Comparison of 2017 to 2018 Changes in Insurance Coverage Across Surveys

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With support from the Robert Wood Johnson Foundation (RWJF), the Urban Institute is undertaking a comprehensive monitoring and tracking project to examine the implementation and effects of health reform. The project began in May 2011 and will take place over several years. The Urban Institute will document changes to the implementation of national health reform to help states, researchers and policymakers learn from the process as it unfolds. Reports that have been prepared as part of this ongoing project can be found at www.rwjf.org and www.healthpolicycenter.org.

IN BRIEF

- Despite improvements in the economy between 2017 and 2018, two national surveys (the American Community Survey and Current Population Survey) showed increasing uninsurance among nonelderly Americans, while one survey showed no statistically significant change in the uninsured rate (National Health Interview Survey).
- According to both the American Community Survey and the Current Population Survey, Medicaid coverage fell between 2017 and 2018, perhaps reflecting increasing incomes.
- The three surveys found mixed results for private insurance coverage. The American Community Survey showed increases in employer coverage between 2017 and 2018 and declines in private nongroup coverage. In contrast, the Current Population Survey and the National Health Interview Survey showed no change in employer-sponsored coverage or private nongroup coverage.

INTRODUCTION

This brief compares changes in health coverage between 2017 and 2018 as measured by the American Community Survey (ACS), the Current Population Survey (CPS), and the National Health Interview Survey (NHIS). Estimates of health insurance coverage vary across surveys because of differences in question design, question order, sampling strategy, and sample size. Additionally, surveys request information about health insurance coverage questions from different time frames, such as coverage at the time of the survey or over the past calendar year.

Prior research found increasing uninsurance as measured by the ACS between 2016 and 2017, despite economic improvements. Our analysis of the 2018 ACS found insurance coverage continued declining between 2017 and 2018, though at a slower rate than reported by the U.S. Census Bureau using the CPS. These declines in coverage occurred despite economic improvements such as increasing household incomes, increasing employment, and falling poverty, which we would expect to increase coverage rates. However, health insurance gains from these economic improvements may have been offset to some degree by losses of Medicaid coverage due to increasing incomes and changes in health insurance marketplace policies that may have limited enrollment. Between 2017 and 2018, funding for federal marketplace navigators and outreach programs fell. In addition, the Trump Administration ceased making cost-sharing reduction payments to marketplace insurers in 2018 while the law continued to require those insurers to offer reduced cost-sharing to low-income enrollees, substantially increasing premiums for enrollees ineligible for income-based subsides. Finally, in 2018, the marketplace open enrollment window lasted only six weeks, from November 1 to mid-December, compared to a three-month open enrollment window in prior years.

This brief explores how coverage changes between 2017 and 2018 compare among the ACS, CPS, and NHIS. Comparing across multiple surveys allows for triangulation of the likely “true” change in uninsurance, Medicaid, and private nongroup coverage between 2017 and 2018.
DATA AND METHODS

Data Sources

The ACS is conducted annually by the Census Bureau through the mail with in-person follow-up for non-respondents. The ACS has the largest sample size of any survey collecting health insurance information, sampling approximately 3 million Americans per year, making it particularly strong for state and sub-state estimates of health insurance coverage.

The CPS is a telephone-based and in-person monthly survey conducted by the Census Bureau. Every March, the CPS fields the Annual Social and Economic Supplement, a survey of 75,000 households collecting detailed information on social and economic characteristics including poverty and health insurance coverage. The CPS has significant strengths in income and poverty reporting, but concerns about the long recall period for the CPS may make its estimates of health insurance coverage weaker than other surveys.

The NHIS is an in-person survey of 35,000 households per year containing about 87,500 Americans. It is conducted by the National Center for Health Statistics, a division of the U.S. Centers for Disease Control and Prevention. The NHIS’ strength is its highly-detailed coverage questions, which assess marketplace coverage and high-deductible health plans. However, the NHIS has a smaller sample size than other national surveys, making it more difficult to detect small changes in coverage. Additionally, the public release file of the NHIS does not report state of residence, which means that state-level policies, such as Medicaid expansion, cannot be matched to respondents.

Methods

We obtained all data through the University of Minnesota’s Integrated Public Use Microdata Series, which harmonizes variables across years.14 We focus our analyses on the civilian, noninstitutionalized, nonelderly population from birth to age 64.

For each survey, we counted income by health insurance units (HIUs), which represent household or family units typically eligible to purchase health insurance together. For the ACS and NHIS, the Urban Institute develops HIUs using the family relationship questions. For the CPS, our HIU measure is similar to the Census Bureau’s definition of a subfamily, which may include "a married couple with or without children, or a single parent with one or more own never-married children under 18 years old." We define the units to include members of a subfamily who may be covered under one health insurance policy (e.g., policyholders, spouses, and dependent children younger than 19). We calculated HIU income relative to poverty by dividing the unit’s income (or imputed income in the NHIS) by the appropriate federal poverty level (FPL) for that year.

Because respondents can report multiple types of health insurance coverage on each survey, we assigned respondents to a single coverage type based on the following hierarchy: employer-sponsored insurance (ESI); Medicaid or CHIP; Medicare, Veterans Affairs, or military health care; private nongroup; and uninsured. Respondents who reported only Indian Health Service coverage are considered uninsured. We examined the rate of coverage through Medicaid, ESI, and private nongroup insurance, as well as the uninsurance rate.

We determined Medicaid expansion status as of July 1, 2018, for all surveys to ensure consistency.15 However, the NHIS does not include state identifiers on public use files, so estimates by Medicaid expansion status are not presented here for that data set.

Differences in Coverage Reporting Across Surveys

The three surveys do not ask about health insurance in the same manner, leading to differences in estimates of coverage types and uninsurance. The CPS collects information on health insurance as part of its Annual Social and Economic Supplement each March that includes information on coverage at the time of the survey and during the prior year. Our estimates reflect the share of the nonelderly who were uninsured or had a particular insurance type for the entire calendar year in 2017 and 2018. However, the CPS estimates of full-year coverage closely track estimates of point-in-time coverage from other surveys, suggesting that respondents may be reporting their most common coverage status instead of all coverage over the past year due to the long recall period.

In contrast, the ACS insurance questions are point-in-time and the survey is mailed throughout the year, so our estimates reflect the average level of point-in-time coverage for 2017 and 2018. The ACS health insurance questions also do not specify state-specific names for Medicaid and CHIP programs, leading to overreporting of private nongroup coverage and underreporting of Medicaid on the ACS.16,17,18 Our estimates of coverage type from the ACS have been adjusted to correct for known inaccuracies in survey-based estimates of health insurance coverage.19

The NHIS asks detailed questions of all family members about health insurance coverage at the time of the survey on the Family Core questionnaire, and the questionnaire also assesses full-year uninsurance. Due to the extra level of detail in the questions on current insurance, we use the point-in-time estimates from the NHIS.
RESULTS

Changes in uninsurance between 2017 and 2018

As shown in Table 1, the ACS and CPS found statistically significant increases in the uninsured rate between 2017 and 2018 for the nonelderly (birth to age 64) and for nonelderly adults (aged 19 to 64). The CPS also found statistically significant increases in the uninsured rate for children (birth to age 18). However, the magnitude of the increases in uninsurance rates as measured by the CPS are larger than the ACS. The NHIS found increases in uninsurance among the nonelderly, children, and adults, but these changes were not statistically significant. The NHIS has a far smaller sample size than the ACS and CPS. Therefore, the NHIS point estimates of changes in uninsurance rates (which are essentially identical to those of the ACS) have larger standard errors than the ACS point estimates and are correspondingly less likely to be identified as statistically significant.

Table 1: Changes in the Uninsured Rate by Age Group and Survey, 2017-2018

<table>
<thead>
<tr>
<th>Age Group</th>
<th>ACS (Time of Survey)</th>
<th>CPS (Uninsured all year)</th>
<th>NHIS (Time of Survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonelderly (0-64)</td>
<td>10.2%</td>
<td>10.4%</td>
<td>0.2**</td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>4.7%</td>
<td>4.8%</td>
<td>0.1</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>12.4%</td>
<td>12.6%</td>
<td>0.2**</td>
</tr>
</tbody>
</table>

* Change is statistically significant at the 0.05/0.01 level.

By income, the ACS and CPS showed increases in the uninsured rate for those with HIU incomes at or above 138 percent of the Federal Poverty Level (FPL), which is roughly the cutoff for Medicaid eligibility in Medicaid expansion states. The increases were larger in the CPS for those with incomes between 138 and 399 percent of the FPL (0.8 percentage points) and individuals with incomes at or above 400 percent of the FPL (1.0 percentage points) than in the ACS (0.6 and 0.3 percentage points, respectively) (Table 2). The NHIS found no significant changes in the uninsured rate for any income group. However, the NHIS point estimates (although statistically insignificant) were most similar to those of the CPS for the lowest and highest income groups.

Table 2: Changes in the Uninsured Rate by Income and Survey for the Nonelderly (0-64), 2017-2018

<table>
<thead>
<tr>
<th>Income Group</th>
<th>ACS (Time of Survey)</th>
<th>CPS (Uninsured all year)</th>
<th>NHIS (Time of Survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All incomes</td>
<td>10.2%</td>
<td>10.4%</td>
<td>0.2**</td>
</tr>
<tr>
<td>&lt;138% FPL</td>
<td>16.8%</td>
<td>16.8%</td>
<td>0.0</td>
</tr>
<tr>
<td>138-399% FPL</td>
<td>11.3%</td>
<td>11.9%</td>
<td>0.6**</td>
</tr>
<tr>
<td>400%+ FPL</td>
<td>3.1%</td>
<td>3.4%</td>
<td>0.3**</td>
</tr>
</tbody>
</table>

* Change is statistically significant at the 0.05/0.01 level.
Changes in Medicaid, employer-sponsored coverage, and private nongroup coverage between 2017 and 2018

Between 2017 and 2018, the ACS and CPS showed significant decreases in Medicaid coverage for all nonelderly. The CPS also showed a significant decrease in coverage for nonelderly adults and changes in coverage in the CPS were larger for both nonelderly adults (-0.6 percentage points) and all nonelderly (-0.6 percentage points) than in the ACS (-0.3 percentage points for both) (Table 3). The ACS, CPS, and NHIS all showed non-significant decreases in Medicaid coverage among children (-0.7 and -0.4 percentage points, respectively). The NHIS reported decreases in Medicaid coverage among the nonelderly and nonelderly adults as well, though these were not statistically significant.

Table 3: Changes in the Medicaid Coverage Rate by Age Group and Survey, 2017-2018

<table>
<thead>
<tr>
<th>Age Group</th>
<th>ACS (Time of Survey)</th>
<th>CPS (Any Time During Year)</th>
<th>NHIS (Time of Survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonelderly (0-64)</td>
<td>22.5%</td>
<td>22.2%</td>
<td>-0.3**</td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>41.9%</td>
<td>41.6%</td>
<td>-0.3</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>14.6%</td>
<td>14.3%</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

Sources: American Community Survey data are from the 2017 and 2018 one-year Public Use Microdata Samples. Current Population Survey health insurance data are from the 2017 and 2018 Current Population Survey Annual Social and Economic Supplement. National Health Interview Survey health insurance data come from the 2017 and 2018 National Health Interview Survey Family Core questionnaire. All data were downloaded from IPUMS.org.

Notes: We imposed the following coverage type hierarchy: Employer-sponsored insurance, Medicaid or CHIP, Medicare, Veterans Affairs, or Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) (not shown); private nongroup; and uninsured.

* Change is statistically significant at the 0.05 level.
** Change is statistically significant at the 0.01 level.

Between 2017 and 2018, as employment increased, the ACS showed an increase in the share of the nonelderly with employer-sponsored insurance (ESI) among the nonelderly (0.4 percentage points) and nonelderly adults (0.4 percentage points) (Table 4). Both the CPS and NHIS did not find any statistically significant changes in ESI between 2017 and 2018, however, suggesting any true changes in ESI coverage were likely small.

Table 4: Changes in the Employer-Sponsored Coverage by Age Group and Survey, 2017-2018

<table>
<thead>
<tr>
<th>Age Group</th>
<th>ACS (Time of Survey)</th>
<th>CPS (Any Time During Year)</th>
<th>NHIS (Time of Survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonelderly (0-64)</td>
<td>57.6%</td>
<td>58.0%</td>
<td>0.4**</td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>48.3%</td>
<td>48.7%</td>
<td>0.4</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>61.3%</td>
<td>61.8%</td>
<td>0.4**</td>
</tr>
</tbody>
</table>

Sources: American Community Survey data are from the 2017 and 2018 one-year Public Use Microdata Samples. Current Population Survey health insurance data are from the 2017 and 2018 Current Population Survey Annual Social and Economic Supplement. National Health Interview Survey health insurance data come from the 2017 and 2018 National Health Interview Survey Family Core questionnaire. All data were downloaded from IPUMS.org.

Notes: We imposed the following coverage type hierarchy: Employer-sponsored insurance, Medicaid or CHIP, Medicare, Veterans Affairs, or Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) (not shown); private nongroup; and uninsured.

* Change is statistically significant at the 0.05/0.01 level.
Between 2017 and 2018, the ACS showed declining private nongroup coverage for the nonelderly (-0.2 percentage points) and nonelderly adults (-0.3 percentage points) (Table 5).

The CPS and NHIS showed no significant changes from 2017 to 2018 for nongroup coverage.

### Table 5: Changes in the Nongroup Coverage by Age Group and Survey, 2017-2018

<table>
<thead>
<tr>
<th></th>
<th>ACS (Time of Survey)</th>
<th>CPS (Any Time During Year)</th>
<th>NHIS (Time of Survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nonelderly</strong> (0-64)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>3.4%</td>
<td>3.3%</td>
<td>-0.1</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>8.2%</td>
<td>7.9%</td>
<td>-0.3**</td>
</tr>
</tbody>
</table>

Sources: American Community Survey data are from the 2017 and 2018 one-year Public Use Microdata Samples. Current Population Survey health insurance data are from the 2017 and 2018 Current Population Survey Annual Social and Economic Supplement. National Health Interview Survey health insurance data come from the 2017 and 2018 National Health Interview Survey Family Core questionnaire. All data were downloaded from IPUMS.org.

Notes: We imposed the following coverage type hierarchy: Employer-sponsored insurance, Medicaid or CHIP, Medicare, Veterans Affairs, or Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) (not shown); private nongroup; and uninsured. */** Change is statistically significant at the 0.05/0.01 level.

From 2017 to 2018, states that did not expand Medicaid coverage under the ACA had larger increases in uninsurance than Medicaid expansion states. In the ACS, uninsurance increased by 0.3 percentage points in non-expansion states and 0.1 percentage points in Medicaid expansion states (the latter not statistically significant). According to the CPS, uninsurance increased 1.0 percentage points in non-expansion states compared to 0.5 percentage points in Medicaid expansion states.

### Table 6: Changes in Uninsurance for the Nonelderly (0-64) by State Medicaid Expansion Status and Survey, 2017-2018

<table>
<thead>
<tr>
<th></th>
<th>ACS (Time of Survey)</th>
<th>CPS (Uninsured All Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
<td>2018</td>
</tr>
<tr>
<td><strong>Medicaid expansion states</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid expansion states</td>
<td>7.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Nonexpansion states</td>
<td>14.3%</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

Sources: American Community Survey data are from the 2017 and 2018 1-year Public Use Microdata Samples. Current Population Survey health insurance data are from the 2017 and 2018 Current Population Survey Annual Social and Economic Supplement. National Health Interview Survey health insurance data come from the 2017 and 2018 National Health Interview Survey Family Core questionnaire. All data were downloaded from IPUMS.org.

Notes: We imposed the following coverage type hierarchy: Employer-sponsored insurance, Medicaid or CHIP, Medicare, Veterans Affairs, or Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) (not shown); private nongroup; and uninsured. */** Change is statistically significant at the 0.05/0.01 level.
CONCLUSION

The ACS and CPS showed increases in uninsurance for the nonelderly between 2017 and 2018 despite economic improvements. The NHIS data showed increases in uninsurance consistent with the ACS data, but its smaller sample size increased the threshold needed to show significance. Both the ACS and CPS indicated that the coverage losses were concentrated among those with HIU incomes at or above 138 percent of the FPL, suggesting they were likely not eligible for Medicaid. The ACS and CPS both found statistically significant decreases in Medicaid coverage among nonelderly adults and the nonelderly overall, perhaps due to increasing employment and higher HIU incomes.

The ACS, CPS, and NHIS differed in estimated changes in private coverage between 2017 and 2018, however. In the ACS, increasing employer sponsored coverage between 2017 and 2018 was offset by losses of private non-group coverage as well as losses of Medicaid coverage. In contrast, the CPS and NHIS showed no statistically significant change in employer-sponsored coverage or private non-group coverage between 2017 and 2018. In the CPS, increases in uninsurance were driven by losses of Medicaid coverage.

Overall, despite a strong economy and growing labor force, uninsurance rates increased in the United States between 2017 and 2018, a consistent story across the three surveys, although the increase was not measured as statistically significant in one of them due to a smaller sample size. Increased employment and incomes likely reduced the number of individuals eligible for and enrolled in Medicaid coverage. Only the ACS showed a significant increase in employer-sponsored insurance, but these gains were not sufficient to offset losses of private non-group and Medicaid coverage.

ENDNOTES


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About the Authors and Acknowledgments

John Holahan is an Institute Fellow in the Urban Institute’s Health Policy Center, Caroline Elmendorf was a research analyst and is now a Fiscal Policy Analyst for the Commonwealth of Massachusetts, and Erik Wengle is a Research Analyst in the Urban Institute’s Health Policy Center.

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