Comparing Federal Government Surveys that Count Uninsured People in America

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As various government surveys reveal different estimates of the number of Americans without health insurance coverage, analysis indicates that all data point to tens of millions of uninsured Americans—and the number is growing

The number of uninsured Americans is large and growing over time, but there is debate about exactly how many Americans are uninsured. Researchers use data from several different surveys to estimate the number of uninsured people in America and discrepancies frequently arise. Why is there so much variance in federal estimates of the number of uninsured Americans? What are the differences in how these surveys are conducted? This brief compares estimates from four national surveys conducted by the federal government used to estimate the size of the uninsured population, identifies the differences between them, and points out two common threads – all the surveys report very large numbers of Americans living without health insurance and all show that these numbers have risen.

Federal Government Surveys Used to Measure the Uninsured

The Annual Social and Economic Supplement (ASEC) to the U.S. Census Bureau's Current Population Survey (CPS) produces the most visible estimate of the number of uninsured people in the United States. The CPS estimates of health insurance coverage are the ones to which all other survey estimates are generally compared. They are also used for important policy analysis and the allocation of federal funds to states for policies, such as the State Children's Health Insurance Program.

The CPS data tend to produce estimates of health insurance coverage that differ significantly from other survey estimates of coverage.[1] The other federal government surveys include the National Health Interview Survey (NHIS), the Medical Expenditure Panel Survey Household Component (MEPS), and the Survey of Income and Program Participation (SIPP). Detailed descriptions of these surveys are available elsewhere.[2,3]

The four federal surveys are collected for different reasons. The CPS is a monthly labor force survey and the health insurance questions are added at the end of a long annual supplement. Conversely, the NHIS and MEPS are health surveys. Collecting health insurance data is a high priority in these surveys. The SIPP is an income and federal government program participation survey. The SIPP's emphasis is on the collection of federal program data on Medicaid and Medicare.

Comparison of National Estimates from Different Federal Surveys

Table 1 shows the differences among the national-level estimates from the four major federal surveys that measure health insurance coverage for 2002 (the most recent year available across all sources). The CPS provides the highest estimate of the number of people without health insurance coverage for the entire year at 44 million and the SIPP the lowest at 22 million.

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Table 1:

Survey	Uninsured for the Entire Year	Uninsured at a Specific Point-in-Time	Uninsured at Any Point During the Year
CPS	44	N/A	N/A
NHIS	26	41	51
MEPS	34	46	65
SIPP	22	43	67

Source: Peterson, Chris. "Survey Estimates of the Uninsured and of Medicaid/SCHIP Enrollees." Presented at the American Enterprise Institute's event "9 Million Less Uninsured?" Washington DC, April 8, 2005.

The range of the point-in-time estimates is much smaller (from 41 to 46 million) relative to the full-year estimates. The fact that the CPS full-year uninsured estimate falls within the range of the other three surveys' point-in-time estimates makes it tempting to interpret the CPS estimate as actually being a "point-in-time" measure.[4] However, this temptation is complicated by evidence that misreporting in the CPS, specifically among those with Medicaid, is influenced both by insurance status at the time of interview and duration of coverage.[5]

The three surveys that can be used to measure whether someone has ever been uninsured at some point during the year also produce a wide range of estimates (from 51 to 67 million). The two panel surveys that ask for monthly information and have more than one interview per year are fairly close to one another with the MEPS at 65 million and the SIPP at 67 million. The NHIS with its longer 12 month reference period produces the lowest number with 51 million. In general it appears as though the longer the reference point for measuring uninsurance, the greater the variation in estimates across surveys.

Reasons for the Discrepancies

Researchers have developed many explanations for why health insurance estimates differ across surveys. We explore several of the most important possible explanations below.

Reference Period
The CPS respondents are expected to remember any coverage they had up to 15 months prior to the interview, whereas all the other national surveys have a point-in-time measure of coverage that asks respondents what type of coverage they have at the time they are interviewed. As a result, CPS respondents tend to have more recall error (e.g., they forget about coverage they may have had).[5,6,7,8,9]

Misreporting by Respondents and the Medicaid Undercount
Misreporting of uninsurance by Medicaid enrollees is a major concern of policy-makers. Misreporting can impact uninsurance estimates in two ways discussed below: those with insurance may falsely report they are uninsured and those without insurance may mistakenly report they have insurance.

In comparison to administrative data, most surveys undercount the number of people thought to be enrolled in Medicaid. Researchers speculate that this could be due to a variety of factors such as underreporting of Medicaid coverage due to social stigma, lack of awareness of enrollment, or

confusion about the type of coverage they have (e.g., Medicare or Medicaid).[5,10] However, the extent to which uninsurance estimates are overestimated varies by the reference period – the longer the recall period, the more likely a known Medicaid enrollee will erroneously say they are uninsured. The CPS with its long reference period demonstrates the most significant amount of recall error with Medicaid enrollees reporting they are uninsured.[5,10]

Second, while some people with coverage may report that they are uninsured, it is also possible that some uninsured people report having coverage. There are two likely reasons for these false reports. First is the tendency for respondents to choose a socially acceptable response. Having health insurance is a socially acceptable answer, and uninsured people may feel pressure to answer "yes" to having coverage. Second, coding errors favor a report of coverage as it only takes one positive response to a type of health insurance for a respondent to be considered insured. It is possible that any errors due to underreporting are offset somewhat by the potential corresponding tendency to falsely report coverage.

Household-level vs. Person-level Questions
The CPS and NHIS surveys use a household-level screening mechanism for health insurance coverage asking, for example, if "anyone in the household is covered by Medicaid." Household-level screening for health insurance coverage in surveys may increase the risk of not reporting coverage, especially private health insurance coverage.[11,12] In experiments, the Census Bureau compared the household-level screen to the person-level approach in which the interviewer asks about the health insurance coverage of each person in the household. The experiment showed much higher levels of reporting health insurance coverage in the person-level approach with most of the gain from reporting private health insurance coverage.[12]

Differences in Handling Missing Data
Data processing prior to estimation of coverage rates may account for some of the discrepancy between the CPS and the other surveys. Between 10 and 15 percent of the CPS sample are missing health insurance data and the Census Bureau imputes these missing values. Recent research shows that the Census Bureau's method for imputing health insurance coverage may lead to an undercount of people with employer-sponsored coverage and result in an overestimate of the number of people who are uninsured.[13] By contrast, the other surveys have very little missing health insurance coverage data and, therefore, fewer cases to impute.

Differences in Data Editing
The NHIS is the only survey that collects detailed verbatim responses on health insurance coverage and analysts use this information to help edit the reported health insurance data. They use verbatim reports of plan names and descriptions to determine if the reported health insurance is public or private insurance, or if the coverage reported is not actually comprehensive health insurance coverage (e.g., Indian Health Service, Veteran's Administration or single service plan coverage, serious and dread disease, workers' compensation, accident and disability policies).[14] This recoding of health insurance mainly affects estimates of private insurance coverage (which drop) and uninsurance (which increase), as many people who report private health insurance coverage are edited to be uninsured. For example, these data edits increased the NHIS uninsurance rate from 15.6 to 16.8 percent in 1998.[15]

Conclusion

The number of uninsured will never be exactly pinned down. Surveys produce different estimates because they each handle complex issues in slightly different ways. While research can focus on improving surveys and estimation methodologies used to produce better estimates, the numbers themselves are just that: estimates. The bottom line is that there are tens of millions of uninsured people in this country and the numbers continue to grow. Graph 1 shows estimates from three of the four federal surveys for the number of people in America who are uninsured for an entire year.[16] The individual estimates vary greatly as we have discussed, but they are increasing

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at similar rates. Focusing on the differences and methods used to produce those numbers is important, but should not distract policy-makers from the need to address issues of cost and access for those without health insurance coverage in the United States.

Graph 1:
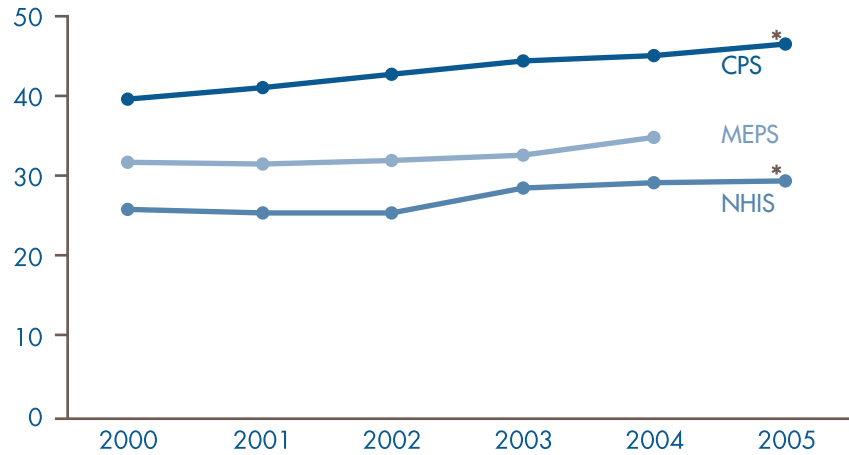
* Slightly new methods imposed in the NHIS and CPS 2005 uninsured estimates

Source: Cohen, RA, ME Martinez. 2006. Health insurance coverage: Estimates from the National Health Interview Survey, 2005. Hyattsville MD: National Center for Health Statistics, Division of Health Interview Statistics; Rhoades, JA. 2006. The uninsured in America, 1996-2005: Estimates for the U.S. Civilian noninstitutionalized population under age 65. MEPS Statistical Brief #130. Rockville MD: Agency for Healthcare Research and Policy. CPS Estimates were tabulated by the State Health Access Data Assistance Center.

Acknowledgements

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3 Other surveys also provide national estimates but are not conducted by the federal government such as the Community Tracking Survey and the National Survey of America's Families. The Behavioral Risk Factor Surveillance System is conducted by the federal government and contains health insurance coverage estimates however in many states children are excluded.

4 For a discussion see Congressional Budget Office 2003; Swartz K. 1986. Interpreting the estimates from four national surveys of the number of people without health insurance. *Journal of Economic and Social Measurement* Oct;14(3):233-42; Lewis, K, MR Elwood, and J Czajka. 1998. Counting the uninsured: A review of the literature. Washington DC: The Urban Institute, July 1998.

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9 Lewis, Elwood, and Czajka 1998.

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16 The SIPP is not included because all the relevant data are not available.

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