGHT). Focusing on the final combined weight, weight values ranged from 405 (minimum) to a maximum weight value of 343,649. The coefficient of variation was 80.77, producing a design effect of 1.65.

Impact of Calibration Weighting

While the panel provider final study weights are adjusted to population demographics, the calibration weighting to the NHIS controls for additional factors including ever diagnosed with high cholesterol, difficulty participating in social activities, doctor visit in past 12 months, urgent care visit in past 12 months, and not receiving care due to cost in past 12 months. The impact of the calibration weighting was assessed by measuring the absolute bias of RSS estimates using the panel study weights and the final NHIS-calibrated weights compared with estimates for adults from the 2024 Quarter 3 NHIS ER data for a set of benchmarking variables (see more details in the *Benchmarking* section below). The absolute bias and standardized bias of the benchmarking variables based on the panel study weights and the final calibrated weights are reported by panel provider in Table 15 (Quality profile tables) and the standardized bias is displayed in Figure 1. Standardized bias is computed for percentages as

$$\left|estimate_{panel} - estimate_{NHIS}\right| / \sqrt{estimate_{NHIS} * (100 - estimate_{NHIS})}$$

and for continuous variables as

$$\left|estimate_{panel} - estimate_{NHIS}\right| / \left(SE_{NHIS} * \sqrt{n_{NHIS} / deff_{NHIS}}\right)$$

Of the 63 benchmark variables assessed, 55 had lower standardized and absolute bias using the final calibrated weights compared with the panel study weights for Panel Provider 1 while 39 had lower standardized and absolute bias compared with the panel study weights for Panel Provider 2. The magnitude of impact of the calibration weighting varied by panel provider, with larger decreases in bias seen for Panel Provider 1. While the bias for most benchmark variables decreased after calibration to the NHIS for Panel Provider 1, more than one third of the benchmark variables had an increase in bias as a result of calibration weighting for Panel Provider 2. Eight benchmark variables had an increase in bias compared to the NHIS for Panel Provider 1 while 24 benchmark variables had an increase in bias for Panel Provider 2. Whereas the measures with increased bias were scattered across domains for Panel Provider 1, for Panel Provider

2 most of the measures were in the health behaviors domain (8 measures), the healthcare utilization domain (7 measures), and the chronic conditions domain (6 measures).

Summary

- Pre-calibration differences between panel provider estimates and NHIS estimates greater than 3 percentage points were observed for the following calibration variables for both panel providers: ever diagnosed with high cholesterol, doctor visit in past 12 months, urgent care visit in past 12 months, and not receiving care due to cost in past 12 months for both panel providers. Differences greater than 3 percentage points were also observed for estimates of poverty status 200% FPL or above (Panel Provider 2).
- Post calibration, all calibration variable estimates aligned with NHIS control totals for both panel provider weights.
- Adjustment factors were small for both panel providers, maxing out at 3.094 for Panel Provider 1. As a result, there was no need to cap adjustment factors or trim the weights.
- Overall, calibration weighting resulted in lower bias for most of the benchmark variables compared to the NHIS for Panel Provider 1 (55 variables) and for more than half of the benchmark variables for Panel Provider 2 (39 variables). Benchmark variables that had an increase in bias after calibration weighting were from a range of health domains, with measures scattered across domains for Panel Provider 1, and with most of the measures in the health behaviors domain, the healthcare utilization domain, and the chronic conditions domain for Panel Provider 2. The calibration weighting procedure is evaluated in each round of RSS to improve the difference between the RSS and benchmarking estimates.
- The impact of the calibration weighting varied by panel provider, with larger decreases in bias seen for Panel Provider 1.

Benchmarking

On each round of RSS, a set of questions is included for the purpose of benchmarking to assess the bias of RSS estimates compared to other data sources. In RSS-6, questions from the 2024 NHIS measuring chronic conditions, food insecurity, health behaviors, health status, healthcare access, and healthcare utilization were included for benchmarking. The complete set of benchmarking questions is available in the codebook.

RSS benchmark variables measuring 63 health outcomes were compared to the 2024 Quarter 3 NHIS to evaluate the bias of estimates of health variables and domains in the RSS. The absolute and standardized bias was calculated for each benchmark variable and is reported in Table 16 (Quality profile tables). The standardized biases of the benchmark variables are displayed in Figure 2.

The absolute bias ranged from 0.04 percentage points (current e-cigarette smoking (yes, no)) to 9.95 percentage points (visited a retail health clinic in the past 12 months; and zero visits to retail health clinic in the past 12 months) and varied by topic. The standardized bias ranged from nearly 0 to 0.28 for the 63 health measures evaluated, with 41 measures having low bias (standardized bias less than 0.10), 22 measures having medium bias (standardized bias ranging from 0.10 to 0.30), and no measures having high bias (standardized bias ranging from 0.30 to 0.50) (Irimata et al., 2023).

To compare the accuracy of RSS by health domain, the average standardized bias of the benchmark variables was calculated for all six health domains: Chronic Health Conditions; Food Insecurity; Health Behaviors; Health Status; Healthcare Access; and Healthcare Utilization. Table 17 (Quality profile tables) reports the average absolute bias and average standardized bias by health domain. Average standardized bias was calculated as the mean of the standardized biases of the benchmark variables in each health domain. Figure 3 displays the average standardized bias by health domain. The average standardized bias ranged from 0.03 (Health Behaviors) to 0.16 (Food Insecurity). Three health domains had standardized biases less than 0.10 (low bias; Chronic Health Conditions, Health Behaviors, and Healthcare Access), while Healthcare Utilization, Health Status and Food Insecurity were categorized as having medium bias, on average.

Summary

- The absolute bias of the selected benchmark variables compared to the NHIS ranged from 0.04 to 9.95 with most variables reporting an absolute bias of less than 3 percentage points.
- Among the 63 health measures evaluated, 41 measures had low standardized bias, 22 measures had medium standardized bias, and no measures had high standardized bias.
- The average standardized bias of estimates from RSS-6 compared to the NHIS varied by health domain. On average, three health domains had low bias (Chronic Health Conditions, Health Behaviors, and Healthcare Access) and three health

domains had medium bias (Food Insecurity, Health Status, and Healthcare Utilization).

- Health estimates from the RSS differ in quality from traditional NCHS household surveys used to make official statistics and should be interpreted within the quality evaluation presented in this report. While most health outcomes were similar to the NHIS, the following domains had notable differences compared to the NHIS: Food Insecurity and Health Status.

References

The American Association for Public Opinion Research (AAPOR). (2023). Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys (10th edition). AAPOR.

Irimata KE, He Y, Parsons VL, Shin H-C, Zhang G. Calibration weighting methods for the National Center for Health Statistics Research and Development Survey. National Center for Health Statistics. Vital Health Stat 2(199). 2023. https://dx.doi.org/10.15620/cdc:123463

Peytchev A. Assessment of the use of panel survey data. Presentation given at the Meeting of the National Center for Health Statistics Board of Scientific Counselors, Hyattsville, MD, May 26. 2022.

Yan T. Consequences of asking sensitive questions in surveys. Annu. Rev. Stat. App., 8: 109-127. 2021.

Figure 1. Standardized bias of panel study and final calibrated weights for benchmarking variables by panel provider compared to the 2024 Quarter 3 National Health Interview Survey: Rapid Surveys System Round 6

Figure 2. Standardized bias of benchmarking variables compared to the 2024 Quarter 3 National Health Interview Survey: Rapid Surveys System Round 6

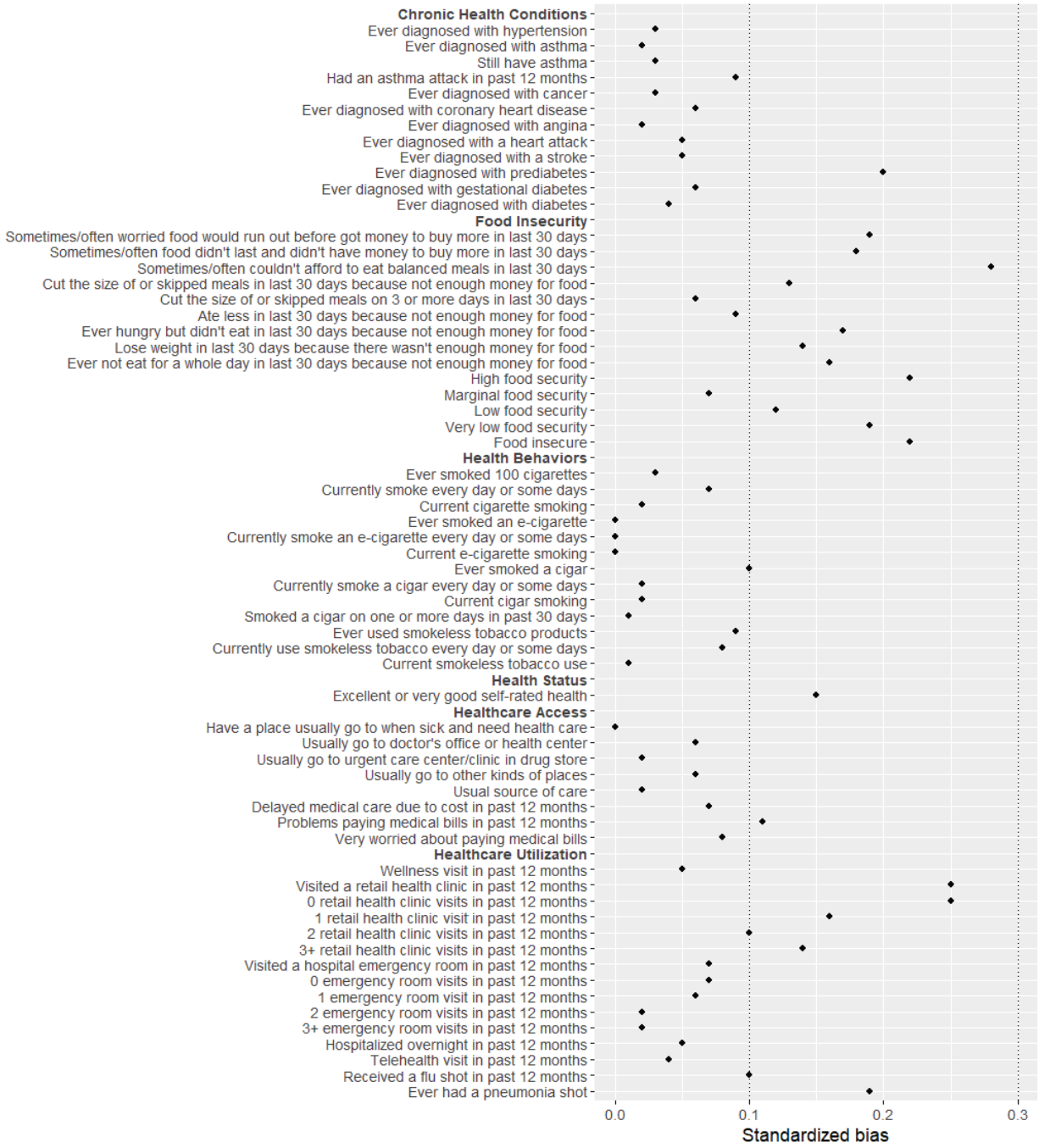
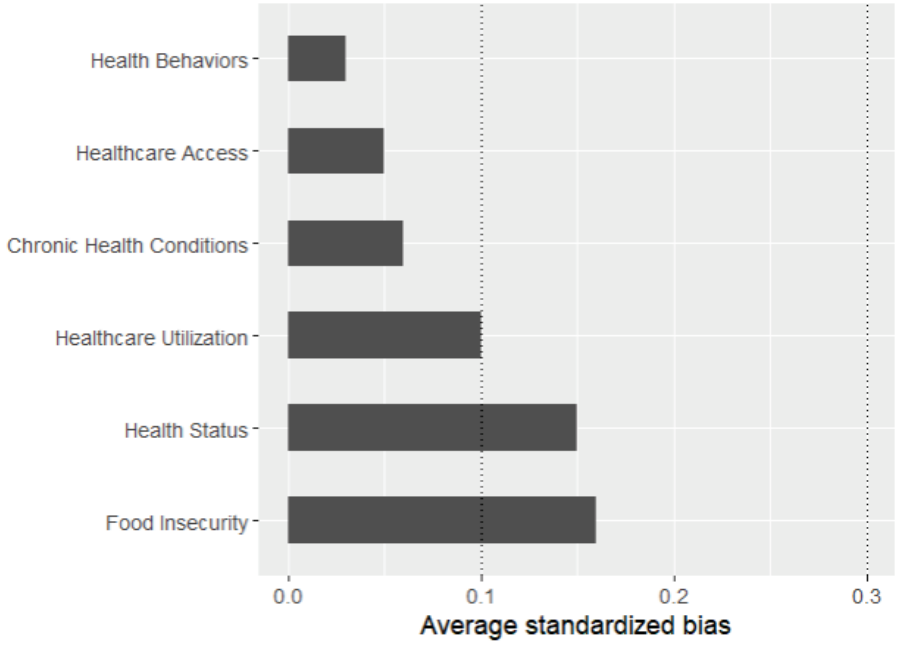


Figure 3. Average standardized bias by health domain compared to the 2024 Quarter 3 National Health Interview Survey: Rapid Surveys System Round 6



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