



NATIONAL CENTER FOR HEALTH STATISTICS

Quality Profile Appendix

Round 4: Data collected April-May 2024



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Table of contents

Introduction	3
Completion Rate Comparison	4
Calibration Variables Comparison	5
Benchmark Variable Comparison	13
Summary.....	17
Suggested citation.....	18

Tables

Table A1. Sample size of selected panelists and respondents and unweighted completion rate by active/inactive status: Rapid Surveys System Rounds 1-3	4
Table A2-1. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 1	6
Table A2-2. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 2.....	9
Table A2-3. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 3.....	11
Table A3-1. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 1	14
Table A3-2. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 2	15
Table A3-3. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 3	16

Introduction

The Rapid Surveys System (RSS) Round 4 was conducted with revised inclusion criteria, with only active panelists included in the samples for Panel Providers 1 and 2. In RSS Rounds 1-3, Panel Provider 1 included active and inactive panelists in their sample in an effort to meet the target number of completes for each round. Panelists were considered active if they participated in at least one survey in the past 6 months. Panel Provider 1 does not remove inactive panelists from their panel unless requested (temporarily or permanently). This contrasts with Panel Provider 2 who is more proactive in removing inactive panelists. Panel Provider 2's samples for Rounds 1-3 only included currently active panelists.

Panel Provider 1 provided a flag variable to identify active and inactive panelists. This flag enabled assessments of the impact of including inactive panelists in their Rounds 1-3 samples, including:

- comparisons of completion rates for active and inactive panelists;
- comparisons of sociodemographic distributions (using weight calibration variables), prior to calibration to National Health Interview Survey (NHIS) control totals, for Panel Provider 1's total (inactive and active panelists) and active-only samples compared to the NHIS; and
- comparisons of bias for benchmarking variables, after calibration to the NHIS, for Panel Provider 1's total and active-only samples compared to NHIS estimates.

Analyses were initially conducted on fully processed RSS-1 data so that decisions could be made before the RSS-4 sample design was finalized (March 2024). Based on the RSS-1 evaluation, the decision starting with RSS-4 was to limit Panel Provider 1 samples to panelists who had participated in at least one survey in the past 12 months. The Round 1 evaluation revealed that active and inactive panelists did not significantly differ by key sociodemographic features, as defined by weight calibration variables, and that estimates of benchmark variables changed little or not at all when based on active only panelists compared to the total sample (active and inactive panelists). In addition, inactive panelists comprised a very small percentage of the respondent pool (2.9%, n=85) and therefore did not greatly contribute to meeting the target number of completes. Even after inclusion of inactive panelists who participated in Round 1, Panel Provider 1 fell short of target completes (final completes=2,898, target completes=3,000).

The benefit of limiting Panel Provider 1 sample draws to active-only panelists for Round 4 and future rounds is that it brings the samples for the two panel providers into greater alignment. For example, Panel Provider 1 drew a sample of 11,568 panelists for

Round 1, of which 6,824 (59.0%) were considered inactive (had not participated in a survey in the past 6 months). The very low survey completion rate among inactive panelists (1.3%) drove the survey completion rate for Panel Provider 1's total sample down to 25.1%. Had the sample been limited to the 4,744 active panelists, the survey completion rate would have been 59.3%, which aligns more closely with the Round 1 survey completion rate for Panel Provider 2 (69.8%).

In the remaining sections of the Appendix, analyses conducted with Panel Provider 1's Round 1 data are presented. As a check on the decision to stop including inactive panelists starting with RSS-4, the Round 1 analyses are replicated with data from Rounds 2 and 3. The results for all three rounds are presented.

Completion Rate Comparison

The sample sizes and completion rates of active and inactive panelists were compared across RSS-1, RSS-2, and RSS-3.

Table A1. Sample size of selected panelists and respondents and unweighted completion rate by active/inactive status: Rapid Surveys System Rounds 1-3

	Active	Inactive	Total
Round 1			
Sampled	4,744	6,824	11,568
Respondents	2,813	85	2,898
Unweighted Completion Rate	59.3	1.3	25.1
Round 2			
Sampled	4,130	8,712	12,842
Respondents	2,606	243	2,849
Unweighted Completion Rate	63.1	2.8	22.2
Round 3			
Sampled	6,672	8,650	15,322
Respondents	4,161	44	4,205
Unweighted Completion Rate	62.4	0.5	27.4

As seen in Table A1, the number of respondents from the inactive group was fairly low in each round with 85 respondents in RSS-1, 243 respondents in RSS-2, and 44 respondents in RSS-3. The unweighted completion rates for this group in each round were very low (ranging from 0.5% to 2.8%) compared to the unweighted completion rates for the active group (ranging from 59.3% to 63.1%).

The target number of completes for panel provider 1 in RSS-1 and RSS-2 was 3,000 per round. Although including inactive panelists increased the number of completes, the total number of respondents still fell short in these two rounds.

Calibration Variables Comparison

Table A2-1 presents calibration variable estimates based on NHIS 2023 quarter 1 Early Release data for adults and Panel Provider 1 RSS-1 data before calibration to NHIS control totals. Panel Provider 1 estimates are presented for the total sample and the active-only sample. The largest differences between Panel Provider 1 and NHIS estimates are observed for household income, ever diagnosed with high cholesterol, difficulty participating in social activities, and civic engagement. For difficulty participating in social activities and civic engagement, the estimates for Panel Provider 1's active-only panelists are closer to NHIS estimates than Panel Provider 1 estimates based on the total sample. The opposite is observed for household income and ever diagnosed with high cholesterol. However, the differences when comparing the active-only estimates to the total estimates within Panel Provider 1 are negligible (see last column of Table A2-1). The largest differences were around six- to seven-tenths of a percentage point for the age group 65 and older and the race and Hispanic origin group of non-Hispanic white. Given that only 85 inactive panelists participated in RSS-1, their inclusion in the respondent pool has little impact on calibration variable estimates.

Table A2-1. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 1

Calibration Variable	NHIS, 2023 Quarter 1 Early Release (N=7,419)		Panel Provider 1						
	% ¹	SE ²	Total (Active + Inactive) (N=2,898)			Active Only (N=2,813)			Active Only Compared to Total (Active + Inactive)
			% ¹	SE ²	Diff. ³	% ¹	SE ²	Diff. ³	Diff. ⁴
Age group									
18-34	29.2	0.67	29.0	1.02	0.2	28.6	1.01	0.6	0.4
35-49	24.4	0.61	24.4	0.93	0.0	24.3	0.96	0.1	0.1
50-64	24.1	0.48	24.2	0.97	-0.1	24.2	0.97	-0.1	0.0
65 and older	22.4	0.47	22.4	1.01	0.0	23.0	1.06	-0.6	-0.6
Sex									
Male	48.8	0.78	48.8	1.37	0.0	48.6	1.39	0.2	0.2
Female	51.2	0.78	51.2	1.37	0.0	51.4	1.39	-0.2	-0.2
Race and Hispanic origin ⁵									
Hispanic	17.4	0.72	17.2	1.31	0.2	17.1	1.30	0.3	0.1
Non-Hispanic white	61.9	1.01	61.3	1.62	0.6	62.0	1.60	-0.1	-0.7
Non-Hispanic black	12.6	0.72	12.1	0.84	0.5	12.0	0.83	0.6	0.1
Non-Hispanic other	8.1	0.47	9.3	0.75	-1.2	8.9	0.79	-0.8	0.4
Educational attainment									
Less than high school	10.8	0.63	9.0	0.91	1.8	8.8	0.94	2.0	0.2
High school diploma ⁶	27.3	0.67	29.0	1.34	-1.7	29.2	1.35	-1.9	-0.2
Some college or more	61.9	0.96	62.0	1.42	-0.1	62.0	1.46	-0.1	0.0
Household income ⁷									
Less than \$50,000	32.2	0.84	37.0	1.16	-4.8	37.3	1.16	-5.1	-0.3
\$50,000 to less than \$100,000	29.3	0.75	33.2	1.34	-3.9	33.2	1.32	-3.9	0.0
\$100,000 or more	38.6	0.95	29.7	1.29	8.9	29.5	1.32	9.1	0.2
Housing Tenure									

Own or buying	69.3	0.82	71.5	1.02	-2.2	71.9	0.99	-2.6	-0.4
Rent or some other arrangement	30.7	0.82	28.5	1.02	2.2	28.1	0.99	2.6	0.4
Marital Status									
Married	51.3	0.72	51.3	1.16	0.0	51.6	1.15	-0.3	-0.3
Not married	48.7	0.72	48.7	1.16	0.0	48.4	1.15	0.3	0.3
Ever diagnosed with high cholesterol									
Yes	28.7	0.59	37.9	1.20	-9.2	37.9	1.18	-9.2	0.0
No	71.3	0.59	62.1	1.20	9.2	62.1	1.18	9.2	0.0
Difficulty participating in social activities ⁸									
No difficulty/some difficulty	95.6	0.27	91.9	0.70	3.7	92.0	0.69	3.6	-0.1
A lot of difficulty/cannot do	4.4	0.27	8.1	0.70	-3.7	8.0	0.69	-3.6	0.1
Civic Engagement									
Yes	63.3	0.89	67.9	1.21	-4.6	67.6	1.26	-4.3	0.3
No	36.7	0.89	32.1	1.21	4.6	32.4	1.26	4.3	-0.3
Region									
Northeast	17.6	0.73	17.4	1.34	0.2	17.5	1.33	0.1	-0.1
Midwest	20.7	0.83	20.6	2.39	0.1	20.5	2.41	0.2	0.1
South	38.1	1.19	38.4	2.03	-0.3	38.5	2.04	-0.4	-0.1
West	23.6	1.36	23.6	2.14	0.0	23.5	2.11	0.1	0.1
Urbanization level									
Metropolitan	86.2	0.80	85.5	0.79	0.7	85.4	0.81	0.8	0.1
Nonmetropolitan	13.8	0.80	14.5	0.79	-0.7	14.6	0.81	-0.8	-0.1

¹ All survey estimates calculated with contractor provided analysis weights. Missing values for the calibration totals and survey estimates were imputed using conditional mean imputation. Percentages may not sum to 100.0 due to rounding.

² Weighted standard error (SE) accounting for sampling design.

³ Diff. = difference; NHIS calibration total - survey estimate.

⁴ Diff. = difference; Total estimate - Active Only estimate.

⁵ Adults categorized as Hispanic may be any race or combination of races. Adults categorized as Black non-Hispanic and White non-Hispanic indicated one race only. Non-Hispanic adults of multiple or other races are combined into the Other and multiple races non-Hispanic category.

⁶ Includes adults who have a GED.

⁷ Panel Provider 1 collects total household income for the prior calendar year. The National Health Interview Survey collects total family income for the prior calendar year.

⁸ Responses are based on a question that asked if the respondent, because of a physical, mental or emotional condition, had difficulty participating in social activities, such as visiting friends, attending clubs and meetings, or going to parties.

A similar pattern of results is observed for RSS-2 (see Table A2-2). Here again, the largest differences between Panel Provider 1 and NHIS calibration variable estimates are for household income, ever diagnosed with high cholesterol, difficulty participating in social activities, and civic engagement. Estimates based on the active-only participants, compared to the total sample, move further away from NHIS estimates for three of the four variables: household income, ever diagnosed with high cholesterol, and civic engagement. Conversely, the estimate of difficulty participating in social activities based on the active only participants is closer to the NHIS benchmark than the estimate based on the total set of participants. Once again, comparison of the two sets of Panel Provider 1 estimates reveals small differences, albeit larger than those observed for RSS-1 due to the larger proportion of inactive panelists comprising the respondent pool in RSS-2 (8.5% in RSS-2 compared to 2.9% in RSS-1). The largest absolute difference was 2.1 percentage points for the age group 65 and older, followed by 2.0 percentage points for the age group 18-34. All other absolute differences were 1.4 percentage points or less.

Table A2-2. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 2

Calibration Variable	NHIS, 2023 Quarter 2 Early Release (N=7,310)		Panel Provider 1						
	% ¹	SE ²	Total (Active + Inactive) (N=2,849)			Active Only (N=2,606)			Active Only Compared to Total (Active + Inactive)
			% ¹	SE ²	Diff. ³	% ¹	SE ²	Diff. ³	Diff. ⁴
Age group									
18-34	29.1	0.80	29.2	1.26	-0.1	27.2	1.23	1.9	2.0
35-49	24.4	0.62	24.4	1.31	0.0	23.2	1.26	1.2	1.2
50-64	24.0	0.59	24.0	1.13	0.0	25.0	1.17	-1.0	-1.0
65 and older	22.5	0.60	22.5	0.82	0.0	24.6	0.87	-2.1	-2.1
Sex									
Male	48.8	0.83	49.0	1.41	-0.2	48.9	1.43	-0.1	0.1
Female	51.2	0.83	51.0	1.41	0.2	51.1	1.43	0.1	-0.1
Race and Hispanic origin ⁵									
Hispanic	17.5	0.82	17.2	1.23	0.3	16.0	1.09	1.5	1.2
Non-Hispanic white	62.0	0.97	61.7	1.66	0.3	62.4	1.75	-0.4	-0.7
Non-Hispanic black	12.6	0.71	12.1	1.05	0.5	12.4	1.14	0.2	-0.3
Non-Hispanic other	7.9	0.47	9.1	0.76	-1.2	9.2	0.80	-1.3	-0.1
Educational attainment									
Less than high school	10.8	0.49	9.4	0.82	1.4	8.8	0.90	2.0	0.6
High school diploma ⁶	27.3	0.72	28.7	1.32	-1.4	28.3	1.31	-1.0	0.4
Some college or more	62.0	0.73	61.9	1.17	0.1	62.9	1.17	-0.9	-1.0
Household income ⁷									
Less than \$50,000	31.6	0.87	37.9	1.23	-6.3	37.9	1.34	-6.3	0.0
\$50,000 to less than \$100,000	29.4	0.70	33.7	1.30	-4.3	33.9	1.43	-4.5	-0.2
\$100,000 or more	39.0	0.89	28.4	1.24	10.6	28.3	1.36	10.7	0.1
Housing Tenure									

Own or buying	69.3	0.65	68.6	1.31	0.7	69.7	1.33	-0.4	-1.1
Rent or some other arrangement	30.7	0.65	31.4	1.31	-0.7	30.3	1.33	0.4	1.1
Marital Status									
Married	51.8	0.90	48.6	1.22	3.2	49.8	1.23	2.0	-1.2
Not married	48.2	0.90	51.4	1.22	-3.2	50.3	1.23	-2.1	1.1
Ever diagnosed with high cholesterol									
Yes	27.7	0.65	37.1	1.26	-9.4	38.3	1.35	-10.6	-1.2
No	72.3	0.65	62.9	1.26	9.4	61.8	1.35	10.5	1.1
Difficulty participating in social activities ⁸									
No difficulty/some difficulty	95.3	0.31	90.3	0.79	5.0	90.9	0.84	4.4	-0.6
A lot of difficulty/cannot do	4.7	0.31	9.7	0.79	-5.0	9.1	0.84	-4.4	0.6
Civic Engagement									
Yes	62.1	0.79	68.7	1.21	-6.6	70.1	1.18	-8.0	-1.4
No	37.9	0.79	31.3	1.21	6.6	29.9	1.18	8.0	1.4
Region									
Northeast	17.6	0.85	17.3	1.46	0.3	16.9	1.72	0.7	0.4
Midwest	20.7	0.70	20.4	1.84	0.3	20.7	1.97	0.0	-0.3
South	38.1	1.18	38.6	1.93	-0.5	39.0	2.03	-0.9	-0.4
West	23.6	1.08	23.7	1.58	-0.1	23.5	1.76	0.1	0.2
Urbanization level									
Metropolitan	86.2	0.75	85.8	1.00	0.4	85.4	1.04	0.8	0.4
Nonmetropolitan	13.8	0.75	14.2	1.00	-0.4	14.6	1.04	-0.8	-0.4

¹ All survey estimates calculated with contractor provided analysis weights. Missing values for the calibration totals and survey estimates were imputed using conditional mean imputation. Percentages may not sum to 100.0 due to rounding.

² Weighted standard error (SE) accounting for sampling design.

³ Diff. = difference; NHIS calibration total - survey estimate.

⁴ Diff. = difference; Total estimate - Active Only estimate.

⁵ Adults categorized as Hispanic may be any race or combination of races. Adults categorized as Black non-Hispanic and White non-Hispanic indicated one race only. Non-Hispanic adults of multiple or other races are combined into the Other and multiple races non-Hispanic category.

⁶ Includes adults who have a GED.

⁷ Panel Provider 1 collects total household income for the prior calendar year. The National Health Interview Survey collects total family income for the prior calendar year.

⁸ Responses are based on a question that asked if the respondent, because of a physical, mental or emotional condition, had difficulty participating in social activities, such as visiting friends, attending clubs and meetings, or going to parties.

Comparisons for RSS-3 (see Table A2-3) reveal findings similar to those reported for RSS-1. This is primarily due to the very low proportion of inactive panelists in the RSS-3 respondent pool (1.0%). Like rounds 1 and 2, the largest differences between NHIS and Panel Provider 1 estimates were observed for household income, ever diagnosed with high cholesterol, difficulty participating in social activities, and civic engagement. The inclusion or exclusion of inactive panelists for Panel Provider 1 had little to no impact on the estimates for household income groups. For diagnosed with high cholesterol and difficulty participating in social activities, dropping the inactive panelists moved the estimates slightly further away from the NHIS estimate (~0.1 percentage points). However, the exclusion of inactive panelists moved the estimate of civic engagement closer to the NHIS benchmark. As with round 1, differences in estimates when inactive panelists are included or excluded are negligible. The largest absolute difference observed was 0.3 percentage points, with 84% of comparisons producing an absolute difference of 0.1 percentage points or less. Again, the inclusion of the inactive panelists has negligible impacts on the calibration variable estimates.

Table A2-3. Comparison of Panel Provider 1 calibration variable estimates to National Health Interview Survey (NHIS) population control totals prior to calibration of Panel Provider 1 weights to NHIS control totals, for total sample and active only sample: Rapid Surveys System Round 3

Calibration Variable	Panel Provider 1								
	NHIS, 2023 Quarter 3 Early Release (N=7,419)		Total (Active + Inactive) (N=4,205)			Active Only (N=4,161)			Active Only Compared to Total (Active + Inactive)
	% ¹	SE ²	% ¹	SE ²	Diff. ³	% ¹	SE ²	Diff. ³	Diff. ⁴
Age group									
18-34	29.1	0.59	29.2	0.93	-0.1	29.1	0.91	0.0	0.1
35-49	24.4	0.48	24.4	0.94	0.0	24.4	0.93	0.0	0.0
50-64	23.9	0.56	24.0	0.92	-0.1	23.9	0.92	0.0	0.1
65 and older	22.6	0.50	22.4	0.78	0.2	22.6	0.79	0.0	-0.2
Sex									
Male	48.8	0.64	49.0	1.00	-0.2	48.7	1.01	0.1	0.3
Female	51.2	0.64	51.0	1.00	0.2	51.3	1.01	-0.1	-0.3

Race and Hispanic origin ⁵									
Hispanic	17.6	0.82	16.9	1.02	0.7	16.9	1.02	0.7	0.0
Non-Hispanic white	61.8	0.87	61.6	1.42	0.2	61.7	1.41	0.1	-0.1
Non-Hispanic black	12.6	0.54	12.0	0.92	0.6	11.9	0.93	0.7	0.1
Non-Hispanic other	8.0	0.53	9.5	0.59	-1.5	9.5	0.59	-1.5	0.0
Educational attainment									
Less than high school	10.8	0.59	9.4	0.63	1.4	9.4	0.64	1.4	0.0
High school diploma ⁶	27.3	0.68	28.9	0.99	-1.6	28.8	0.98	-1.5	0.1
Some college or more	62.0	0.7	61.8	1.02	0.2	61.8	1.03	0.2	0.0
Household income ⁷									
Less than \$50,000	31.6	0.67	38.4	1.04	-6.8	38.4	1.06	-6.8	0.0
\$50,000 to less than \$100,000	30.5	0.68	31.6	0.95	-1.1	31.7	0.95	-1.2	-0.1
\$100,000 or more	37.8	0.83	30.0	1.11	7.8	29.9	1.12	7.9	0.1
Housing Tenure									
Own or buying	69.3	0.65	69.9	0.91	-0.6	70.0	0.91	-0.7	-0.1
Rent or some other arrangement	30.7	0.65	30.1	0.91	0.6	30.0	0.91	0.7	0.1
Marital Status									
Married	50.3	0.65	50.1	0.96	0.2	50.2	0.96	0.1	-0.1
Not married	49.7	0.65	49.9	0.96	-0.2	49.8	0.96	-0.1	0.1
Ever diagnosed with high cholesterol									
Yes	28.5	0.50	38.4	0.99	-9.9	38.5	1.00	-10.0	-0.1
No	71.5	0.50	61.6	0.99	9.9	61.5	1.00	10.0	0.1
Difficulty participating in social activities ⁸									
No difficulty/some difficulty	95.7	0.28	93.6	0.46	2.1	93.7	0.47	2.0	-0.1
A lot of difficulty/cannot do	4.3	0.28	6.4	0.46	-2.1	6.3	0.47	-2.0	0.1
Civic Engagement									
Yes	60.5	1.01	65.7	0.95	-5.2	65.8	0.97	-5.3	-0.1
No	39.5	1.01	34.4	0.95	5.1	34.2	0.97	5.3	0.2
Region									
Northeast	17.6	0.77	17.4	1.28	0.2	17.5	1.30	0.1	-0.1
Midwest	20.7	0.82	20.5	2.01	0.2	20.4	2.01	0.3	0.1
South	38.1	1.09	38.6	1.85	-0.5	38.6	1.86	-0.5	0.0
West	23.6	1.44	23.6	1.28	0.0	23.6	1.27	0.0	0.0

Urbanization level									
Metropolitan	86.2	0.83	85.5	0.85	0.7	85.5	0.87	0.7	0.0
Nonmetropolitan	13.8	0.83	14.5	0.85	-0.7	14.6	0.87	-0.8	-0.1

¹ All survey estimates calculated with contractor provided analysis weights. Missing values for the calibration totals and survey estimates were imputed using conditional mean imputation. Percentages may not sum to 100.0 due to rounding.

² Weighted standard error (SE) accounting for sampling design.

³ Diff. = difference; NHIS calibration total - survey estimate.

⁴ Diff. = difference; Total estimate - Active Only estimate.

⁵ Adults categorized as Hispanic may be any race or combination of races. Adults categorized as Black non-Hispanic and White non-Hispanic indicated one race only. Non-Hispanic adults of multiple or other races are combined into the Other and multiple races non-Hispanic category.

⁶ Includes adults who have a GED.

⁷ Panel Provider 1 collects total household income for the prior calendar year. The National Health Interview Survey collects total family income for the prior calendar year.

⁸ Responses are based on a question that asked if the respondent, because of a physical, mental or emotional condition, had difficulty participating in social activities, such as visiting friends, attending clubs and meetings, or going to parties.

Benchmark Variable Comparison

Eleven benchmark variables collected across RSS 1-3 were compared between the total sample (active and inactive panelists), which was reported in the RSS 1-3 Quality Profile reports, and the sample of active panelists only. The bias compared to the corresponding National Health Interview Survey estimate was calculated for both samples and compared to evaluate the impact of excluding inactive panelists.

Table A3-1. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 1

Benchmark	NHIS, 2023 Quarter 1 Early Release (N=7,419)		Panel Provider 1							
	%	SE ¹	Total (Active + Inactive) (N=2,898)				Active Only (N=2,813)			
			%	SE ¹	Abs Bias ²	Std Bias ³	%	SE ¹	Abs Bias ²	Std Bias ³
Chronic Health Conditions										
Ever diagnosed with hypertension	33.3	0.62	33.4	1.22	0.03	0.00	33.6	1.24	0.25	0.01
Ever diagnosed with asthma	15.2	0.5	17.8	0.95	2.67	0.07	17.6	0.98	2.44	0.07
Ever diagnosed with cancer	10.1	0.33	11.0	0.89	0.93	0.03	11.1	0.89	0.98	0.03
Mental and Self-Rated Health										
Excellent or very good self-rated health	56.1	0.76	47.3	1.32	8.85	0.18	47.2	1.36	8.96	0.18
Health Behaviors										
Ever smoked 100 cigarettes	34.0	0.71	39.9	1.20	5.91	0.12	40.1	1.17	6.10	0.13
Current smoking	11.0	0.45	12.4	0.89	1.42	0.05	12.3	0.92	1.29	0.04
Healthcare Access										
Place usually go to when sick and need health care	89.2	0.48	87.2	0.86	1.93	0.06	87.3	0.89	1.92	0.06
What kind of place: doctor's office or health center	77.8	0.62	71.0	1.38	6.86	0.17	71.1	1.41	6.70	0.16
What kind of place: urgent care center/clinic in drug store	7.2	0.36	9.9	0.83	2.75	0.11	10.0	0.84	2.78	0.11
What kind of place: all other kinds	3.7	0.27	4.7	0.54	0.96	0.05	4.6	0.55	0.89	0.05
Usual source of care	87.4	0.50	84.5	1.00	2.97	0.09	84.5	1.01	2.90	0.09

¹ SE is standard error.

² Abs bias is absolute bias.

³ Std bias is standardized bias. The standardized bias is calculated as |panel provider estimate - NHIS estimate|/sqrt(NHIS estimate *(100 - NHIS estimate)) for percentages and as |panel provider estimate - NHIS estimate|/(NHIS standard error * sqrt(NHIS sample size/NHIS design effect)) for continuous variables.

In RSS-1, the pattern of low (standardized bias less than 0.10), medium (standardized bias ranging from 0.10 to 0.30), and high (standardized bias ranging from 0.30 to 0.50) standardized bias among the selected benchmark variables was

consistent for the total (active and inactive) sample and active only sample (Table A3-1). Both samples had seven variables with low standardized bias compared to the NHIS, four variables with medium standardized bias, and no variables with high standardized bias. Similarly, the levels of absolute bias among the selected benchmark variables were fairly consistent between the total and active only samples.

Table A3-2. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 2

Benchmark	Panel Provider 1									
	NHIS, 2023 Quarter 2 Early Release (N=7,310)		Total (Active + Inactive) (N=2,849)				Active Only (N=2,606)			
	%	SE ¹	%	SE ¹	Abs Bias ²	Std Bias ³	%	SE ¹	Abs Bias ²	Std Bias ³
Chronic Health Conditions										
Ever diagnosed with hypertension	32.1	0.61	34.6	1.36	2.53	0.05	35.5	1.45	3.41	0.07
Ever diagnosed with asthma	15.5	0.49	18.3	1.13	2.82	0.08	18.7	1.21	3.21	0.09
Ever diagnosed with cancer	9.8	0.44	13.4	0.86	3.61	0.12	13.8	0.87	3.96	0.13
Mental and Self-Rated Health										
Excellent or very good self-rated health	54.7	0.66	46.5	1.48	8.14	0.16	46.4	1.58	8.23	0.17
Health Behaviors										
Ever smoked 100 cigarettes	33.4	0.85	35.2	1.29	1.76	0.04	34.8	1.44	1.37	0.03
Current smoking	11.2	0.48	12.7	1.04	1.50	0.05	12.4	1.16	1.18	0.04
Healthcare Access										
Place usually go to when sick and need health care	89.5	0.43	91.6	0.99	2.09	0.07	92.1	1.01	2.60	0.08
What kind of place: doctor's office or health center	77.7	0.66	77.6	1.43	0.08	0.00	79.1	1.31	1.41	0.03
What kind of place: urgent care center/clinic in drug store	8.0	0.46	12.8	1.10	4.77	0.18	11.6	0.95	3.57	0.13
What kind of place: all other kinds	3.6	0.26	8.0	0.86	4.34	0.23	7.8	0.88	4.20	0.22
Usual source of care	87.9	0.46	88.0	1.19	0.13	0.00	88.7	1.19	0.81	0.02

¹ SE is standard error.

² Abs bias is absolute bias.

³ Std bias is standardized bias. The standardized bias is calculated as $|\text{panel provider estimate} - \text{NHIS estimate}| / \sqrt{(\text{NHIS estimate} * (100 - \text{NHIS estimate}))}$ for percentages and as $|\text{panel provider estimate} - \text{NHIS estimate}| / (\text{NHIS standard error} * \sqrt{(\text{NHIS sample size} / \text{NHIS design effect})})$ for continuous variables.

Similarly, in RSS-2, the total and active only samples had the same pattern of standardized bias levels for the selected benchmark variables (Table A3-2) and the magnitudes of absolute bias were similar. Seven of the benchmark variables had low standardized bias relative to the NHIS and four of the benchmark variables had medium standardized bias. This is the same number of variables with low and medium standardized bias as RSS-1, although the patterns differed among variables. For example, ever diagnosed with cancer had a low standardized bias among the total and actively only samples in RSS-1 while ever diagnosed with cancer had a medium standardized bias among both samples in RSS-2. Other variables with a shift in bias level between the two rounds included ever smoked 100 cigarettes, what kind of place: doctor's office or health center, and what kind of place: all other kinds, although the bias level remained consistent between the total and active only samples.

Table A3-3. Estimate, standard error, and bias for benchmarking variables using final calibrated weights for total versus active only samples compared to National Health Interview Survey (NHIS): Rapid Surveys System Round 3

Benchmark	Panel Provider 1									
	NHIS, 2023 Quarter 3 Early Release (N=7,419)		Total (Active + Inactive) (N=4,205)				Active Only (N=4,161)			
	%	SE ¹	%	SE ¹	Abs Bias ²	Std Bias ³	%	SE ¹	Abs Bias ²	Std Bias ³
Chronic Health Conditions										
Ever diagnosed with hypertension	32.1	0.61	34.9	1.07	2.75	0.06	35.1	1.08	2.95	0.06
Ever diagnosed with asthma	15.2	0.41	19.0	0.85	3.78	0.11	19.1	0.85	3.89	0.11
Ever diagnosed with cancer	9.4	0.35	12.2	0.70	2.73	0.09	12.2	0.71	2.76	0.09
Mental and Self-Rated Health										
Excellent or very good self-rated health	55.2	0.74	45.3	0.98	9.89	0.20	45.1	1.00	10.14	0.20
Health Behaviors										

Ever smoked 100 cigarettes	32.3	0.68	38.0	1.03	5.64	0.12	38.1	1.05	5.80	0.12
Current smoking	10.6	0.42	11.7	0.65	1.05	0.03	11.7	0.66	1.12	0.04
Healthcare Access										
Place usually go to when sick and need health care	90.1	0.40	89.8	0.72	0.30	0.01	89.7	0.72	0.37	0.01
What kind of place: doctor's office or health center	78.3	0.76	72.8	0.88	5.50	0.13	72.7	0.89	5.61	0.14
What kind of place: urgent care center/clinic in drug store	7.4	0.42	10.8	0.76	3.40	0.13	10.9	0.78	3.45	0.13
What kind of place: all other kinds	4	0.33	5.3	0.41	1.33	0.07	5.3	0.41	1.34	0.07
Usual source of care	88.1	0.49	86.9	0.74	1.22	0.04	86.8	0.75	1.30	0.04

¹ SE is standard error.

² Abs bias is absolute bias.

³ Std bias is standardized bias. The standardized bias is calculated as $|\text{panel provider estimate} - \text{NHIS estimate}| / \sqrt{(\text{NHIS estimate} * (100 - \text{NHIS estimate}))}$ for percentages and as $|\text{panel provider estimate} - \text{NHIS estimate}| / (\text{NHIS standard error} * \sqrt{(\text{NHIS sample size} / \text{NHIS design effect})})$ for continuous variables.

RSS-3 also had the same pattern of standardized bias levels among the selected benchmark variables for the total and active only samples (Table A3-3). For this round, six of the benchmark variables had low standardized bias relative to the NHIS and five of the benchmark variables had medium standardized bias. The pattern of standardized bias levels was fairly consistent with the pattern observed in RSS-1, except for the variable ever diagnosed with asthma which had low bias for the total and active only samples in RSS-1 and medium bias for both samples in RSS-3. The magnitude of absolute bias for each benchmark variable was consistent between the two samples.

Summary

- Panel Provider 1 invited inactive panelists to participate in RSS Rounds 1-3. However, the number of respondents from the inactive group were fairly low in each round and the unweighted completion rate among inactive panelists was less than 3% in each round.
- Compared to Panel Provider 1's active-only responders, inclusion of inactive panelists in the final respondent pool tended to move RSS calibration variable estimates closer to NHIS estimates for most calibration variables.
- However, when comparing Panel Provider 1's full responding sample to the active-only sample, differences in calibration variable estimates were small. The largest differences were observed in RSS-2, with the largest absolute difference being 2.1

percentage points for the age group 65 and older. Across all three rounds, 80% of 75 comparisons revealed differences of less than half a percentage point.

- Among the eleven benchmark variables collected in RSS-1, RSS-2, and RSS-3, all the benchmark variables had the same level of standardized bias compared to the NHIS in the total (active + inactive) and active only samples for each of the three rounds.

Suggested citation

Quality Profile Appendix. NCHS Rapid Surveys System. Round 4. November 2024. National Center for Health Statistics. Available from: [https://www.cdc.gov/nchs/data/rss/round4/quality profile appendix.pdf](https://www.cdc.gov/nchs/data/rss/round4/quality%20profile%20appendix.pdf).