

**HHS Data Council Workgroup Report on  
Health Insurance Coverage Estimates:**

**An Evaluation of Existing Capacity, Content, Comparability, and Alignment**

Disclaimer: The views expressed in this article are those of the authors, and no official endorsement by the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Centers for Medicare & Medicaid Services, Centers for Disease Control and Prevention (National Center for Health Statistics), Substance Abuse and Mental Health Services Administration or U.S. Census Bureau is intended or should be inferred.

## **Executive Summary**

The surveys and statistical systems sponsored by the U.S. Department of Health and Human Services (HHS) are essential to the success of HHS' mission of enhancing the health and well-being of Americans. Additionally, the surveys and statistical systems provide most of the national statistical capacity to monitor the performance of the public health, health care, and human services systems. Accordingly, HHS periodically assesses its survey and data collection portfolio with a view to: 1) identifying data collection strategies that would strengthen HHS data resources; 2) promoting synergy across systems; 3) ensuring efficiencies, quality, utility, and timeliness; and 4) addressing high-priority data gaps.

In this capacity, the Assistant Secretary for Planning and Evaluation asked the HHS Data Council to undertake a review of HHS' major survey portfolio to assess and identify opportunities for alignment, improved comparability, best practices, and major gaps in measures and questions in selected areas of HHS and national policy and programmatic priorities. Health insurance estimates were one focus of this review. This effort built upon significant work that had already been undertaken to address the issues of comparability in estimates and data needs in health insurance measurement. This report, which was written in 2015 and based on 2013 and 2014 data, examines health insurance coverage estimates obtained from the following four core surveys: the National Health Interview Survey (NHIS), sponsored by the National Center for Health Statistics (NCHS)/Centers for Disease Control and Prevention (CDC); the Medical Expenditure Panel Survey (MEPS), sponsored by the Agency for Healthcare Research and Quality (AHRQ); and the American Community Survey (ACS) and the Current Population Survey (CPS), sponsored by the U.S. Census Bureau. Though the ACS and CPS are conducted outside of HHS, these surveys are

included in the analysis since they have also been used by policymakers and researchers to assess health insurance coverage trends. In addition to focusing on the four core surveys, this report also presents some information on two additional HHS surveys: the Medicare Current Beneficiary Survey (MCBS) and the National Survey of Drug Use and Health (NSDUH). Brief information is provided on other HHS surveys that focus on other topics but that also collect some information on health insurance status: the National Health and Nutrition Examination Survey (NHANES), the National Survey of Family Growth (NSFG), and the Behavioral Risk Factor Surveillance System (BRFSS). Note that this report describes the methodology of the surveys at the time the report was written and that since then some surveys have changed their methods, in some cases in response to the recommendations in this report.

The report addresses the following questions:

- 1) What is the degree to which the surveys' questions and measures are aligned in the key areas under discussion?
- 2) What previous reviews and analyses in these areas have been completed or are underway?
- 3) How should we go about understanding differences among the surveys, questions, measures, and estimates?
- 4) What are the best ways to move ahead?

The findings of this report are briefly summarized below and described in more detail in the body of the report.

**Question 1: What is the degree to which the surveys' questions and measures are aligned in the key areas under discussion?**

All four of the core surveys under consideration—ACS, CPS, MEPS, and NHIS—produce estimates of insurance coverage among the U.S. civilian non-institutionalized population. However, the surveys differ in their methods for asking about household members’ insurance status in their survey design and questionnaire wording (e.g., insurance status for a full calendar year compared to insurance status on the interview date). Even when questions concerning insurance status are worded similarly, survey design and other differences can result in differences in insurance estimates. Below we discuss the two HHS surveys that are part of the core surveys included in this report: the MEPS and NHIS.

Though the MEPS and NHIS both include information on a wide range of health topics and include a large section with questions on health insurance coverage, these surveys were designed to capture different measures of health insurance coverage. The MEPS insurance section was primarily designed to measure health insurance status over the course of 2 consecutive calendar years to capture the dynamics of changes in insurance status over that time period. The NHIS insurance section was primarily designed to provide cross-sectional estimates of health insurance coverage for the nation and for key population subgroups. In the MEPS, insurance variables are constructed to indicate any coverage in each month of the calendar year based on a recall period of 4-6 months. In contrast, the NHIS collects type of coverage at the time of interview.

Additionally, the NHIS collects length of time since last coverage for the uninsured and whether there was any time uninsured in the last year for the insured.

In spite of these differences, the MEPS and NHIS share some similar design features. First, a single family member may respond to the health insurance questions for all members of the family in both surveys. Second, neither survey uses formal imputation for the health insurance questions. The

MEPS conducts logical edits on its insurance data and the NHIS edits coverage reported at the interview after comparing reported health plan names with a database of health plans. Third, the definition of the uninsured is essentially the same in the NHIS and MEPS (except that NHIS counts U.S. Department of Veterans Affairs [VA] coverage as coverage, whereas MEPS does not). Persons without private coverage, Medicare, Medicaid, Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plans, or military plans are uninsured, as are persons with only Indian Health Service or single service plans.

Both the MEPS and NHIS allow for point-in-time estimates of insurance coverage and for estimates of coverage over a year's duration, though the MEPS contains more detail on insurance coverage prior to the interview date. For example, the MEPS can be used to produce estimates of the uninsured at the time of the interview, throughout the first half of the year, or at any time during the year. The MEPS also produces estimates of the U.S. civilian non-institutionalized population continuously uninsured for at least 2 consecutive years and up to 4 consecutive years. The NHIS produces estimates of the uninsured for three different time periods: at the time of the interview, for at least part of the past year, and for a period longer than a year prior to the interview date. Preliminary NHIS estimates are released on a quarterly basis prior to final data editing and weighting to provide access to the most recent information. For the point-in-time coverage estimates compared in this report, the average of MEPS monthly coverage estimates is used to derive annual cross-sectional point-in-time (averaged across months) MEPS estimates. The point-in-time NHIS estimates are based on coverage that respondents reported at the time of the NHIS interview. When comparing estimates of health insurance coverage status across the two surveys, it is critical to standardize the insurance coverage metric and the associated time period to the extent possible.

The detailed report that follows provides a summary of the questionnaire content and capacity for all of the four core surveys in addition to the MCBS and the NSDUH.

**Question 2: What previous reviews and analyses in these areas have been completed or are underway?**

All four of the major surveys—ACS, CPS, MEPS, and NHIS—produce estimates of insurance coverage among the U.S. civilian non-institutionalized population. However, the surveys differ in their methods for asking about household members' insurance status in their survey design and in questionnaire wording (e.g., insurance status for a full calendar year compared to insurance status at the survey's interview date). Even when questions concerning insurance status are worded similarly, survey design and other differences can result in differences in insurance estimates.

Previous analyses have compared estimates from the four core surveys considered in this report to each other, as well as to administrative data. This report summarizes the findings from the studies listed below:

Office of the Assistant Secretary for Planning and Evaluation, *Understanding Estimates of the Uninsured: Putting the Differences in Context*. 2002, U.S. Department of Health and Human Services.

Ringel, J.S. and J.A. Klerman, *Today or Last Year? How Do Interviewees Answer the CPS Health Insurance Questions*. 2005, RAND: Santa Monica, CA.

Short, P.F., *Counting and Characterizing the Uninsured*, in *Health Policy and the Uninsured*, C.G. McLaughlin, Editor. 2004, The Urban Institute Press: Washington, DC.

Swartz, K., *Interpreting the estimates from four national surveys of the number of people without health insurance*. J Econ Soc Meas, 1986. 14(3): p. 233-42.

Cohen, S.B., D.M. Makuc, and T.M. Ezzati-Rice, *Health insurance coverage during a 24-month period: a comparison of estimates from two national health surveys*. Health Services and Outcomes Research Methodology, 2007. 7(3-4): p. 125-144.

Davern, M., G. Davidson, J. Ziegenfuss, S. Jarosek, B. Lee, T.-C. Yu, T.J. Beebe, K.T. Call, and L.A. Blewett, *A Comparison of the Health Insurance Coverage Estimates from Four National Surveys and Six State Surveys: A Discussion of Measurement Issues and Policy Implications*. 2007, State Health Access Data Assistance Center. p. 94.

[http://www.shadac.org/files/shadac/publications/ASPE\\_FinalRpt\\_Dec2007\\_Task7\\_2\\_rev.pdf](http://www.shadac.org/files/shadac/publications/ASPE_FinalRpt_Dec2007_Task7_2_rev.pdf). Accessed September 2, 2015.

Turner, J. and M. Boudreaux, *Health Insurance Coverage in the American Community Survey: A Comparison to Two Other Federal Surveys*, in *Databases for Estimating Health Insurance Coverage for Children: A Workshop Summary*. 2010, National Academies Press (20):Washington (DC).

Centers for Medicare & Medicaid Services. *Medicaid Analytic eXtract (MAX) General Information* July 27 2015 [cited 2015 July 31]; Available from:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html>.

The University of Minnesota's State Health Access Center, The Centers for Medicare and Medicaid Services, The Department of Health and Human Services Assistant Secretary

for Planning and Evaluation, The National Center for Health Statistics, and The U.S. Census Bureau, *Phase V Research Results: Extending the Phase II Analysis of Discrepancies between the National Medicaid Statistical Information System (MSIS) and the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) from Calendar Years 2000-2001 to Calendar Years 2002-2005*. 2010. p. 95.

The University of Minnesota's State Health Access Center, The Centers for Medicare and Medicaid Services, The Department of Health and Human Services Assistant Secretary for Planning and Evaluation, The National Center for Health Statistics, and The U.S. Census Bureau, *Phase VI Research Results: Estimating the Medicaid Undercount in the Medical Expenditure Panel Survey Household Component (MEPS-HC)*. 2010. p. 41.

The University of Minnesota's State Health Access Center, The Centers for Medicare and Medicaid Services, The Department of Health and Human Services Assistant Secretary for Planning and Evaluation, The National Center for Health Statistics, and The U.S. Census Bureau, *Phase IV Research Results: Estimating the Medicaid Undercount in the National Health Interview Survey (NHIS) and Comparing False-Negative Medicaid Reporting in NHIS to the Current Population Survey (CPS)*. 2008. p. 166.

State Health Access Data Assistance Center, *Comparing Federal Government Surveys that Count the Uninsured*. 2013, Robert Wood Johnson Foundation. p. 9.

National Center for Health Statistics (NCHS), U.S. Census Bureau. Comparison of the Prevalence of Uninsured Persons from the National Health Interview Survey and the Current Population Survey, January–April 2014. September 2014.



[http://www.cdc.gov/nchs/data/nhis/health\\_insurance/NCHS\\_CPS\\_Comparison092014.pdf](http://www.cdc.gov/nchs/data/nhis/health_insurance/NCHS_CPS_Comparison092014.pdf). Accessed August 21, 2015.

**Question 3: How should we go about understanding differences among the surveys, questions, measures, and estimates?**

The report summarizes both current, or point-in-time, coverage estimates and full-year coverage estimates. (Full-year estimates report all sources of insurance throughout a year's period with uninsured estimates indicating lack of insurance for a full year.) Since these current and full-year insurance estimates are not directly comparable, this report contains comparisons of point-in-time estimates of insurance coverage from the ACS, MEPS, and NHIS, as well as comparisons of full-year insurance status estimates from the MEPS and CPS and estimates of the percentage without insurance for 1 year or more from the NHIS. For those aged 65 and over, estimates of coverage from MCBS are also reported in the text.

The point-in-time estimates for the ACS and NHIS are for coverage reported at the interview date for interviews that take place throughout the calendar year. The MEPS estimates are an average of monthly estimates of insurance status that represent the percentage of the population with coverage from a particular source for at least 1 day in a month and estimates of the percentage of the population that is uninsured for an entire month. The MEPS and the ACS/NHIS estimates differ slightly in definition (i.e., having insurance for at least one day of a given month vs. having insurance on the specific interview date), but also because of the possibility of recall bias.

Specifically, insurance coverage in the MEPS is reported for the interview date as well as for the months prior to the interview date (from 1 to 6 months depending on the interview date), while insurance coverage in the NHIS is reported for the interview date only.

The full-year estimates from the MEPS and CPS are similar in the time period that they represent. Both survey estimates are for coverage from a particular source, private or public, at any point during the calendar year and for lack of coverage for the entire calendar year. The surveys differ, however, in their questionnaire design and also in their degree of recall bias. The CPS asks about monthly coverage in the calendar year preceding the February through April CPS interview dates. The MEPS asks about monthly coverage during two interviews over the calendar year and a third interview in the following calendar year. The NHIS estimate of the percentage without insurance for the full year might also be affected by recall bias since it asks respondents how long (relative to the interview date) it has been since they last had health care coverage, with possible responses of 6 months or less, more than 6 months but not more than a year ago, more than one year but not more than 3 years, more than three years, or never had insurance.

The detailed report provides a comparison of the point-in-time and full-year survey estimates obtained for 2013, the most current year in which all four core surveys had released national estimates as of the writing of this report. Estimates are reported by age group, income category, and race and ethnicity. The discussion focuses on the four core surveys, plus some discussion of estimates of coverage for those age 65 and over from MCBS. Some tables including estimates from NSDUH are also provided.

#### **Question 4: What are the best ways to move ahead?**

We have the following recommendations and observations:

#### **Recommendations**

**We recommend using the NHIS for estimates of current coverage.** The design of the NHIS is

best suited for collecting information on current coverage because: 1) it is designed to collect insurance information at the interview date; 2) it contains detailed questions about sources of coverage allowing for coverage type verification; 3) it has a large sample size; and 4) the survey is fielded continuously throughout the year, allowing for tracking of changes that may occur during the year.

**We recommend using MEPS data for calendar year national estimates of the uninsured and for longitudinal estimates on transitions in coverage and sources of coverage.** The design of the MEPS is best suited for collecting information over a longer period of time, given that it collects information on two calendar years with five interview rounds.

**We recommend modifying the NHIS hierarchy used for the insurance classification of adults aged 65 and over for NCHS reports and analytic projects so that reports of private health insurance and Medicare Advantage plans are deduplicated.** This would result in an increased report of Medicare only and produce estimates that are closely aligned to MEPS and MCBS. Respondents with a duplicative report of Medicare Advantage and private coverage will be placed in a Medicare Advantage analytic category. Note that this change does not require any change to how health insurance data is edited on the NHIS, just in how the estimates are reported in tables and used in analytic products. End users will still be able to develop their own hierarchies from variables on public use files.

**We recommend that the NHIS modify the answer categories to the question “How long has it been since you last had health care coverage?”** This modification will align the responses to other national federal surveys, facilitate the comparison of estimates of long-term uninsurance,

and contribute to the alignment effort currently underway by the HHS. The new answer categories will be:

- 1) 6 months or less
- 2) More than 6 months, but less than 1 year
- 3) 1 year
- 4) More than 1 year, but less than 3 years
- 5) 3 years or more
- 6) Never, Refused, Don't know

**We recommend using MCBS as a point of comparison, when the data become available, for Medicare beneficiaries age 65+ residing in the community.** Like the MEPS, the MCBS is also a panel survey and can provide estimates over time for Medicare beneficiaries. It also has the added benefit of administrative data on insurance coverage. MCBS releases variables related to insurance coverage with an indicator for the source of insurance coverage (survey only, survey and administrative records, and administrative records only) for both original Medicare (fee-for-service: Parts A and B) as well as Medicare Advantage beneficiaries. In order to make the MCBS estimates more available for benchmarking, as of this writing MCBS planned to release a public use file, which would contain insurance data for analysts (the public-use file will include data from MCBS Access to Care 2013). This cross-agency effort reiterated the importance of creating this public use file for data users.

**We recommend that the MEPS add probes to the 2018 MEPS questionnaire for individuals to verify insurance coverage and lack of coverage.** As of the writing of this report, the MEPS

was exploring adding questions that are similar to the CPS verification questions in the 2018 MEPS questionnaire.

**We recommend that the MEPS add a question on VA coverage to the 2018 MEPS questionnaire to facilitate cross-survey comparisons on uninsured rates.**

**We recommend that, in situations in which population-based surveys wish to include a single measure of health insurance coverage status in their questionnaires in order to serve as a control variable for various types of analyses, they use the NHIS/ACS question.**

### **Observations**

1. The estimates that are consistent with a given survey's intended main purpose appear to perform best when comparing estimates from surveys for similar time periods (e.g., comparing point-in-time estimates across surveys and comparing full-year estimates across surveys). For example, the surveys that are designed to collect information on point-in-time insurance status (ACS and NHIS) may produce superior point-in-time estimates compared to the MEPS, which is designed to collect longitudinal information, possibly because of the different degree of recall bias in MEPS compared to the ACS and NHIS. Estimates of the percentage uninsured at a point in time from the ACS and NHIS are both lower than similar estimates from MEPS. The ACS and NHIS estimates of the percentage of the population that is uninsured at different points in time during 2013 are also almost identical. This may be due to similar approaches by the ACS and NHIS to asking about insurance coverage. Both surveys present respondents with a list of coverage types and ask respondents to select all that apply. However, while their uninsured estimates are similar, the ACS and NHIS have different estimates of the sources of coverage. These differences likely stem from the

limitation the ACS faces of being able to ask only one insurance question on both their paper and internet versions of the survey. In contrast, the NHIS asks many detailed questions on insurance coverage, following up on the responses to the initial coverage question (which contains a list of insurance sources). With respect to full-year estimates, the MEPS full-year estimates may be more accurate than those from the CPS, due to the longitudinal design of the MEPS. This longitudinal design reduces the degree of recall bias compared to the CPS, which asks about calendar year coverage in one interview. Full-year estimates of the uninsured from NHIS represent being without insurance for more than a year and are also asked about in one interview, rather than multiple interviews as in the MEPS.

2. Differences in insurance estimates across surveys for adults by poverty status has raised the issue of how different surveys capture information on income for young adults who are students living away from home. The MEPS and CPS include the student's family income when estimating the student's poverty status. The ACS and NHIS only include the student's income. This is an important factor to keep in mind for analyses of young adult's access to subsidized coverage from marketplaces as well as eligibility for Medicaid. Differences among the surveys in income measurement—for example, in the number of questions on detailed income sources and in the methods used to impute missing income information—may also produce differences in insurance estimates by income group for both children and adults.
3. The analyses conducted for this report highlight key differences in health insurance coverage estimates from different federal surveys that arise from temporal differences in insurance coverage questions (current vs. over a period of time) and in the mode and analytical goals of each survey. For example, the NHIS asks detailed questions about current coverage with in-person interviews while the ACS contains one question on insurance coverage in the

paper/internet version of the survey and separate questions on each coverage type in the computer-assisted telephone interviewing (CATI) version. In addition, the CPS contains information on current coverage as an anchor for asking about coverage for the previous calendar year, and has designed its questions using methodology meant to obtain information with a long recall period. The MEPS asks about insurance status over a 2-year period using multiple interviews, and therefore has shorter recall periods than the CPS. Also, one of the analytical goals of the MEPS is to link information on health insurance and employment and, as a result, health insurance questions are first asked in the employment section of the questionnaire. In addition, because MEPS has multiple interviews, it uses dependent interviewing techniques in the second through fifth interviews to review coverage reported in earlier rounds.

4. The results from this report support the evidence from previous research that has shown that the ACS health insurance question produces an underreporting of Medicaid and other means-tested programs and an over-reporting of direct purchase health insurance coverage, compared to other surveys. The 2016 ACS Content Test included a modified version of the ACS health insurance question that was designed to address these issues.
5. While the surveys differ in their approach to asking health insurance questions, there has been a great deal of collaboration between the surveys in designing new questions and approaches to asking about insurance coverage through the new marketplaces in recent years. Another example of collaboration between the surveys is that when adding questions on Health Savings Accounts and Flexible Spending Accounts, the MEPS used the questions exactly as worded in the NHIS. We expect this level of collaboration to continue as the surveys analyze data collected on marketplace and Medicaid coverage and decide whether revisions to the

questions and approaches are necessary.

6. Comparisons of survey data with administrative data will be necessary to evaluate how well the surveys are identifying marketplace and Medicaid enrollees. Also, our focus was on national estimates of health insurance coverage, and future attention could also be given to evaluations of the capacity and alignment of coverage estimates obtained from federal surveys at both the state and subnational levels.



## **Introduction**

The surveys and statistical systems sponsored by HHS are essential to the success of HHS' mission of enhancing the health and well-being of Americans. Additionally, the surveys and statistical systems provide most of the national statistical capacity to monitor the health and well-being of the population and the performance of the public health, health care, and human services systems. Accordingly, HHS periodically assesses its survey and data collection portfolio with a view to: 1) identifying data collection strategies that would strengthen the capacity of HHS data resources; 2) promoting synergy across systems; 3) ensuring efficiencies, quality, utility, and timeliness; and 4) addressing high-priority data gaps.

In this capacity, the Assistant Secretary for Planning and Evaluation asked the HHS Data Council to undertake a review of HHS' major survey portfolio to assess and identify opportunities for alignment, improved comparability, best practices, and major gaps in measures and questions in selected areas of HHS and national policy and programmatic priorities. Health insurance estimates were one focus of this review. This effort built upon significant work that had already been undertaken to address the issues of comparability in estimates and data needs in health insurance measurement. In the past several years, the Health Insurance Coverage Data Council/HHS Workgroup and an OMB/Census Bureau/HHS Work Group on Health Insurance Measurement have assessed questions and levels of data comparability in coverage estimates across the surveys under their purview and also focused on gaps in content to inform health policy and practice and health reform evaluations.

Previous assessments of health insurance questions on HHS surveys such as the NHIS and the

MEPS have found a fair degree of similarity in questions and a general degree of comparability in trends in survey estimates. Prior evaluations have also identified areas of alignment as well as differences in survey content and estimates between HHS and Census Bureau surveys, such as the ACS and the CPS. Recent examinations of the comparability of those estimates with NHIS have revealed a good degree of alignment across the respective surveys.

Given the importance of accurate and timely health insurance coverage estimates to inform policy and practice and to facilitate evaluations of recent health reform initiatives, it is essential that HHS maintains capacity to assess these issues of content, comparability, and alignment across the core surveys on an ongoing basis. In this light, the Health Insurance Coverage Data Council Workgroup continued an evaluation of the core HHS surveys focused on health insurance coverage measurement to examine capacity, content, comparability, and remaining gaps. This report, which was written in 2015 and based on 2013 and 2014 data, was designed to identify the unique capacities of the respective surveys under consideration as well as the alignment of estimates that measure comparable dimensions of health insurance coverage. The analyses are extended to include high-visibility surveys outside of HHS, such as the ACS and CPS, that have been used by policymakers to assess coverage trends.

The report addresses the following questions:

- 1) What is the degree to which the surveys' questions and measures are aligned in the key areas under discussion?
- 2) What previous reviews and analyses in these areas have been completed or are underway?
- 3) How should we go about understanding differences among the surveys, questions, measures, and estimates?

4) What are the best ways to move ahead?

The report also includes a summary of current limitations in HHS survey coverage data and provides recommendations regarding which HHS source of data is most appropriate to inform specific dimensions of health insurance coverage. Note that this report describes the methodology of the surveys at the time the report was written. Since then, some surveys have changed their methods, in some cases in response to the recommendations in this report.

### **HHS Data Council Workgroup on Health Insurance Coverage Estimates**

The HHS Data Council Workgroup on Health Insurance Coverage Estimates consists of members from HHS agencies that conduct the core departmental surveys giving particular salience to health insurance coverage measurement in addition to other core surveys where coverage measurement is of second order. Given the importance of the ACS and the CPS as frequently cited additional sources for health insurance coverage estimates, the Workgroup also includes members from the Census Bureau.

Committee Members include:

Steven Cohen, Chair until 2015 (AHRQ)

Robin Cohen (CDC/OPHSS/NCHS)

Joel Cohen, Chair 2015 and after (AHRQ)

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This report examines the comparability and alignment of health insurance coverage estimates obtained from the following four core surveys: the NHIS, sponsored by the National Center for Health Statistics; the MEPS, sponsored by the Agency for Healthcare Research and Quality; and the ACS and the CPS sponsored by the Census Bureau. In addition, some information is provided for two additional HHS surveys: the Medicare Current Beneficiary Survey (MCBS, CMS) and the National Survey on Drug Use and Health (NSDUH, SAMSHA). Other surveys that are included in this evaluation include: National Survey of Family Growth (NSFG, NCHS), National Health and Nutrition Examination Survey (NHANES, NCHS), and Behavioral Risk Factor Surveillance System (BRFSS, CDC).

The evaluation is limited to the listed set of HHS and Census Bureau surveys. Consequently, coverage estimates obtained from non-federal coverage surveys or from administrative data sources are not in scope for this assessment.

## **National Surveys Providing Health Insurance Coverage Estimates**

### **Core health insurance surveys**

**The National Health Interview Survey (NHIS):** The NHIS has monitored the health of the nation since 1957. NHIS data on a broad range of health topics are collected through personal household interviews. For years, the Census Bureau has been the data collection agent for the National Health Interview Survey. Survey results have been instrumental in providing data to track health status, health care access, and progress toward achieving national health objectives.

The NHIS has collected health insurance data periodically since 1959 and annually since 1989. The NHIS health insurance questions have changed and expanded over time to reflect changes in health insurance coverage as well as questionnaire design. Since 1997, the content and flow of the health insurance section has remained relatively stable, incorporating new programs where necessary. For example, a State Children's Health Insurance Program (CHIP) category was added to the list of coverage types on the questionnaire following the passing of The Balanced Budget Act of 1997 that established SCHIP (BBA 97) (P.L. 105-33). Since 2011, questions on relationships to policyholders, coverage of individuals outside of the household, and changes in coverage have been added to the NHIS instruments to take into account the passage of the Affordable Care Act of 2010 (P.L. 111-148, P.L. 111-152) (ACA). New questions added in 2014 obtain information about whether coverage was obtained through the federal or state-based health insurance marketplaces.

**Medical Expenditure Panel Survey (MEPS):** The MEPS, sponsored by AHRQ, is the core health care expenditure survey in the U.S. Over the past several years, the MEPS data have

supported a highly visible set of descriptive and behavioral analyses of the U.S. health care system. These include: 1) studies of the population's access to, use of, expenditures on, and sources of payment for health care; 2) the availability and costs of private health insurance in the employment-related and non-group markets; 3) the population enrolled in public health insurance coverage and those without health care coverage; and 4) the role of health status in health care use, expenditures, and household decision making, and in health insurance and employment choices. As a consequence of its breadth, the data have informed the nation's economic models and their projections of health care expenditures and utilization. The level of the cost and coverage detail collected in the MEPS has enabled public and private sector economic models to develop national and regional estimates of the impact of changes in financing, coverage, and reimbursement policy, as well as estimates of who benefits and who bears the cost of a change in policy.

The MEPS Household Component (HC) is designed to provide annual national estimates of the health care use, medical expenditures, sources of payment and insurance coverage for the U.S. civilian non-institutionalized population. In addition to collecting data to yield annual estimates for a variety of measures related to health care use and expenditures, the MEPS also provides estimates of measures related to health status, demographic characteristics, employment and access to health care. Estimates can be provided for individuals, families and population subgroups of interest. The data collected in this ongoing longitudinal study also permit studies of the determinants of the use of services and expenditures, and changes in the provision of health care in relation to social and demographic factors such as employment or income; the health status and satisfaction with health care of individuals and families; and the health needs of subgroups such as the elderly and children.

The households selected for the MEPS-HC are a subsample of those participating in the NHIS conducted by NCHS. The MEPS-HC consists of an overlapping panel design in which any given sample panel is interviewed a total of five times in person over 30 months to yield annual use and expenditure data for 2 calendar years. These rounds of interviewing are spaced about 5 to 6 months apart, with the first round occurring in late January (for each new MEPS panel). The interview is administered through a computer-assisted personal interviewing (CAPI) mode of data collection, and takes place with a family respondent who reports for him/herself and for other family members. Initiated in 1996, the current MEPS annual survey consists of approximately 14,000 families and 35,000 individuals, and reflects an oversample of Hispanics, blacks, and Asians. Data from two panels are combined to produce estimates for each calendar year.

**The Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC):**

The CPS is a monthly survey conducted by the Census Bureau for the Bureau of Labor Statistics. The CPS ASEC is the primary source of poverty estimates for the United States and also a main source for estimates of the unemployment rate. Questions about age, family size, sex, race, and Hispanic origin are included in the basic CPS. The CPS ASEC is an annual supplemental survey of about 100,000 addresses (yielding approximately 78,000 responding households) and includes detailed questions regarding health insurance coverage, income received, and place of residence during the previous year. CPS ASEC interviews are conducted from February through April and ask about the prior calendar year. Questions ask about each household member's health insurance coverage during the previous calendar year.

Health insurance questions have been asked in the CPS since 1980 as a part of a mandate to collect data on non-cash benefits, but questions about all health insurance types date back to 1987.

Due to the recent redesign of the CPS ASEC in 2014 (covering insurance information for 2013), the data from 1987 to 2012 are incompatible with data from 2013 and beyond. The redesigned survey questions, implemented in 2014, include information about coverage during the time of the interview and collect monthly data on coverage from the time of the interview to January of the previous calendar year. The CPS ASEC also includes new content on coverage through the Health Insurance Marketplace and employer-sponsored insurance offers and take-up.

**The American Community Survey (ACS):** The ACS is the nation's largest survey with about 3.5 million addresses annually. As a result, it produces estimates for small geographic populations, including counties, cities, towns, and census block groups. The ACS asks health insurance coverage questions and numerous questions on housing and socioeconomic characteristics such as income, age, family size, and race and ethnicity. The ACS first began to ask questions on health insurance coverage in 2008. Respondents are asked whether each household member is currently covered (by specific types of health insurance) at the time of interview. In 2016, the Census Bureau is content testing revised and new questions to measure health insurance coverage. If adopted, the 2019 ACS health insurance questions could include questions that ask if there is a health insurance premium for a person's plan and if so, whether or not the person receives a subsidy or tax credit to help pay for the cost of the premium.

#### **Additional federal surveys providing health insurance coverage estimates**

**The Medicare Current Beneficiary Survey (MCBS):** The MCBS is a continuous, multipurpose survey of a nationally representative sample of the Medicare population, conducted by the Office of Enterprise Data and Analytics (OEDA) of the Centers for Medicare & Medicaid Services (CMS) through a contract with NORC at the University of Chicago. The survey, which is linked to



Medicare claims data, was developed in 1991 to aid CMS in administering, monitoring, and evaluating the Medicare programs. The central goals of MCBS are to determine expenditures and sources of payment for all services used by Medicare beneficiaries, including co-payments, deductibles, and non-covered services; to ascertain all types of health insurance coverage and relate coverage to sources of payment; and to trace processes over time, such as changes in health status and spending down to Medicaid eligibility and the impacts of program changes, satisfaction with care, and usual source of care.

**The National Survey of Drug Use and Health (NSDUH):** The NSDUH is the primary source of statistical information on the use of illegal drugs, alcohol, and tobacco by the civilian, non-institutionalized population of the United States aged 12 years or older. The survey also includes several modules of questions that focus on mental health issues. Conducted by the Federal Government since 1971, the survey collects data through face-to-face interviews with a representative sample of the population at the respondent's place of residence. The survey is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), HHS, and is planned and managed by SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ). Data collection and analysis are conducted under contract with RTI International.

The NSDUH collects information from residents of households and non-institutional group quarters (e.g., shelters, rooming houses, dormitories) and from civilians living on military bases. The survey excludes homeless persons who do not use shelters, military personnel on active duty, and residents of institutional group quarters, such as jails and hospitals.

From 1971 through 1998, the survey employed paper-and-pencil data collection. Since 1999, the NSDUH interview has been carried out using computer-assisted interviewing (CAI). Most of the

questions are administered with audio computer-assisted self-interviewing (ACASI). ACASI is designed to provide the respondent with a highly private and confidential mode for responding to questions in order to increase the level of honest reporting of illicit drug use and about other sensitive topics, including mental health issues. Less sensitive items are administered by interviewers using CAPI.

Consistent with previous years, the 2013 NSDUH employed a state-based design with an independent, multistage area probability sample within each state and the District of Columbia. The eight states with the largest population (which together account for about half of the total U.S. population aged 12 or older) are designated as large sample states (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) and each have a sample size of about 3,600. For the remaining 42 states and the District of Columbia, the sample size is about 900 per state. In all states and the District of Columbia, the design oversampled youths and young adults; each state's sample was approximately equally distributed among three age groups: 12 to 17 years, 18 to 25 years, and 26 years or older.

A series of questions was asked to identify whether respondents currently were covered by Medicare, Medicaid, CHIP, military health care (such as TRICARE or CHAMPUS), private health insurance, or any kind of health insurance (if respondents reported not being covered by any of the above). If respondents did not currently have health insurance coverage, questions were asked to determine the length of time they were without coverage and the reasons for not being covered. For youths aged 12 to 17 and respondents who were unable to respond to the insurance or income questions, proxy responses were accepted from a household member identified as being better able to give the correct information about insurance and income.

**The National Health and Nutrition Examination Survey (NHANES):** The NHANES is designed to assess the health and nutritional status of adults and children in the U.S. The survey consists of interviews and physical examinations and examines a nationally representative sample of about 5,000 persons each year. The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions. The examination component consists of medical, dental, and physiological measurements, as well as laboratory tests administered by highly trained medical personnel.

Findings from this survey have been used to determine the prevalence of major diseases and risk factors for diseases. Information has been used to assess nutritional status and its association with health promotion and disease prevention. The NHANES findings are also the basis for national standards for such measurements as height, weight, and blood pressure. The survey data have been used in epidemiological studies and health sciences research, which help develop sound public health policy, direct and design health programs and services, and expand the health knowledge for the nation.

**The National Survey of Family Growth (NSFG):** The NSFG gathers information on family life, marriage and divorce, pregnancy, infertility, use of contraception, and men's and women's health. The survey results are used by the HHS and others to plan health services and health education programs, and to do statistical studies of families, fertility, and health. The NSFG was first fielded periodically beginning in 1973 and since 2006 has operated under a continuous interviewing design.

The NSFG interviews men and women aged 15-44 years living in households in the United States. For each interviewing year (every 12 months beginning in mid-September), it is

expected that about 5,000 interviews will be completed. All interviews are conducted in person by female interviewers who are hired and managed by the University of Michigan Institute for Social Research.

**The Behavioral Risk Factor Surveillance System (BRFSS):** The BRFSS is a collaborative project between all U.S. states and participating U.S. territories and the CDC. The survey is an ongoing surveillance system designed to collect uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, disabilities, injuries, and preventable infectious diseases that affect the non-institutionalized adult population (18 years of age and older) residing in the U.S. Factors assessed by the BRFSS include tobacco use, HIV/AIDS knowledge and prevention, exercise, immunization, health status, health-related quality of life, health care access and use of clinical preventive services, inadequate sleep, hypertension awareness, cholesterol awareness, chronic health conditions, alcohol consumption, fruits and vegetables consumption, arthritis burden, and seatbelt use. Since 2011, BRFSS conducts both landline telephone- and cellular telephone-based surveys.

The survey is one of the main data sources that public health officials and practitioners use to set health goals as well as to monitor the progress of public health programs and policy implementation at national, state, and local levels. BRFSS survey data have been used in epidemiological studies and health sciences research to monitor the impact of health system transformation, such as change in the prevalence of health insurance coverage, unmet healthcare due to cost, and having a usual healthcare provider. The sufficient sample size in BRFSS has facilitated analysis of prevalence estimates for selected metropolitan and micropolitan statistical areas and counties.

More details with respect to the design specifications and analytic capacity of the core surveys plus MCBS and NSDUH can be found in Table 1a. This includes information on the respective survey's sample size, response rate, periodicity, data release schedule, and capacity for state level estimates, in addition to longitudinal design capacity. Table 1b provides more details on the respective health insurance coverage questions in the four core surveys.

## **Health Insurance Surveys: Alignment and Divergence**

### **Question 1: What is the degree to which the surveys questions and measures are aligned in the key areas under discussion?**

All four of the core health insurance surveys ask about the insurance coverage of respondents and their household members. Specifically, the surveys ask whether the individual has coverage through specific insurance sources such as private health insurance, Medicare, Medicaid, and other sources of public coverage. The questions allow individuals to select multiple sources of coverage if applicable. The overarching similarities of these questions enable national coverage estimates that can be compared across the surveys.

A key way that the surveys vary is in the time-frame of the coverage questions. That is, the surveys differ in whether they ask about current, annual, or monthly insurance coverage. The ACS and the NHIS both ask about the subject's current coverage as of the interview date. In contrast, the most recent version of the CPS questionnaire asks about coverage at the interview date (February through April) and all months prior to that, going back to January of the previous calendar year. The MEPS asks respondents about their current coverage and about their insurance status in each month over a period of 2 calendar years in five rounds of interviews.

The time-frame of the insurance estimate affects the comparability of the results. For instance, an estimate of the proportion of the population that is uninsured at a survey's interview date will be higher than an estimate of the proportion that is uninsured for the entire calendar year since the interview date estimate includes all individuals who are uninsured for the entire calendar year plus others who are uninsured at the interview date but had coverage at some other point in the year.

The surveys also differ in terms of their sampling procedure and the kinds of analyses the samples enable. In general, the sample size of the surveys will determine their ability to detect year-to-year differences as well as to produce sub-regional estimates. ACS, CPS, and NHIS select samples that produce reliable coverage estimates for all fifty states and the District of Columbia. In contrast, MEPS cannot be used to reliably estimate coverage for all states [1]. Also, the standard errors on state-level estimates are larger for NHIS relative to those from CPS and ACS.

There are also important differences in how the coverage questions are asked that reflect the different analytical goals of the surveys and also the periodicity of the interviews. The following section describes how health insurance questions are asked in the ACS, CPS, MEPS and NHIS.

### **Description of Health Insurance Questions in the ACS**

The Census Bureau added one question about health insurance coverage to the 2008 ACS. The ACS is conducted in the following modes: two self-administered modes (paper and internet), and two interviewer-administered modes (computer-assisted telephone and person interviews, called CATI and CAPI). As much as possible, all of the modes have the same content, wording and skip patterns. In the self-administered modes, the question is presented as one question with multiple options. In the interviewer-administered modes, individual questions are asked for each type of

insurance. In order to keep consistency between the modes, there is no customization for the names of the state Medicaid plans. The question asked in the self-administered mode is listed below. Respondents are instructed to report each person's current coverage by marking "yes" or "no" for each of the eight types listed (labeled as subparts a through h).

Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a-h.

- a. Insurance through a current or former employer or union (of this person or another family member)
- b. Insurance purchased directly from an insurance company (by this person or another family member)
- c. Medicare, for people 65 and over, or people with certain disabilities
- d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
- e. TRICARE or other military health care
- f. VA (including those who have ever used or enrolled for Veterans Affairs (VA) health care)
- g. Indian Health Service
- h. Any other type of health insurance or health coverage plan – Specify

[Add space to write-in a response to subpart h]

The health insurance question is meant to capture only comprehensive plans, but the respondent has to refer to the help text that is mailed along with the paper form to be aware of this fact. For example, plans that only cover specific health services, such as dental plans, are not considered

health insurance coverage according to the help text.

### **Post data collection data processing**

Missing responses to the question in subparts a through g are assigned a “yes” or “no” response through imputation (hot-deck allocation) and logical editing [2]. Note that the ACS does not collect information on policyholder/dependent status for private coverage. The lack of information on policyholder/dependent status reduces the correlations in imputations for missing insurance status for private insurance.

The 2016 ACS content test was designed to test the effects of:

- 1) Reordering the list of health insurance coverage types,
- 2) Adding instructions so that respondents do not report single service plans (e.g., “Do NOT include plans that cover only one type of service, such as dental, drug or vision plans.”),
- 3) Rewording the Medicaid question (e.g., dropping the reference to “disability”),
- 4) Adding the following term “or through a state or federal marketplace, HealthCare.gov, or a similar state website” to the directly purchased private insurance question, and
- 5) Improving edit checks in the internet and interview-administered modes.
- 6) Adding the CPS question about subsidized premiums for marketplace coverage.

### **Description of Health Insurance Questions in the CPS ASEC**

In 2014, the Census Bureau implemented changes to the health insurance questions in the CPS, affecting estimates for calendar year 2013. Since health insurance estimates from the 2013 calendar year and beyond are different from estimates in prior years, time trends from the CPS are not



presented in this report. The redesigned CPS health insurance instrument starts by asking about current coverage and then uses follow-up questions to find out (1) when that coverage began and (2) which months the individual had the coverage. If the individual does not have current coverage, the instrument asks about coverage during the previous calendar year through the present. In order to determine plan type, the instrument asks a series of questions, beginning with the general source of coverage and then asking more specific questions to identify the plan type. To identify which household members are covered by each plan, the instrument asks about an individual's own coverage, and then asks if the same plan type covered any other household members. Further questions ask each household member about any additional plans that they may have [3].

The redesigned CPS is able to measure health insurance marketplace coverage. All people who have privately purchased insurance and those with any kind of government-provided health insurance (besides Medicare or military coverage) are asked if the person obtained their coverage through state or federal marketplaces. Regardless of the response, they are then asked if the person paid a monthly premium for their plan, and if yes, whether the premium is subsidized based on family income.

### **Post data collection data processing**

The CPS concentrates on collecting data on income, and health insurance questions are at the end of the interview. Since the health insurance questions come at the end of the survey, item non-response can be higher than for the income questions. Health insurance is imputed (using a hot-deck method) when missing [4]. Further, logical edits are used to assign government health insurance coverage to some people that did not have it [2].

## **Description of Health Insurance Questions in the Medical Expenditure Panel Survey-Household Component**

In the MEPS-HC, respondents are first asked about their health insurance status when they are asked about family members' current and former jobs. When reviewing job details, respondents are asked whether the employee held health insurance through that job. This is a design element in the MEPS-HC that was developed to maintain linkages between employment characteristics and health insurance that are important for many analyses of employer-sponsored coverage. This link also enables the MEPS-HC to ask questions about coverage through the Small Business Health Options Program (SHOP) using state-specific SHOP marketplace names since this form of insurance is linked to information on employer size. At the end of the employment section, a list has been developed of policyholder/employer pairs in the family.

The health insurance section of the MEPS-HC is asked immediately after the conclusion of the employment section. At the beginning of the health insurance section, respondents are asked to review the policyholder/employer pairs that were compiled during the employment section in order to provide additional detail on dependents associated with each source of coverage and covered persons' length of coverage during the interview round. At this point in the interview, a small percentage of respondents report that they had mistakenly reported coverage through that policyholder/employer pair.

Once all policyholder/employer pairs have been reviewed, the questionnaire then includes questions on different types of public coverage (Medicare, Medicaid/CHIP, other government hospital/physician coverage and TRICARE/CHAMPVA coverage). The questions on public

coverage are asked as household-level questions (e.g., “At any time since {the start of the interview round}, has anyone in the family had coverage through {public program}?”). If the respondent answers “yes,” then the questionnaire asks the respondent to identify which family members are covered and the time period of the coverage during the interview round. State-specific names are used when asking about Medicaid and CHIP coverage.

After the questions on public coverage are asked, interviewers show respondents a “show card,” which lists detailed categories of private insurance through which individuals may obtain coverage, including: from a group, school, insurance agent, insurance company or health maintenance organization (HMO), union, from a state or federal marketplace (with the state name listed when appropriate), from someone outside the household, or from some other source. The show card also lists different categories of employers (previous employer, current employer, spouse’s employer, some other employer) so that respondents have another opportunity to identify employer-sponsored insurance coverage in case it had not been reported earlier in the employment section. Once a respondent identifies a category of private insurance from the show card, they are asked to provide information on all policyholder/insurance source pairs within that category and identify any dependents on the source of coverage and the time period of coverage for each person. They are then prompted about coverage from any other sources listed on the show card, and repeat the process for identifying coverage within as many additional categories as necessary.

Starting in 2011, MEPS interviewers have reviewed all sources of private and public coverage that respondents have identified up to the point in the interview that occurs right before respondents see the show card with categories of private insurance. This is to help remind respondents of the insurance categories they have reported before asking about additional sources of coverage. While

there is no official probe for insurance at this point, it is possible for interviewers to add additional sources of public coverage at this point in the interview if, during the review, respondents indicate that a source of coverage is missing.

Once all public coverage and private policyholder/insurance source pairs have been enumerated, whether from an employer or other source, the questionnaire asks details about coverage, including whether the private coverage includes hospital/medical benefits. For the purposes of classifying reported coverage as comprehensive coverage, reports of hospital/medical or Medigap benefits are considered to be comprehensive as are reports with missing information on hospital/medical and Medigap benefits. Coverage that is explicitly identified as not being hospital/medical and not being Medigap coverage is not counted as comprehensive insurance. Such policies generally include dental, vision, or drug policies or policies that are extra cash or dread disease, or for accidents or disability.

Finally, at the end of the first MEPS interview, respondents are asked about their insurance coverage prior to January 1st of the calendar year of the interview. The questions ask insured individuals whether they were ever uninsured during the past year and ask uninsured individuals or those who report only non-comprehensive coverage, whether they had ever been insured during the past 2 years. There has been anecdotal evidence that some respondents who had been classified as not having comprehensive coverage then report that they did, in fact, have coverage, and that this new coverage information is entered into comment fields that are later coded into the appropriate insurance variables.

Note that the information provided above describes the types of questions that respondents are asked at the first MEPS interview. In the second through fifth rounds of interviews, the questions

are worded differently for reviews of insurance coverage that had been reported in an earlier round to determine if the coverage is still in effect for each previously covered person and if there were any additional people covered through that coverage source. Although the questions are asked differently from in Round 1, the same type of information is collected to identify individuals who are covered and the length of their coverage.

### **Post data collection data processing**

The MEPS estimates of insurance coverage generally reflect respondents' reports of coverage. The only assignment of coverage that occurs in post data collection processing is assigning Medicare coverage to respondents who are age 65 or older who:

- Answered "Yes" to a follow-up question on whether they received Social Security benefits;  
or
- Were covered by Medicaid/CHIP, other public hospital/physician coverage or Medigap coverage; or
- Their spouse was age 65 or older and covered by Medicare; or
- They reported TRICARE coverage.

The other logical edit that is made is reassigning individuals who reported other government coverage to Medicaid/CHIP coverage if they reported that they paid nothing for their other public hospital/physician insurance when such coverage was through a Medicaid HMO or the coverage was reported to include some other managed care characteristics.

## **Description of Health Insurance Questions in the NHIS**

In the Family Health Insurance section of the NHIS Family Core (FHI), a family respondent answers questions about all family members. However, individual members present can also respond to the questions. Although the questions are asked on the Family Core component of the questionnaire, health insurance coverage status is collected for each family member. The flow of the questions pertaining to health insurance programs in this section has been similar since 1997. The FHI core section includes questions on the following types of coverage: Medicare, Medicaid, CHIP, military (TRICARE, VA, CHAMP-VA), other state-sponsored health plans, Indian Health Service, other government programs, private insurance, and single service plans. State-specific program names are used when asking about Medicaid and CHIP. The FHI core section collects information on the characteristics of private insurance, including the covered individuals' relationships to the policyholder, coverage of individuals outside the household, and information on how private plans were obtained. The FHI section begins by asking an overall question of whether anyone in the family has health insurance coverage. If there is a positive response to this initial question, then the types of coverage are collected for each family member. The types include "no coverage of any type," in cases where one or more family members are uninsured but others are not. The questions about types of coverage are followed by detailed questions about each coverage type collected on a person basis, with an exception of detailed questions about private plans, which are asked by plan, for up to four plans per family. If there is a negative response to the initial overall question, then all family members are marked as not having health insurance coverage, and the appropriate follow-up questions for those who lack coverage are asked.

## **Health insurance probe and verification questions on the NHIS**

In mid-2004, two questions were added to the NHIS to improve the collection of Medicare and Medicaid coverage. A Medicare probe question was asked of persons aged 65 and over who had not indicated that they had Medicare. Another question was asked of persons under age 65 who had not indicated any type of coverage and specifically asked if they were covered by Medicaid. Based on an analysis using the 2005 NHIS, estimates for uninsured persons based on not using the Medicare or Medicaid probe question were all greater than or equal to those based on uninsured estimates using the probe questions [5]. However, the differences for adults aged 18-64 were not statistically significant. Among poor children, there was an appreciable decrease in the uninsured estimate from 16.3 percent to 13.3 percent using the Medicaid probe question. There was an observed but statistically insignificant increase in the rate of Medicaid coverage for children and for adults 18-64 years of age with the use of the Medicaid probe. The increase in Medicaid rates among children and adults aged 18-64 is primarily due to an increase in rates among persons who are poor and near poor. However, the differences were not statistically significant in either case. For 2005, Medicare rates among persons 65 years of age and over increased from 87.1 percent to 95.4 percent with the addition of the Medicare probe question. These results indicated that the NHIS Medicare and Medicaid probe questions moved the estimates in the anticipated direction, although the differences in the uninsured were not statistically significant for persons under 65 years of age.

In addition to the Medicare and Medicaid probe questions, the NHIS also has a question that verifies single service coverage that is asked of all persons for those who have not indicated single service coverage. Coverage or non-coverage is verified for all persons on the survey prior to collection of detailed information about public coverage and private plans.

## Measurement of Marketplace Coverage

The NHIS, CPS, and MEPS all added questions related to marketplace coverage in 2014. The type of questions and the wording used were similar across the surveys. Since the NHIS was the only federal survey to provide 2014 marketplace estimates at the time of the writing of this report, the following provides detail on the NHIS questions and a description of how they were edited.

### **NHIS marketplace estimates**

The core questions in the health insurance section of the NHIS have remained largely unchanged since 1997, including questions that collect insurance plan names. In 2014, in response to the Affordable Care Act of 2010 (P.L. 111-148, P.L. 111-152) (ACA), several new questions were added to the FHI section to capture health care coverage obtained through the federal or state-based health insurance marketplaces. These new questions were asked for persons covered by public plans (Medicaid, CHIP, state-sponsored health plans, and other government programs) as well as for those on private health insurance. This acknowledges that some respondents perceive marketplace coverage as a public program and others perceive marketplace coverage as private health insurance. For persons who indicate Medicaid, CHIP, state-sponsored health plans, or other government programs, respondents were asked if they obtained this coverage through HealthCare.gov, the Health Insurance Marketplace, or the name of their state's marketplace. This was followed by a question that asked if there was a premium or enrollment fee associated with the plan. If this was the case, the respondents were asked if this premium was based on income. For persons covered by private insurance plans that were not employment-based, respondents were asked if the plan was obtained through HealthCare.gov, the Health Insurance Marketplace, or the name of their state's marketplace. For those who pay a premium for their private health insurance plan, a question was added in



Quarter 4 of 2013 to ascertain whether that premium was based on income. The premium question was asked for both employment-based and non-employment-based plans.

In general, if a family member was reported to have coverage through the federal or state-based health insurance marketplaces, then that reported coverage is considered accurate unless there is some other information that clearly contradicts that report. Similarly, if a family member was not reported to have coverage through the federal or state-based health insurance marketplaces, then that is considered accurate unless there is some other information that clearly contradicts that report.

The NHIS considers individuals reporting private coverage as having marketplace-based coverage if they are reported to have a private, non-employment-based, directly purchased plan and the plan name provided is a) a marketplace plan name, or b) a marketplace portal name (e.g., HealthCare.gov, kynect in Kentucky), or c) they have provided a marketplace company name and the respondent indicated that the plan is through the federal or state-based health insurance marketplaces, or d) the plan name was unknown or refused and the respondent indicated that the plan was obtained through the federal or state-based health insurance marketplaces. Providing a marketplace plan name or a marketplace portal name is weighed heavily in the decision to classify a person as having marketplace-based coverage. Persons with employment-based coverage were not considered to have marketplace coverage unless a very specific marketplace plan name was provided.

When a state-sponsored health plan or another government program is reported, the person is classified as having marketplace-based coverage if the plan name provided is a) a marketplace plan name, or b) a marketplace portal name (e.g., HealthCare.gov, Covered California), or c) a marketplace company name and the respondent has indicated that the plan was through the federal

or state-based health insurance marketplaces, or d) the plan name was unknown or refused and the respondent indicated that the plan was obtained through the federal or state-based health insurance marketplaces and they had a premium associated with the plan. The source of coverage would be changed from public to private. As noted above, providing a marketplace plan name or a marketplace portal name is weighed heavily in the decision to classify a person as having marketplace-based coverage.

All individuals who are classified as having marketplace-based coverage are considered to have private health insurance, regardless of whether they were reported to have obtained the coverage from a private or public source.

#### **Post data collection processing of data**

A feature that distinguishes the NHIS estimates of health insurance coverage from other survey-based estimates is the use of responses to follow-up questions to evaluate the reliability of the reported health insurance coverage and to adjudicate conflicting information. For many survey respondents, health insurance is a complex topic, and some inconsistencies in survey responses are expected. If the follow-up questions clearly suggest that the original responses were incorrect, the original responses are edited. As a result, a portion of the sample is reassigned to a different type of coverage or reclassified from insured to uninsured (or vice versa).

The evaluation and editing procedures involve a number of distinct operations, but there are several main components. The first is a series of automated edits based on string searches of the private plan names. If a reported name includes wording that indicates that it is a single service plan, the plan's classification will be changed from a comprehensive health insurance plan to a single service plan. Examples include stand-alone dental, vision, and prescription drug plans.

Later, detailed manual coding of the plan names provided by respondents who indicated coverage from a private source or selected public sources (including Medicare, Medicaid, and military coverage) can sometimes identify additional cases for which the reported coverage type is not accurate. For example, if a respondent stated that he or she has a private comprehensive plan and provided the name of the plan as “Medicaid,” the person would be coded as having Medicaid coverage rather than private coverage.

Another main component of the evaluation and editing process is the use of manual edits based on follow-up questions for respondents who report no coverage at all. Respondents who reported one or more family members to be without coverage were later asked how long each such member has been without coverage and the reasons why the family member either stopped being covered or does not have health insurance. In a few instances, the respondent indicated that the subject actually does have coverage and, with or without prompting, provided the source of such coverage. Interviewers enter this information into a text field, and this information is used to assign coverage and the appropriate coverage type. This results in a small fraction of those who were originally classified as uninsured being assigned a type of coverage.

### **Other differences relevant for analyses of the Affordable Care Act**

The MEPS, NHIS, and CPS all ask whether the individuals purchased health insurance through an insurance marketplace. Further, NHIS, MEPS and CPS ask whether individuals receive subsidized premiums based on their income. In contrast, the ACS does not ask questions about the insurance marketplaces or premium subsidies. Additionally, the CPS and NHIS ask whether an individual’s coverage is through a parent if it is obtained from someone outside the household. MEPS identifies if coverage is from a parent only if the child is living in the same household as the parent (or is a

student living away from home). Knowing if an individual obtains coverage through a parent can be important for analyzing the impact of the ACA provision allowing children to stay on a parent's insurance until age 26.

The surveys differ in how they capture information on income for young adults who are students living away from home. MEPS and CPS include the student's family income when estimating the student's poverty status. The ACS and the NHIS only include the student's income and the NSDUH doesn't calculate a poverty status for students living away from home. This is an important factor to keep in mind for analyses of young adult's access to subsidized coverage from the marketplace as well as eligibility for Medicaid.

### **Classification of employer-sponsored insurance and non-group insurance**

For the purpose of this report, the MEPS and NHIS estimates of ESI coverage are classified using a similar methodology. The MEPS classified coverage as ESI if it was reported to be from an employer or union or was reported to be obtained through "someone outside of the household". Coverage that was reported to be private coverage but from an unknown source was considered to be non-group coverage. The NHIS classified coverage as ESI if the coverage was reported to be from an employer or union or was from some other source and the respondent indicated in a follow-up question that the source was a parent or other relative. If the coverage source was unknown, then the coverage was considered to be non-group insurance. Note that this is not the typical classification used in the NHIS. Typically, NHIS excludes from the analysis those for whom source of coverage was not indicated. Since the CPS identifies the ultimate source of coverage (employer/union or non-group coverage) when the policyholder is reported to be outside of the household and there are no unknown values for the type of coverage due to imputation there was no need to make these types of determinations.

In order to determine if the classification of “outside of the household” coverage as ESI was accurate, the CPS provided estimates on the source of coverage for those obtaining coverage outside the household. In 2013, roughly 90 percent of coverage outside the household was reported to be from an employer. As a result, any misclassification from combining “outside of household coverage” with ESI coverage is small. In 2013, only 2.3 percent of the non-elderly population had coverage obtained from “someone outside of the household”. The CPS estimates imply that the MEPS estimate of ESI coverage for the non-elderly population (57.7 percent in 2013) may have overestimated the percentage of the population with ESI by only 0.23 percentage points.

**Question 2: What previous reviews and analyses in these areas have been completed or are underway?**

All four of the major surveys—ACS, CPS, MEPS, and NHIS—produce estimates of insurance coverage among the U.S. civilian non-institutionalized population. However, the surveys differ in their methods for asking about household members’ insurance status, in their survey design, and in questionnaire wording (e.g., insurance status for a full calendar year compared to insurance status at the survey’s interview date). Even when questions concerning insurance status are worded similarly, survey design and other differences can result in differences in insurance estimates.

Previous analyses have compared estimates from these four surveys to each other as well as to administrative data. These analyses are described below.

**1999 ASPE report**

A 1999 ASPE report focused on comparisons of the percentage of the population that was uninsured during a full year (generally in the late 1990s) for four federal surveys (CPS, MEPS, NHIS, and the Survey of Income and Program Participation [SIPP]), plus two private sector

surveys, the National Survey of Americas Families (NSAF) and Community Tracking Survey (CTS) [6]. Estimates of the percentage without insurance were generally comparable across the surveys. The primary exception was the CPS, which had much higher counts for the number of individuals uninsured for the entire year. The CPS full-year estimates were much closer to the current estimates of the other surveys. Some researchers suggested that CPS participants may have been reporting their current coverage when they answered the insurance questions [7-9]. However, the evidence for this hypothesis is mixed [7, 9].

### **Cohen, Makuc, and Ezzati-Rice article**

In this article, researchers at AHRQ and NCHS compared 24-month coverage estimates using a linked NHIS-MEPS file and a MEPS 24-month file [10]. The linked file included the subset of 2002 NHIS participants who were sampled for MEPS for the following year. MEPS sampled NHIS participants from Quarters 1-3, which results in a 3- to 11-month gap of information on coverage status. The reason for the gap is that NHIS asks about coverage relative to the interview date whereas MEPS asks about coverage relative to the calendar year. The MEPS 24-month file included MEPS participants from 2002 and 2003. In contrast to the linked file, the MEPS 24-month file had continuous coverage information from January 2002 to December 2003. The authors found that the MEPS longitudinal estimate of the percentage continuously uninsured was higher than the NHIS-MEPS linked estimate whereas the MEPS longitudinal estimate of the discontinuously insured was lower than that derived from the NHIS-MEPS linked data. These results were in the expected direction since the linked file covered a wider range of dates. Over a longer time period, changes in coverage are more likely. The other major finding was that characteristics associated with 24-month coverage categories were highly concordant between the two sources.

### **2007 SHADAC report**

A 2007 SHADAC report also found that the CPS results differed substantially from those from the MEPS and NHIS [11]. For example, the 2002 CPS full-year estimate of the percentage of the non-elderly population (aged 0 to 64) that was uninsured was 7.3 percentage points higher than the 2002 NHIS full-year estimate and 4.5 percentage points higher than the 2002 MEPS full-year estimate. While the CPS full-year insurance estimates matched well to the MEPS current estimates (derived from insurance status at a randomly chosen month), they did not match as well with the NHIS uninsured estimates at the NHIS interview date. The authors hypothesized that the discrepancy between the MEPS and NHIS estimates were due to differences in survey design and measurement. Specifically, the authors suggested the shorter recall period of MEPS for full-year estimates when compared to the longer recall for such estimates from NHIS and the fact that MEPS full-year estimates are based on the calendar year while NHIS estimates are based on the year prior to the interview date as explanations. Additionally, the report discussed alternative explanations for the CPS results, such as recall bias.

### **2010 National Research Council Workshop summary report**

A 2010 National Research Council workshop compared estimates for 2008 from the ACS (current estimates) with those from the CPS (full-year estimates) and those from NHIS (current estimates) to benchmark the ACS in the first year it asked about insurance coverage [12]. Although the ACS/CPS comparison showed a statistically significant difference in the percentage uninsured, the two estimates were close (15.1 percent in ACS and 15.4 percent in CPS). Considering differences in estimates that were greater than one percentage point, the only difference in coverage type of that size was for coverage purchased on the non-group market (14.2 percent in ACS vs. 8.9 percent in CPS) [12].

For the ACS/NHIS comparison, the uninsured percentages were comparable (15.1 percent in ACS and 14.8 percent in NHIS) and the difference was statistically insignificant. The differences in coverage type that were greater than one percentage point between the ACS and NHIS were in employer-sponsored insurance (58.5 percent in ACS and 56.3 percent in NHIS) and coverage obtained in the non-group market (14.2 percent in ACS and 6.6 percent in NHIS). The large ACS/NHIS and ACS/CPS discrepancies in non-group coverage suggest that the ACS was categorizing this coverage type differently than the other two surveys. However, the comparable results for the percentage uninsured suggest that the surveys performed similarly in classifying individuals as having some form of coverage.

### **SNACC report**

The Medicaid Undercount Project (SNACC)<sup>1</sup> released a series of reports from 2007-2010 comparing Medicaid enrollment figures from survey data with enrollment figures from administrative claims records to analyze the extent to which survey data undercounted Medicaid enrollment. The SNACC report compared data from CPS, NHIS, and MEPS to data from the Medicaid Statistical Information System (MSIS), a database containing Medicaid enrollment and claims records that State Medicaid programs submit to CMS on a quarterly basis [13]. It is important to note that match rates with administrative records were low and administrative data are not necessarily a gold standard when interpreting the results. The analysis found that the Medicaid undercount in the CPS ranged from 31-38 percent between 2000-2005 [14]. The MEPS

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<sup>1</sup> SNACC stands for the initial letters of the organizations involved: State Health Access Data Assistance Center, National Center for Health Statistics, Office of the Assistant Secretary for Policy and Evaluation, U.S. Bureau of the Census, and The Centers for Medicare and Medicaid Services.



undercount was 17.5 percent in 2003. Additionally, reporting accuracy improved in later rounds in the MEPS for the same individual [15]. The undercount in NHIS was 27.3 percent in 2001 and 21.7 percent in 2002 [16]. For all three surveys, the Medicaid undercount was driven by inaccurate reporting from survey participants rather than other potential sources of error, such as incorrect imputation of insurance status. The characteristics associated with respondents failing to identify Medicaid coverage included higher income, not receiving medical services, having some form of private coverage and having a shorter period of Medicaid coverage [14-16].

The previous results, and changes to surveys over time, highlight the need to compare the surveys in terms of their coverage estimates, survey questions, and methodology. However, past research may not apply to the current versions of the surveys, particularly with respect to the CPS which redesigned its health insurance questions in 2013 and to the NHIS which added a Medicaid probe in 2004 for those respondents who had not reported coverage at that point in the survey.

Therefore, it is important to compare estimates from the most recent versions of the surveys.

## **Comparison of Estimates from the Core Health Insurance Surveys:**

### **Question 3: How should we go about understanding differences among the surveys, questions, measures, and estimates?**

Since current or point-in-time coverage estimates and full-year coverage estimates are not directly comparable, this section compares estimates from each survey by type of estimate. Specifically, this section provides a comparison of current, or point-in-time, estimates of insurance coverage from the ACS, MEPS and NHIS and comparisons of full-year insurance status estimates from the MEPS and CPS with full-year uninsured estimates from NHIS. For both current (point-in-time) and full-year estimates, we report coverage and sources of coverage by age group, category of family income, and race and ethnicity.

The estimates for the ACS and for NHIS are for an average of coverage reported at the interview date for interviews that take place throughout the calendar year. The MEPS estimates are an average of monthly estimates of insurance status that represent the percentage of the population with coverage from a particular source for at least one day in a month and estimates of the percentage of the population that is uninsured for an entire month. The MEPS and the ACS/NHIS estimates differ in the timing of the estimates themselves but also by the possibility of recall bias, since insurance coverage in the MEPS is reported for the interview date as well as the months prior to the interview date (from 1 to 6 months depending on the interview date) while the NHIS and ACS estimates are reported for the interview date.

The full-year estimates from the MEPS and CPS are similar in the time period that they represent. Both survey estimates are for coverage from a particular source, private or public, at any point

during calendar year 2013 and for lack of coverage for the entire calendar year. The surveys differ, however, in their questionnaire design and also in degree of recall bias. The CPS asks about monthly coverage in the calendar year preceding the February through April CPS interview dates. The MEPS asks about monthly coverage during two interviews during the calendar year and a third interview in the following calendar year. The NHIS full-year estimate might also be affected by recall bias since it asks respondents how long (relative to the interview date) it has been since they last had health care coverage with possible responses of 6 months or less, more than 6 months but not more than a year ago, more than one year but not more than 3 years, more than three years, or never had insurance.

### **Point-in-Time Estimates: Non-Elderly Population (Under Age 65)**

As shown in Table 2a, the MEPS estimate of the percentage of the non-elderly population that was uninsured (19.5 percent) was 2.8 percentage points higher than the NHIS estimate (16.7 percent) or ACS estimate (16.7 percent) in 2013. In contrast to the NHIS and ACS, MEPS does not count VA coverage as a source of comprehensive coverage. If VA only coverage was taken into account, the difference between MEPS and NHIS would be 2.4 percentage points. (VA only coverage was not available from the ACS for the non-elderly population.) Although NHIS and ACS had the same rates of uninsurance (16.7 percent), sources of coverage appear quite different. ACS had a 2.2 percentage point higher rate of private insurance and a 1.8 percentage point lower rate of public coverage when compared to NHIS. The 2.2 percentage point higher rate of private insurance in ACS compared to NHIS was due to both a 1.1 percentage point higher rate of employer-sponsored insurance (ESI) and a 1.1 percentage point higher rate of non-group coverage. In 2013, the ACS showed that 6.9 percent of the non-elderly population had non-group coverage compared with 5.8 percent in NHIS. However, it is interesting to note that this pattern differs from that shown in 2014

(Table 5a) where the ACS showed a rate of 8.1 percent for non-group coverage compared to 8.4 percent in NHIS ( $p < 0.10$ ).

The lower rate of uninsurance in ACS compared to MEPS appears to be due to a 2.5 percentage point higher rate of private coverage in ACS. This higher rate of private coverage was due to a higher rate of non-group coverage in the ACS compared to the MEPS (6.9 percent vs. 3.8 percent). The rates of ESI coverage in both surveys were similar (57.1 percent in ACS and 57.7 percent in MEPS). The private coverage rate in MEPS (61.5 percent) was nearly identical to that in NHIS (61.8 percent). However MEPS showed a lower rate of non-group coverage than NHIS (3.8 percent vs. 5.8 percent) and a higher rate of ESI coverage ( $p < 0.10$ ). Since the rates of private coverage were so similar in the MEPS and NHIS, the difference in the uninsurance rate appears to be due to an estimated 1.0 percentage point lower rate of Medicaid coverage (the difference was not statistically significant) and a 1.1 percentage point lower rate of coverage from other public insurance in MEPS, which includes coverage through Medicare, TRICARE, and other state-sponsored health insurance programs. The MEPS Medicaid estimate was identical to that in ACS (16.6 percent).

In 2013, the 1.0 percentage point higher Medicaid coverage rate in NHIS compared to MEPS may be attributable to the specific probe for Medicaid coverage that is asked of all respondents under age 65 years initially reporting no insurance coverage in NHIS. Since the percentage of non-elderly adults with Medicare was similar in the two surveys (data not shown), the 1.1 percentage points difference in “other coverage” was due to a 0.6 percentage point difference in TRICARE coverage for the entire non-elderly population (data also not shown) with the remainder mainly due to a difference in other state-sponsored health insurance programs.

## **Estimates for Children (Aged 0-17 Years)**

In 2013, the percentage of children aged 0-17 years that were estimated to be uninsured in the ACS (7.1 percent) was between the estimates for the NHIS (6.6 percent) and the MEPS (8.2 percent). The 0.5 percentage point difference between the ACS and NHIS was statistically significant. Although this difference may be considered small, as with the non-elderly population as a whole, differences in the composition of insurance sources were greater than the difference in uninsurance, with the ACS suggesting a substantially higher percentage with private insurance and a lower percentage with public coverage. The higher rate of private coverage in the ACS was due to higher rates of both ESI (50.6 percent in ACS vs. 48.9 percent in NHIS) and non-group private insurance (5.5 percent in ACS vs. 4.3 percent in NHIS).

The NHIS estimates implied a 1.6 percentage point lower rate of uninsurance for children when compared to the MEPS. In examining the sources of coverage in the two surveys, the percentage of children with Medicaid was lower in the MEPS (36.6 percent) than in the NHIS (37.7 percent), although the difference was not statistically different. The NHIS also had a 1.3 percentage point higher rate of “other public coverage” when compared to the MEPS. Although the data are not shown in Table 2a, there was a statistically significant difference in the percentage of children with TRICARE coverage (2.1 percent in the NHIS and 0.9 percent in the MEPS) that may explain the difference in “other public coverage” between the two surveys.

There were no statistically significant differences in the percentage of children with private coverage overall in the MEPS compared with the NHIS, although the point estimates were higher in the MEPS than in the NHIS (54.0 percent vs. 53.2 percent). In contrast, the NHIS estimates of non-

group coverage for children were higher than those for the MEPS (4.3 percent vs. 2.6 percent) and the estimates of ESI were lower (48.9 percent in NHIS vs. 51.4 percent in MEPS,  $p < 0.10$ ).

### **Estimates for Non-Elderly Adults (Aged 18–64)**

In 2013, the percentage of adults aged 18-64 who were uninsured was 20.3 percent according to the ACS, 20.5 percent in the NHIS, and 23.8 percent in the MEPS. The difference in the uninsured rate between the MEPS and the ACS again appears to be due, in part, to higher estimated rates of private insurance in the ACS (66.9 percent) when compared to the MEPS (64.4 percent). While the rates for employer-sponsored private insurance were similar in the two surveys (59.5 percent in ACS and 60.1 percent in MEPS), the ACS had higher rates of non-group coverage than the MEPS (7.4 percent vs. 4.3 percent). The MEPS also had a lower rate of Medicaid coverage (9.0 percent) than the ACS (9.8 percent), while rates of other public coverage in the MEPS and the ACS were similar (2.8 percent and 3.0 percent, respectively).

Uninsured rates for adults aged 18-64 in the MEPS (23.8 percent) and the NHIS (20.5 percent) differed by 3.3 percentage points. After accounting for 0.6 percentage points for adults with VA coverage only, the remaining difference was 2.7 percentage points. The overall difference was due to differences in three sources of coverage: a 0.7 percentage point difference in private insurance (65.1 percent in the NHIS vs. 64.4 percent in the MEPS, not statistically significant), a 1.0 percentage point difference in Medicaid (10.0 percent in the NHIS vs. 9.0 percent in the MEPS) and a 1.1 percentage point difference in “other public coverage” (3.9 percent in the NHIS vs. 2.8 percent in the MEPS). Since rates of Medicare only coverage were similar in the MEPS (1.6 percent) and the NHIS (1.7 percent), the difference in “other public coverage” is due to differences in coverage

from TRICARE (1.5 percent in the NHIS and 1.0 percent in the MEPS) and other state-sponsored programs (data not shown in tables).

Overall rates of private coverage for non-elderly adults were not significantly different in the NHIS and MEPS and the difference was not large (65.1 percent in the NHIS vs. 64.4 percent in the MEPS) but this was due to offsetting differences in rates of ESI and non-group coverage. Rates of private non-group coverage were two percentage points higher in the NHIS than in the MEPS (6.3 percent vs. 4.3 percent), but rates of ESI coverage were 1.4 percentage points higher in the MEPS than in the NHIS (although the difference was not statistically significant).

### **Estimates for Adults (Aged 65 Years and Over)**

In 2013, the percent uninsured among those aged 65 years and over was very small (about 1 percent or less) in all three surveys. However, estimates of the percent of adults aged 65 years and over who had Medicare with no source of supplemental coverage (either private or public) were quite different: 25.7 percent in ACS, 35.9 percent in NHIS, and 41.5 percent in MEPS. The estimated lower rate of “Medicare only” for the ACS compared to both other surveys appeared to be related to higher estimates of private coverage in the ACS. The difference between the ACS and NHIS appeared to be mostly due to a 9.3 percentage point higher estimated rate of coverage of employer (or former employer) sponsored coverage in the ACS. The difference between the ACS and MEPS appeared to be due to higher rates of both employer-sponsored and other private insurance in the ACS. MEPS estimates also showed about 44.2 percent of the elderly having private insurance, about 6.2 percentage points lower than in NHIS. In further analyses of NHIS data, (shown in Table 2d), NHIS estimates were re-calculated by de-duplicating reports of private coverage and Medicare

Advantage plans. Individuals were assigned to having Medicare Advantage when there was a report of both a Medicare Advantage plan and a private plan, or a private plan was paid for by Medicare. After this re-calculation NHIS and MEPS estimates were close (43.6 percent in NHIS vs. 44.2 percent in MEPS). MEPS estimates for private coverage at any point during the year for calendar year 2011 were also close to MCBS estimates for 2011 (the latest year available), when the populations were aligned on individuals who ever had Medicare during the year (49.3 percent in MEPS and 48.2 percent in MCBS) (data not shown).

### **Estimates by Poverty Status**

Although federal surveys are often used to report insurance coverage by poverty status, it is difficult to compare estimates of insurance coverage from the NHIS by poverty status to those of other surveys because of differences in how income is categorized. The MEPS includes parents' income for full-time students living away from home while the NHIS and the ACS do not. However, comparison of insurance coverage for subsets of the population by poverty status, such as children, should be less problematic. Therefore, the discussion of health insurance coverage by poverty status has been limited to children.

In 2013, estimates of the fraction of children aged 0-17 years under the poverty line who were uninsured were not significantly different among the three surveys, differing by only 0.4 percentage points between the MEPS and NHIS, 0.7 percentage points between the NHIS and ACS, and 1.1 percentage points between the ACS and MEPS (Table 2b). Differences in sources of coverage for children under the poverty line were also not significantly different between the MEPS and NHIS, though the MEPS implied a one percentage point higher rate of coverage through Medicaid.



Compared to both the NHIS and MEPS, the ACS showed a more than 5 percentage point higher rate of private coverage for children under the poverty line, as well as a lower rate of Medicaid coverage. The higher rate of private coverage appeared to come from both employer-sponsored and non-group coverage.

The estimated rate of uninsurance for children in families with income between one and two times the federal poverty level was also not statistically significantly different for the three surveys. However, there were differences in the sources of coverage between the ACS and both the NHIS and MEPS. The ACS had higher rates of private coverage and lower rates of Medicaid/CHIP coverage than both NHIS and MEPS. With respect to sources of private insurance, the ACS had higher rates of ESI and non-group coverage than the NHIS and higher rates of non-group coverage than the MEPS.

While uninsurance rates for the three surveys were similar for children between one and two times the federal poverty level, the rates were somewhat different for children in families with income at least twice the federal poverty level. In this income range, the estimated percentage uninsured was closest for the NHIS and ACS—4.2 percent and 4.9 percent, respectively. The MEPS estimate of the percentage of uninsured children was 7.0 percent. While the rates of private coverage in the ACS and NHIS were similar, the ACS had a somewhat higher rate of non-group coverage than the NHIS (7.0 percent vs. 6.2 percent). In contrast, the ACS, had a lower rate of “other public coverage” than the NHIS (2.2 percent vs. 3.1 percent). The MEPS had a lower rate of private coverage than both the NHIS and ACS for children in this income range, due to a lower rate of non-group coverage. The rate of ESI coverage in the MEPS was higher than in the ACS and NHIS, but the differences were not statistically significant. The MEPS also showed a lower rate for “other

public coverage” for children in this income category when compared to the ACS and NHIS. In further analyses of the MEPS and NHIS (data not shown), the difference in the two surveys’ estimates was due to higher rates of TRICARE coverage for children in NHIS (2.8 percent) compared to MEPS (1.4 percent). While the MEPS estimates for Medicaid/CHIP were slightly higher than those in the ACS and NHIS, the differences were not statistically significant.

### **Estimates by Race and Ethnicity for Adults (Aged 18-64)**

As noted above, in 2013 the uninsured rates for adults aged 18-64 were similar for the ACS and the NHIS and both were significantly lower than the rate reported in the MEPS. The similarities between the uninsured rates in the ACS and NHIS were generally true for white, black and Hispanic adults, with higher private coverage rates in the ACS compared to the NHIS that offset lower rates of other public coverage (Table 2c).

The MEPS uninsured rates were higher than those in the ACS and NHIS for adults in each race and ethnic category. The difference with the ACS estimates for Hispanic adults was mainly due to differences in rates of ESI and non-group coverage. For black adults the difference was due to lower rates of non-group coverage and a difference in ESI that was not statistically significant (48.2 percent in MEPS vs. 49.6 percent in ACS). For white adults the difference was due to lower rates of non-group coverage and Medicaid/CHIP.

The differences between the MEPS and NHIS estimates varied for adults in different race and ethnic categories but a consistent factor was that rates of non-group coverage were lower in the MEPS than in NHIS ( $p < 0.10$  for Hispanic adults). However, overall rates of private coverage were not statistically different between the NHIS and MEPS for any race and ethnic category.

## **Estimates of Marketplace Coverage in 2014 and 2015 from the NHIS**

As of the time of writing this report, the NHIS was the only federal survey to report estimates of marketplace coverage in 2014. The estimates show that in 2014, 2.2 percent of persons under age 65 were covered by private health insurance obtained through the federal or state-based health insurance marketplaces at the time of interview between January and December 2014. The proportion with marketplace coverage increased from 1.4 percent in the first quarter of 2014 (January-March) to 2.5 percent in the fourth quarter of 2014 (October-December) [17]. In 2014, adults aged 18-64 were more likely to have marketplace coverage than children aged 0-17 years (2.6 percent vs. 0.9 percent). Adults aged 18-64 who were between 100 percent and 199 percent of the federal poverty level (FPL) were almost twice as likely to have marketplace plans than those who were below the FPL or those who were 200 percent and above the FPL. Asian adults aged 18-64 were the most likely to have marketplace coverage.

Based on preliminary NHIS microdata from the first 6 months of 2015, among persons under age 65, 3.8 percent were covered by marketplace plans [18]. A significant increase was noted in the percentage of persons under age 65 covered by marketplace plans from 2.5 percent in the last quarter of 2014 (October-December) to 4.0 percent through the second quarter of 2015 (April-June). Additional quarterly estimates of marketplace coverage from the NHIS for both 2014 and 2015 are also available [19].

### **Full-Year Insurance Estimates**

Table 3a contains estimates of full-year insurance status from the CPS and the MEPS for the 2013 calendar year. Note that the CPS and MEPS have a consistent treatment of poverty status for young

adult students living away from home in that the income and family size of the student's family and not just that of the student is taken into account in both surveys. Further, note that when comparing the MEPS and CPS estimates, the CPS, but not the MEPS, counts VA coverage as a source of coverage in the estimate of the percentage of the population that was insured. However, the percentage of the population with VA coverage only was not identified in these estimates.

In 2013, the percentage of the entire U.S. civilian non-institutionalized population with no insurance for a full year was not significantly different between the CPS (13.4 percent) and the MEPS (12.8 percent). Both estimates were lower than the current estimates in the ACS (14.5 percent), MEPS (16.8 percent) and NHIS (14.5 percent). While there was no significant difference in the 2013 full-year uninsurance rates in the CPS and MEPS, there were differences in the sources of coverage. The CPS estimates implied a higher rate of private coverage (by 1.9 percentage points), and a lower rate of public coverage (by 2.3 percentage points) compared to the MEPS estimates. The higher rate of private coverage in the CPS was due to a higher rate of non-group coverage. The MEPS estimate of ESI coverage was higher than in the CPS, but the difference was not statistically significant.

Among the non-elderly population, only the percentage of full-year uninsured for those under age 18 was significantly different between the CPS and MEPS (i.e., 4.8 percent for the MEPS and 7.3 percent for the CPS). This difference appeared to be due to an estimated 7.4 percentage point lower rate of Medicaid coverage and a nearly 4 percentage point higher rate of private coverage in the CPS when compared to the MEPS. Rates of both ESI and non-group coverage were higher in the CPS than the MEPS, but the difference was only statistically significant for non-group coverage. While the expectation was that the full-year 2013 estimates for children from the CPS and MEPS should be lower than the current estimates for children from the ACS, NHIS and MEPS, this was only true for

the MEPS full-year estimate (4.8 percent compared to 7.1 percent, 6.6 percent, and 8.2 percent from the ACS, NHIS, and MEPS, respectively). The CPS full-year estimate for children was not lower than the current uninsured estimates from the NHIS or ACS.

In 2013, the uninsured rates for adults aged 18 to 64 were not significantly different in the CPS (18.4 percent) and MEPS (18.8 percent). However, the estimates of the percentage of non-elderly adults with employment sponsored coverage and non-group coverage and with different types of public coverage were different. The rate of any private coverage was similar in the two surveys due to offsetting differences in ESI and non-group coverage. The CPS had a lower rate of ESI coverage than the MEPS (61.7 percent in the CPS and 63.8 percent in the MEPS) and a higher rate of non-group coverage (6.3 percent in the CPS and 4.2 percent in the MEPS). The percentage of non-elderly adults with Medicaid was higher in the MEPS (10.6 percent ) than the CPS (9.4 percent) but the opposite was true for other (public) coverage (4.1 percent in the CPS vs. 2.6 percent in the MEPS).

“Full-year” estimates for 2013 from the NHIS were only provided for the percentage of the population that was uninsured and not for the availability of different sources of coverage during the year. During the NHIS interview, uninsured respondents are asked how long they lacked health insurance coverage, and full-year estimates consist of those who were uninsured for more than a year relative to the NHIS interview date. Estimates of the percentage of the entire U.S. civilian non-institutionalized population that lacked insurance for the full year were significantly lower in the NHIS (10.7 percent) (estimate not shown) than in either the MEPS (12.8 percent) or CPS (13.4 percent). This pattern also held for those under age 65 (12.4 percent in the NHIS vs. 15.0 percent and 15.3 percent in the MEPS and CPS, respectively), those under 18 years (3.6 percent vs. 4.8 percent and 7.3 percent, respectively), and those aged 18 to 64 years (15.7 percent vs. 18.8 percent

and 18.4 percent, respectively). This was expected since a smaller fraction of the population would be uninsured for more than a year than for a full calendar year since the full-year uninsured estimates for a period of 1 calendar year include those uninsured for only 1 calendar year as well as those uninsured for 1 year or more.

### **Full-Year Estimates by Poverty Status**

In 2013, the MEPS and CPS full-year estimates of the uninsured were significantly different for non-elderly individuals under the poverty level (26.9 percent in the CPS vs. 24.3 percent in the MEPS) (Table 3b). This difference was driven by the higher uninsured rate for children under the federal poverty line in the CPS (9.3 percent) compared to MEPS (3.7 percent). The percentage uninsured for non-elderly adults with incomes under the federal poverty line was similar in the CPS (36.7 percent) and MEPS (36.1 percent), but the percentage with various sources of coverage differed, with respondents to the CPS reporting more private coverage than in the MEPS (24.8 percent vs. 19.3 percent) and less Medicaid coverage (33.3 percent vs. 40.7 percent, respectively). Rates of ESI coverage and non-group coverage were both higher in the CPS than in the MEPS (17.6 percent vs. 15.1 percent for ESI and 7.2 percent vs. 4.2 percent for non-group coverage).

The uninsured rate for all non-elderly individuals with incomes between one and two times the federal poverty level was nearly identical in both surveys (25.0 percent in the CPS vs. 25.2 percent in the MEPS). However, this similarity masked differences by age group and differences in reported sources of coverage. For example, children in this income category interviewed in the CPS reported a higher uninsured rate than in the MEPS, but adults reported a lower rate ( $p < 0.10$ ). Also, for the overall non-elderly population, the similar uninsured rates in this income category reflected

offsetting differences in private and public coverage. For example, the CPS estimates of the rate of private coverage (specifically non-group coverage) and other public coverage were higher, while estimates of the rate of Medicaid coverage were lower than the MEPS estimates. These private/public differences mainly reflected patterns observed for children in this income category, with the exception that the rate of ESI coverage for children in the CPS was higher than that in the MEPS ( $p < 0.10$ ). For non-elderly adults, the CPS estimates implied a lower rate of ESI coverage ( $p < 0.10$ ) but a higher rate of non-group coverage, yielding no statistically significant difference in overall rates of private coverage. Non-elderly adults in the CPS also had a higher rate of other public coverage compared to the MEPS estimates (6.6 percent vs. 3.9 percent).

In 2013, the uninsured rate for all non-elderly individuals with incomes at least twice the federal poverty level was identical in the CPS and MEPS (9.9 percent) and there were no significant differences in the rates for children or non-elderly adults. With respect to sources of coverage, there was no significant difference between the two surveys in the percentage of the overall non-elderly population in this income category with any private insurance, but this is because the MEPS estimates suggested a higher percentage of individuals with ESI coverage (statistically significant for adults) and a lower percentage of individuals with non-group coverage (statistically significant for children) than the CPS estimates. The CPS also suggested a higher rate of other public coverage than the MEPS (3.1 percent vs. 1.8 percent). Children in this income category also had a lower rate of Medicaid/CHIP coverage in the CPS than in the MEPS (9.8 percent vs. 12.5 percent), but a higher rate of other public coverage (2.4 percent vs. 1.3 percent).

With respect to how differences in the estimates by poverty status contribute to differences in the overall estimates in the two surveys, the higher uninsured rate for children in the CPS compared to

the MEPS appeared to be driven by higher uninsured rates for children under two times the federal poverty level, since there was no significant difference in uninsured rates for children among those with incomes at least twice the federal poverty level. Note that the CPS/MEPS comparison yielded different findings from the NHIS/MEPS comparison, since the NHIS/MEPS comparison yielded similar uninsured estimates for children under twice the poverty level and different uninsured estimates for those with incomes at least twice the federal poverty level (full-year estimates for the NHIS are not shown).

### **Full-Year Estimates: Differences by Race and Ethnicity**

As shown in Table 3a, the CPS and MEPS estimates implied similar 2013 full-year uninsured rates for non-elderly adults. This similarity masked some differences by race and ethnicity (Table 3c). For example, the CPS estimates suggested a significantly lower full-year uninsured rate for Hispanic adults than the MEPS (33.2 percent vs. 39.0 percent) due to higher rates of private coverage in the CPS (49.8 percent) than in the MEPS (43.7 percent) and slightly higher rates of other public coverage (2.4 percent vs. 1.9 percent,  $p < 0.10$ ). Rates of both ESI and non-group coverage were higher in the CPS than the MEPS for Hispanic adults. There were no significant differences in full-year uninsured rates for white, black, and Asian adults between the two surveys, although there were some differences in reported sources of coverage. While there were no statistically significant differences in rates of private coverage between the two surveys, the CPS had lower estimates of ESI coverage for white and Asian adults ( $p < 0.10$  for Asian adults) but higher rates of non-group coverage. Also, estimates from the CPS generally implied lower Medicaid coverage rates and higher other public coverage rates compared to the MEPS, where differences were statistically significant (some at  $p < 0.10$ ). While the differences in the full-year uninsured rate for white, black and Asian



adults were not significantly different between the two surveys, the point estimates from the CPS were higher than those from the MEPS, which offset the lower uninsured rate for Hispanic adults in the CPS, yielding similar uninsured rates for all adults in the two surveys.

### **Trends in Current Uninsured Estimates (ACS, MEPS, and NHIS)**

Figures 1-3 and Appendix Table 1 show time trends in estimates of the percentage of the population that is uninsured at either the interview date (ACS, NHIS) or for a month (MEPS) where both types of estimates are averaged for each calendar year. The time trends are presented for 2008-2013 for estimates from the ACS and for 2000-2013 for estimates from the MEPS and NHIS and are shown for the entire population, for children aged 0-17 and for adults aged 18-64. As shown in the figures and tables, the ACS and NHIS estimates follow very similar patterns for the entire population, as well as for children and for adults. The MEPS estimates for children also exhibit a similar pattern to those from the NHIS for most of the time period, with the exception of the years 2007 and 2008, where the MEPS exhibited a temporary increase in the percentage of children that were uninsured. This increase was likely due to a methodological change in the MEPS in 2007, when a new CAPI instrument was introduced. It appears that there was a learning period for interviewers since estimates returned to previous trend lines in 2009. While the MEPS and NHIS/ACS time trends also appear to differ in recent years for adults, it is important to note that none of the year-to-year differences in the MEPS are statistically significant due to the smaller sample size of the MEPS compared to the other surveys. Comparisons of trends in the NHIS estimates for the percentage of the population uninsured for more than a year with trends in MEPS estimates for those uninsured for a full calendar year (shown in Figures 4-6 and Appendix Table 2) reveal similar patterns to comparisons of trends in the MEPS and NHIS current estimates.

#### **Question 4: What are the best ways to move ahead?**

The MEPS and NHIS both include information on a wide range of health topics, unlike the other federal surveys that collect information on health insurance coverage. Both surveys include a large section with questions on health insurance coverage. In both surveys, a family member may respond to the health insurance questions for all members of the family. The MEPS conducts logical edits on its insurance data and the NHIS edits coverage reported at the interview after comparing reported health plan names with a database of health plans. In the MEPS, insurance variables are constructed to indicate any coverage in each month of the calendar year based on a recall period of 4-6 months. The NHIS collects type of coverage at the time of interview, with interviews occurring throughout the year. Additionally, the NHIS collects length of time since last coverage for the uninsured and whether there was any time uninsured in the last year for the insured. The MEPS insurance section was primarily designed to measure health insurance status over the course of two consecutive calendar years to capture the dynamics of change in insurance status over that time period. The NHIS insurance section was primarily designed to provide cross-sectional estimates of health insurance coverage for the nation and for key population subgroups. The definition of the uninsured is essentially the same in the NHIS and MEPS, except the NHIS considers those with only coverage through the VA as covered while the MEPS does not. Persons without private coverage, Medicare, Medicaid, SCHIP, state-sponsored or other government-sponsored health plans or military plans are uninsured as are persons with only Indian Health Service or single service plans.

The MEPS has the capacity to produce estimates of the uninsured for multiple different periods within a year, for example, at any time during the year, throughout the first half of the year, an average of monthly estimates to derive an annual cross sectional estimate, and the entire year. The

MEPS also produces estimates of the U.S. civilian non-institutionalized population that was continuously uninsured for 2 consecutive years and up to 4 consecutive years. In a similar fashion, the NHIS produces estimates of the uninsured for three different time periods: at the time of the interview, for at least part of the past year, and for a period longer than a year prior to the interview date. Preliminary estimates are released on a quarterly basis prior to final data editing and weighting to provide access to the most recent information from NHIS. Both surveys permit point-in-time estimates of insurance status for the nation in addition to estimates of coverage over a year's duration. For the point-in-time coverage estimates compared in this report, the average of MEPS monthly coverage estimates are used to derive annual cross sectional point-in-time (averaged across months) MEPS estimates. The point-in-time NHIS estimates are based on coverage that respondents reported at the time of the NHIS interview. When comparing estimates of health insurance coverage status across the two surveys, it is critical to standardize the insurance coverage metric and the associated time period to the extent possible.

## **Recommendations**

**We recommend using the NHIS for estimates of current coverage.** The design of the NHIS is best suited for collecting information on current coverage, since 1) it is designed to collect insurance information at the interview date, 2) it contains detailed questions about sources of coverage allowing for coverage type verification, 3) it has a large sample size, and 4) the survey is fielded continuously throughout the year allowing for tracking of changes that may occur during the year.

**We recommend using the MEPS data for calendar year national estimates of the uninsured and for longitudinal estimates on transitions in coverage and sources of coverage.** The design of

the MEPS is best suited for collecting information over a longer period of time, given that it collects information on 2 calendar years with five interview rounds.

**We recommend modifying the NHIS hierarchy used for the insurance classification of adults aged 65 and over for NCHS reports and analytic projects to deduplicate the reporting of private health insurance and Medicare Advantage plans.** This would result in an increased report of Medicare only and produce estimates that are closely aligned to MEPS and MCBS. Respondents with a duplicative report of Medicare Advantage and private coverage will be placed in a separate analytic category. Note that this change does not require any change to how health insurance data is edited on the NHIS, just in how the estimates are reported in tables. End users will still be able to develop their own hierarchies from variables on public use files.

**We recommend that the NHIS modify the answer categories to the question: “How long has it been since you last had health care coverage?”** This modification will align the responses to other national federal surveys, facilitate the comparison of estimates of long-term uninsurance, and contribute to the alignment effort currently undertaken by the Department of Health and Human Services. The new answer categories will be:

- 1) 6 months or less
- 2) More than 6 months, but less than 1 year
- 3) 1 year
- 4) More than 1 year, but less than 3 years
- 5) 3 years or more
- 6) Never, Refused, Don't know

**We recommend using MCBS as a point-of-comparison, when the data become available, for Medicare beneficiaries age 65+ residing in the community.** Like the MEPS, the MCBS is also a panel survey and can provide estimates over time for Medicare beneficiaries. It also has the added benefit of administrative data on insurance coverage. MCBS releases variables related to insurance coverage with an indicator for the source of insurance coverage (survey only, survey and administrative records, and administrative records only) for both original Medicare (fee-for-service: Parts A and B) as well as Medicare Advantage beneficiaries. In order to make the MCBS estimates more available for benchmarking, MCBS plans to release a public use file in 2016 which will contain insurance data for analysts (the public use file will include data from MCBS Access to Care 2013). This cross-agency effort has reiterated the importance of creating this public use file for data users.

**We recommend that the MEPS add probes to the 2018 MEPS questionnaire for individuals to verify insurance coverage and lack of coverage.** As of the writing of this report the MEPS was exploring adding questions that are similar to the CPS verification questions in the 2018 MEPS questionnaire.

**We recommend that the MEPS add a question on VA coverage to the 2018 MEPS questionnaire to facilitate cross-survey comparisons on uninsured rates.**

**We recommend that in situations when population based surveys wish to include a single measure of health insurance coverage status in their questionnaires in order to serve as a control variable for various types of analyses that they use the ACS/NHIS list question.**

## **Observations:**

1. The estimates that are consistent with a given survey's intended main purpose appear to perform the best when comparing estimates from surveys for similar time periods (e.g., comparing point-in-time estimates across surveys and comparing full-year estimates across surveys). For example, the surveys that are designed to collect information on point-in-time insurance status (ACS and NHIS) may produce superior point-in-time estimates compared to the MEPS, which is designed to collect longitudinal information, possibly because of the different degree of recall bias in MEPS compared to the ACS and NHIS. Estimates of the percentage uninsured at a point in time from the ACS and NHIS are both lower than similar estimates from MEPS. The ACS and NHIS estimates of the percentage of the population that is uninsured at different points in time during 2013 are also almost identical. This may be due to the ACS' and NHIS' similar approach to asking about insurance coverage. Both surveys present respondents with a list of coverage types and ask respondents to select all that apply. However, while their uninsured estimates are similar, the ACS and NHIS have different estimates of the sources of coverage. These differences likely stem from the limitation the ACS faces of being able to ask only one insurance question on their paper and internet versions of the survey. In contrast, the NHIS asks many detailed questions on insurance coverage, following up on the responses to the initial coverage question (list). With respect to full-year estimates, the MEPS full-year estimates may be more accurate than those from the CPS, due to the longitudinal design of the MEPS. This longitudinal design reduces the degree of recall bias compared to the CPS which asks about calendar year coverage in one interview. Full-year estimates of the uninsured from NHIS represent being without insurance for more than a year and are also asked about in one interview.

2. Differences in insurance estimates across surveys for adults by poverty status has raised the issue of how different surveys capture information on income for young adults who are students living away from home. The MEPS and CPS include the student's family income when estimating the student's poverty status. The ACS and NHIS only include the student's income.<sup>2</sup> This is an important factor for analyses of young adults' access to subsidized coverage from the marketplace as well as eligibility for Medicaid. Differences among the surveys in income measurement—for example, in the number of questions on detailed income sources and in the methods used to impute missing income information—may also produce differences in insurance estimates by income group, for both children and adults.
3. The analyses conducted for this report highlight key differences in health insurance coverage estimates from different federal surveys that arise from temporal differences in insurance coverage questions (current vs. longitudinal) and in the mode and analytical goals of each survey. For example, the NHIS asks detailed questions about current coverage with in-person interviews while the ACS contains one question on insurance coverage in the paper/internet version of the survey and separate questions on each coverage type in the CATI version. In addition, the CPS contains information on current coverage as an anchor for asking about coverage for the previous calendar year and has designed its questions using methodology meant to obtain information with a long recall period. The MEPS asks about insurance status over a 2-year period using multiple interviews and therefore has shorter recall periods than the CPS. Also, one of the analytical goals of the MEPS is to link information on health insurance and

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<sup>2</sup> Although not a core survey, we do present estimates for NSDUH which does not calculate poverty status for students living away from home.

employment and as a result, health insurance questions are first asked in the employment section of the questionnaire. In addition, because MEPS has multiple interviews it uses dependent interviewing techniques in the second through fifth interviews to review coverage reported in earlier rounds.

4. The results from this report support the evidence from previous research that has shown that the ACS health insurance question produces an underreporting of Medicaid and other means-tested programs and an over-reporting of direct purchase health insurance coverage, compared to other surveys. In 2016, the ACS Content Test fielded a modified version of the ACS health insurance question that was designed to address these issues.
5. While the surveys differ in their approach to asking health insurance questions, there has been a great deal of collaboration between the surveys in designing new questions and approaches to asking about insurance coverage through the new marketplaces in recent years. Another example of collaboration between the surveys is that when adding questions on Health Savings Accounts and Flexible Spending Accounts the MEPS used the questions exactly as worded in the NHIS. We expect this level of collaboration to continue as the surveys analyze data collected on marketplace and Medicaid coverage and decide whether revisions to the questions and approaches are necessary.
6. Comparisons of survey data with administrative data will be necessary to evaluate how well the surveys are identifying marketplace and Medicaid enrollees. In addition, our focus was on national estimates of health insurance coverage, and future attention could also be given to evaluations of the capacity and alignment of coverage estimates obtained from federal surveys at both the state and subnational levels.



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**Table 1a****National Surveys Providing Health Insurance Coverage Estimates: Design Specifications and Analytic Capacity as of the writing of this report**

Survey Features	National Health Interview Survey (NHIS)	Medical Expenditure Panel Survey (MEPS)	Current Population Survey (CPS)	American Community Survey (ACS)	National Survey on Drug Use and Health (NSDUH)	Medicare Current Beneficiary Survey (MCBS)
Sponsor	NCHS	AHRQ	Census	Census	SAMHSA	CMS
Approximate sample size	100,000	35,000	200,000	3,000,000	67,838	14,500
Approximate response rate (%)	80-90%	55-65%	91-93%	93-98%	72%	68-77%
Population age	All ages	All ages	All ages	All ages	12+	Aged and Disabled Medicare Beneficiaries
Year survey began	1957	1996	1980 (first year with health insurance questions)	2008 (first year with health insurance questions)	1971	1991
Time lag for data use	3-6 months	1-2 years	9 months	9 months	9-12 months	2-3 years; anticipated 18 months after 2015 due to new sampling methodology
Publically available	Yes	Yes	Yes	Yes	Yes	Anticipated Fall of 2015 for 2013 data
State-level estimates	Yes	Limited	Yes	Yes	Yes	No
Longitudinal	Limited	Yes	Limited	No	No	Yes
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Income	Yes	Yes	Yes	Yes	Yes	Yes
Health insurance	Yes	Yes	Yes	Yes	Yes	Yes
Access to care	Yes	Yes	No	No	Yes	Yes
General health status	Yes	Yes	Yes	No	Yes	Yes
Specific medical conditions	Yes	Yes	No	No	Yes - Limited	Yes
Utilization	Yes	Yes	No	No	Yes	Yes
Premiums and medical spending	Limited	Yes	Limited	No	No	Yes

**Table 1b**  
**Health Insurance Coverage Questions in NHIS, MEPS, ACS, and CPS**

Questions	NHIS	MEPS	ACS	CPS
Was there a time without health care coverage?	<p>In the PAST 12 MONTHS, was there any time when [fill: you/ALIAS] did NOT have ANY health insurance or coverage? (HINOTYR)</p> <p>Yes/No/Refused/Don't know</p> <p>Note: This question is asked of persons who currently have coverage, It is not used to generate estimates of the uninsured at the time of interview.</p>	<p>The MEPS can construct estimates on whether a respondent was uninsured at any point during a calendar year or over a 2-year period, by using monthly variables that indicate if a person is insured at any point during that particular month. These variables are constructed from responses to a series of detailed questions about private and public health insurance coverage. This information is collected at each of the five rounds of the survey.</p>	n/a (current coverage only)	<p>No specific question about a time without coverage, but many questions to get at the exact months of coverage (Jan of previous calendar year through interview month in Feb/Mar/Apr), including probes during gaps in coverage</p>
How long without coverage?	<p>In the PAST 12 MONTHS, about how many months [fill: were you/was ALIAS] without coverage? (HINOTMYR)</p> <p>1-12 months/Refused/Don't know</p> <hr/> <p>Not including Single Service Plans, about how long has it been since [fill: you/ALIAS] last had health care coverage? (HILAST)</p> <p>6 months or less/More than 6 months - less than 1 year/More than 1 year - less than 3 years/More than 3 years/Never/Refused/Don't know</p>	<p>Similar to the item above, the monthly insurance variables can be used to construct information on spells of uninsurance during a 2-year period. By linking to the same respondents in the NHIS, the time period can be expanded.</p>	n/a (current coverage only)	<p>No specific question about a time without coverage, but many questions to get at the exact months of coverage (Jan of previous calendar year through interview month in Feb/Mar/Apr), including probes during gaps in coverage</p>

Questions	NHIS	MEPS	ACS	CPS
Past 12 months health care coverage	<p>Think about the last time [fill1: you/ALIAS] had health insurance or health care coverage. What type did [fill1: you/ALIAS] have?}</p> <p>What type of health insurance or coverage did [fill1: you/ALIAS] have before this period?}</p> <p>If person had a change in coverage type in the past year: {What other types of health insurance or health care coverage did [fill1: you/ALIAS] have?} (FHIKDB)</p> <p>Private health insurance, Medicare, Medi-Gap, Medicaid, SCHIP (CHIP/Children's Health Insurance Program, Military Health Care (Tricare/VA/CHAMP-VA), Indian Health Service, State-sponsored health plan, Other government program, Single service plan (e.g., dental, vision, prescriptions), No coverage of any type, Refused, Don't know</p>	See above comments for detail about using monthly insurance variables. The MEPS has monthly insurance variables for detailed categories of public and private coverage. It does not collect information on HIS coverage or VA coverage	n/a (current coverage only)	<p>Did your coverage from ^PLANTYPE start before January 1, 2014?</p> <p>{If no}: In which month/year did that coverage start?</p> <p>{All}: Has it been continuous since ^COVBEG?</p> <p>{If no}: Several follow-up questions obtain specific months of coverage</p>

Questions	NHIS	MEPS	ACS	CPS
Current health care coverage	<p>What kind of health insurance or health care coverage [fill: do you/does ALIAS] have? INCLUDE those that pay for only one type of service (nursing home care, accidents, or dental care). EXCLUDE private plans that only provide extra cash while hospitalized. (HIKIND)</p> <p>Same response options as above</p>	<p>There are variables that indicate insurance status as of the MEPS interview date for each round, but since these dates vary across respondents, such estimates are not usually made because, unlike the current estimates from the NHIS, the time period is not as well defined.</p>	<p>Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? Mark “Yes” or “No” for EACH type of coverage in items a-h.</p> <p>(a) Insurance through a current or former employer or union (of this person or another family member); (b) Insurance purchased directly from an insurance company (by this person or another family member); (c) Medicare, for people 65 and over, or people with certain disabilities; (d) Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability; (e) TRICARE or other military health care; (f) VA (including those who have ever used or enrolled for VA health care); (g) Indian Health Service; (h) Any other type of health insurance or health coverage plan - Specify</p>	<p>Do you NOW have any type of health plan or health coverage?</p> <p>{ Alternative question, for those 65+ or receiving SS for a disability}: Medicare is health coverage for people 65 years and over and people under 65 with disabilities. Are you NOW covered by Medicare?</p> <p>{ If no}: Specific questions are asked about current coverage through (1) Medicaid, Medical Assistance, CHIP, or Medicare; (2) a state or government assistance program that helps pay for healthcare; (3) VA Care (for veterans only).</p> <p>{ If person says “No” to all current coverage questions, ask:} I recorded that you are not currently covered by a health plan. Is that correct?</p>



Questions	NHIS	MEPS	ACS	CPS
Covered by parents' insurance?	For persons for whom the policyholder is outside the family roster, they are asked: How {are you/is ALIAS} related to the policyholder for {plan name}?  Child/Spouse/Former spouse/Some other relationship/Refused/Don't know	National estimates on whether an individual is covered by parents' insurance cannot be constructed from the MEPS for all persons. However, these types of estimates can be constructed for children whose parents are also in the survey since information is available on the identity of the policyholder and the relationship between the covered person and the policyholder.	n/a	If the parent and child are both in the household, then questions about the policyholder and who is covered under each plan capture this information.  Additionally, someone can report coverage that they obtain through a parent directly:  Do you get that coverage through a parent or spouse, do you buy it yourself, or do you get it some other way?
Purchasing insurance on the insurance marketplace	Was [fill: your/ALIAS's] Medicaid/Private plan/CHIP plan/State-sponsored plan obtained through HealthCare.gov or the [fill: Health Insurance Marketplace/Health Insurance Marketplace, such as (fill: state name)]?  For private plans, beginning in 2015 for the question Which one of these categories best describes how this plan was obtained? The answer category of "Through Healthcare.gov or the Affordable Care Act, also known as Obamacare" was added to the instrument.	For private coverage: "Is this coverage through [state Marketplace name], {which may also be known as [name 2] or [name 3]}?" For public coverage: "Is the coverage with Medicaid/[state Medicaid name] or [state CHIP name] through [state Marketplace name], [which may also be known as [name 2] or [name 3]}?" (similar question for public coverage reported as "other government coverage."	For 2019-forward: A combination of information about whether a person holds direct-purchase coverage and responses to the premium/subsidy question can help to inform whether a respondent has subsidized marketplace coverage. The premium/subsidy question is: a. Is there a premium for this plan? A premium is a fixed amount of money paid on a regular basis for health coverage. It does not include copays, deductibles, or other expenses such as prescription costs. <input type="checkbox"/> Yes <input type="checkbox"/> No -> Skip to question 18a b. Does this person or another family member receive a tax credit or subsidy based on family income, to help pay the premium? <input type="checkbox"/> Yes <input type="checkbox"/> No	{In federal Marketplace states}: Is that coverage through the Health Insurance Marketplace, which may also be known as HealthCare.gov?  {In other states}: Is that coverage through the ^STPORTAL, which may also be known as HealthCare.gov or ^ALTNAME?  {Additionally, someone can provide the name of a plan through a marketplace when asked}: What do you call the program?

Questions	NHIS	MEPS	ACS	CPS
Paying a premium for insurance bought on the marketplace?	<p>For public coverage: A health insurance premium is the amount you or a family member pays each month for health care coverage. Do you or a family member pay a premium for [Fill 1: your/ALIAS's] Medicaid/CHIP plan/State-sponsored plan/Other government program? For Private plans: Who pays for this health insurance plan?</p> <p>Self or family (living in household)/Employer or union/Someone outside the household/Medicare/Medicaid/Children's Health Insurance Program (CHIP/SCHIP)/State or local government or community program.</p>	<p>Private coverage: "For the coverage through [establishment name], does anyone in the family pay all of the premium or cost, some of the premium or cost, or none of the premium or cost?" Public coverage: "Is there a monthly premium {for anyone in the family} for the coverage through {[name of plan]}/{Medicaid/{state Medicaid name}} or {[state CHIP name]}/the program sponsored by a state or local government agency which provides hospital and physician benefits}?"</p>	<p>See information under "Purchasing insurance on the insurance marketplace."</p>	<p>{Only asked of those who said they had direct purchase, marketplace, or Medicaid or other means-tested plan}</p> <p>Is there a monthly premium for this plan? {A monthly premium is a fixed amount of money people pay each month to have health coverage. It does not include copays or other expenses such as prescription costs.}</p>

Questions	NHIS	MEPS	ACS	CPS
Is premium subsidized?	For both public and private coverage: Is the premium paid for this {type of insurance/or name of plan} based on income?	For both public and private coverage: “Is the cost of the premium subsidized based on family income?”	See information under “Purchasing insurance on the insurance marketplace.”	{ Only asked of those who said “Yes” to the premium question }  Is the cost of the premium subsidized based on family income? <ul style="list-style-type: none"> <li>• A monthly premium is a fixed amount of money people pay each month to have health coverage. It does not include copays or other expenses such as prescription costs.</li> <li>• Subsidized health coverage is insurance with a reduced premium. Low and middle income families are eligible to receive tax credits that allow them to pay lower premiums for insurance bought through healthcare marketplaces.</li> </ul>

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NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; ACS, American Community Survey; CPS, Current Population Survey

**Table 2a**  
**2013 Current Health Insurance Coverage Estimates, Overall and by Age Group**

Health insurance coverage by age group	ACS		NHIS		MEPS	
	Percent	(SE)	Percent	(SE)	Percent	(SE)
<b>All ages</b>						
Private	63.4 <sup>3</sup>	(0.1)	60.2	(0.4)	59.1 <sup>6</sup>	(0.8)
ESI	54.0 <sup>3</sup>	(0.1)	51.9	(0.4)	53.4	(0.8)
Non-group	9.3 <sup>3</sup>	(0.0)	8.4 <sup>9</sup>	(0.2)	5.7 <sup>6</sup>	(0.3)
Public only	22.1 <sup>3</sup>	(0.0)	24.8	(0.3)	24.1 <sup>6</sup>	(0.6)
Uninsured	14.5	(0.0)	14.5 <sup>9</sup>	(0.2)	16.8 <sup>6</sup>	(0.5)
<b>Under Age 65</b>						
Private	64.0 <sup>3</sup>	(0.1)	61.8	(0.4)	61.5 <sup>6</sup>	(0.9)
ESI	57.1 <sup>2</sup>	(0.1)	56.0 <sup>7</sup>	(0.4)	57.7	(0.9)
Non-group	6.9 <sup>3</sup>	(0.0)	5.8 <sup>9</sup>	(0.2)	3.8 <sup>6</sup>	(0.2)
Medicaid	16.6 <sup>3</sup>	(0.0)	17.6	(0.3)	16.6	(0.6)
Other coverage	2.7 <sup>3</sup>	(0.0)	3.5 <sup>9</sup>	(0.1)	2.4 <sup>6</sup>	(0.1)
Uninsured	16.7	(0.0)	16.7 <sup>9</sup>	(0.3)	19.5 <sup>6</sup>	(0.6)
<b>Under Age 18</b>						
Private	56.2 <sup>3</sup>	(0.1)	53.2	(0.7)	54.0 <sup>4</sup>	(1.3)
ESI	50.6 <sup>2</sup>	(0.1)	48.9 <sup>7</sup>	(0.7)	51.4	(1.3)
Non-group	5.5 <sup>3</sup>	(0.0)	4.3 <sup>9</sup>	(0.2)	2.6 <sup>6</sup>	(0.3)
Medicaid	34.7 <sup>3</sup>	(0.1)	37.7	(0.6)	36.6	(1.3)
Other coverage	2.1 <sup>2</sup>	(0.0)	2.5 <sup>9</sup>	(0.2)	1.2 <sup>6</sup>	(0.2)
Uninsured	7.1 <sup>2</sup>	(0.0)	6.6 <sup>8</sup>	(0.3)	8.2 <sup>5</sup>	(0.5)
<b>Ages 18-64</b>						
Private	66.9 <sup>3</sup>	(0.1)	65.1	(0.4)	64.4 <sup>6</sup>	(0.8)
ESI	59.5 <sup>2</sup>	(0.1)	58.7	(0.4)	60.1	(0.8)
Non-group	7.4 <sup>3</sup>	(0.0)	6.3 <sup>9</sup>	(0.2)	4.3 <sup>6</sup>	(0.3)
Medicaid	9.8	(0.0)	10.0 <sup>9</sup>	(0.2)	9.0 <sup>5</sup>	(0.4)
Other coverage	3.0 <sup>3</sup>	(0.0)	3.9 <sup>9</sup>	(0.1)	2.8	(0.2)
Uninsured	20.3	(0.1)	20.5 <sup>9</sup>	(0.3)	23.8 <sup>6</sup>	(0.7)
<b>Age 65 and over</b>						
Private	59.7 <sup>3</sup>	(0.1)	50.4 <sup>9</sup>	(0.8)	44.2 <sup>6</sup>	(1.3)
ESI	35.0 <sup>3</sup>	(0.1)	25.7	(0.6)	27.0 <sup>6</sup>	(1.1)
Non-group	24.7	(0.1)	24.7 <sup>9</sup>	(0.6)	17.2 <sup>6</sup>	(1.2)
Dual Eligible	9.0 <sup>3</sup>	(0.0)	7.1 <sup>9</sup>	(0.3)	8.8	(0.6)
Medicare only	25.7 <sup>3</sup>	(0.1)	35.9 <sup>9</sup>	(0.7)	41.5 <sup>6</sup>	(1.3)
Other coverage	4.6 <sup>1</sup>	(0.0)	5.1	(0.3)	5.0	(0.5)
Uninsured	1.0	(0.0)	1.2	(0.1)	0.6	(0.1)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error; ESI, employer-sponsored insurance

Superscripts 1, 2, and 3 indicate that the difference in the estimates between ACS and NHIS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 4, 5, and 6 indicate that the difference in the estimates between ACS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 7, 8, and 9 indicate that the difference in the estimates between NHIS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 2b**

**2013 Current Health Insurance Coverage Estimates by Family Income Category Relative to the Federal Poverty Line**

Health insurance coverage by Federal Poverty Line	All Under Age 65						Under Age 18						Ages 18-64					
	ACS		NHIS		MEPS		ACS		NHIS		MEPS		ACS		NHIS		MEPS	
	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)
<b>&lt;100% Federal Poverty Line</b>																		
Private	21.2 <sup>3</sup>	(0.1)	15.5 <sup>8</sup>	(0.8)	13.0 <sup>6</sup>	(0.9)	13.8 <sup>3</sup>	(0.1)	8.4	(0.8)	8.1 <sup>6</sup>	(1.1)	25.4 <sup>3</sup>	(0.1)	19.9 <sup>9</sup>	(1.0)	15.9 <sup>6</sup>	(1.1)
ESI	15.5 <sup>3</sup>	(0.1)	12.2 <sup>7</sup>	(0.6)	10.3 <sup>6</sup>	(0.8)	10.9 <sup>3</sup>	(0.1)	7.1	(0.7)	7.0 <sup>6</sup>	(1.0)	18.1 <sup>3</sup>	(0.1)	15.3 <sup>8</sup>	(0.8)	12.2 <sup>6</sup>	(0.9)
Non-group	5.7 <sup>2</sup>	(0.1)	3.3	(0.3)	2.8 <sup>6</sup>	(0.4)	2.9 <sup>3</sup>	(0.1)	1.3	(0.3)	1.1 <sup>6</sup>	(0.3)	7.3 <sup>3</sup>	(0.1)	4.6	(0.4)	3.7 <sup>6</sup>	(0.6)
Medicaid	48.0 <sup>3</sup>	(0.1)	52.9	(0.8)	52.7 <sup>6</sup>	(1.2)	76.0 <sup>3</sup>	(0.2)	82.3	(0.9)	83.3 <sup>6</sup>	(1.3)	32.3 <sup>3</sup>	(0.1)	35.0	(0.8)	35.1 <sup>5</sup>	(1.4)
Other coverage	2.8 <sup>2</sup>	(0.0)	3.3	(0.2)	2.9	(0.3)	1.4	(0.1)	1.1	(0.3)	0.8 <sup>4</sup>	(0.3)	3.6 <sup>3</sup>	(0.0)	4.6	(0.3)	4.1	(0.4)
Uninsured	27.9	(0.1)	28.0 <sup>9</sup>	(0.6)	31.4 <sup>6</sup>	(1.0)	8.9	(0.1)	8.2	(0.6)	7.8	(0.7)	38.7	(0.1)	40.0 <sup>9</sup>	(0.9)	44.9 <sup>6</sup>	(1.4)
<b>100-199% Federal Poverty Line</b>																		
Private	40.1 <sup>3</sup>	(0.1)	35.1	(0.8)	35.8 <sup>6</sup>	(1.4)	36.5 <sup>3</sup>	(0.2)	28.5	(1.2)	30.5 <sup>6</sup>	(2.1)	41.9 <sup>3</sup>	(0.1)	38.3	(0.8)	38.5 <sup>5</sup>	(1.4)
ESI	34.2 <sup>3</sup>	(0.1)	30.7	(0.7)	32.8	(1.4)	31.9 <sup>3</sup>	(0.2)	25.9	(1.1)	28.6	(2.0)	35.3 <sup>3</sup>	(0.1)	33.0	(0.7)	35.0	(1.4)
Non-group	6.0 <sup>3</sup>	(0.1)	4.4 <sup>9</sup>	(0.3)	3.0 <sup>6</sup>	(0.4)	4.6 <sup>3</sup>	(0.1)	2.6	(0.4)	1.9 <sup>6</sup>	(0.5)	6.6 <sup>3</sup>	(0.1)	5.2 <sup>9</sup>	(0.3)	3.5 <sup>6</sup>	(0.4)
Medicaid	28.2 <sup>2</sup>	(0.1)	29.7	(0.6)	29.3	(1.0)	50.6 <sup>3</sup>	(0.2)	57.8	(1.2)	57.1 <sup>6</sup>	(1.9)	17.1	(0.1)	16.5	(0.5)	15.3 <sup>5</sup>	(0.7)
Other coverage	3.8 <sup>3</sup>	(0.0)	5.2 <sup>9</sup>	(0.3)	3.3	(0.3)	2.3	(0.1)	2.5 <sup>9</sup>	(0.4)	0.8 <sup>6</sup>	(0.2)	4.5 <sup>3</sup>	(0.0)	6.4 <sup>9</sup>	(0.3)	4.6	(0.4)
Uninsured	28.0 <sup>2</sup>	(0.1)	29.3 <sup>7</sup>	(0.6)	31.5 <sup>6</sup>	(1.1)	10.7	(0.1)	11.1	(0.7)	11.6	(1.2)	36.6 <sup>1</sup>	(0.1)	37.8 <sup>9</sup>	(0.7)	41.6 <sup>6</sup>	(1.3)
<b>200+% Federal Poverty Line</b>																		
Private	81.8	(0.1)	81.8 <sup>8</sup>	(0.3)	80.1 <sup>6</sup>	(0.7)	81.9	(0.1)	81.7 <sup>7</sup>	(0.6)	79.5 <sup>5</sup>	(1.0)	81.8	(0.1)	81.8 <sup>8</sup>	(0.3)	80.3 <sup>5</sup>	(0.7)
ESI	74.6	(0.1)	75.0	(0.4)	75.8	(0.7)	74.9	(0.1)	75.5	(0.7)	76.1	(1.1)	74.5	(0.1)	74.8	(0.4)	75.7	(0.7)
Non-group	7.2 <sup>1</sup>	(0.0)	6.8 <sup>9</sup>	(0.2)	4.3 <sup>6</sup>	(0.3)	7.0 <sup>2</sup>	(0.1)	6.2 <sup>9</sup>	(0.4)	3.4 <sup>6</sup>	(0.5)	7.3	(0.0)	7.0 <sup>9</sup>	(0.2)	4.6 <sup>6</sup>	(0.3)
Medicaid	5.0	(0.0)	4.9	(0.2)	4.6	(0.3)	10.9	(0.1)	11.1	(0.5)	12.0	(0.8)	3.2	(0.0)	3.0 <sup>9</sup>	(0.1)	2.3 <sup>6</sup>	(0.2)
Other coverage	2.5 <sup>3</sup>	(0.0)	3.1 <sup>9</sup>	(0.2)	2.0 <sup>6</sup>	(0.2)	2.2 <sup>3</sup>	(0.0)	3.1 <sup>9</sup>	(0.3)	1.6 <sup>5</sup>	(0.3)	2.5 <sup>3</sup>	(0.0)	3.1 <sup>9</sup>	(0.1)	2.1 <sup>5</sup>	(0.2)
Uninsured	10.7 <sup>3</sup>	(0.0)	9.9 <sup>9</sup>	(0.2)	13.3 <sup>6</sup>	(0.5)	4.9 <sup>2</sup>	(0.1)	4.2 <sup>9</sup>	(0.3)	7.0 <sup>6</sup>	(0.6)	12.5 <sup>3</sup>	(0.1)	11.7 <sup>9</sup>	(0.3)	15.3 <sup>6</sup>	(0.6)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; Pct., percent; SE, standard error; ESI, employer-sponsored insurance. Superscripts 1, 2, and 3 indicate that the difference in the estimates between ACS and NHIS is statistically significant at the 10, 5, and 1 percent level, respectively. Superscripts 4, 5, and 6 indicate that the difference in the estimates between ACS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively. Superscripts 7, 8, and 9 indicate that the difference in the estimates between NHIS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively. The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent. Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 2c**  
**2013 Current Health Insurance Coverage Estimates for Adults Aged 18-64 Years by Race and Ethnicity**

Health insurance coverage by race and ethnicity	ACS		NHIS		MEPS	
	Percent	(SE)	Percent	(SE)	Percent	(SE)
<b>Hispanic or Latino</b>						
Private	45.2 <sup>3</sup>	(0.2)	42.3	(0.7)	40.2 <sup>6</sup>	(1.3)
ESI	41.3 <sup>3</sup>	(0.1)	39.5	(0.7)	38.2 <sup>5</sup>	(1.2)
Non-group	3.9 <sup>3</sup>	(0.0)	2.8 <sup>7</sup>	(0.2)	2.0 <sup>6</sup>	(0.3)
Medicaid	13.0	(0.1)	13.1	(0.4)	12.5	(0.8)
Other coverage	1.9 <sup>3</sup>	(0.0)	3.1 <sup>9</sup>	(0.2)	1.9	(0.2)
Uninsured	39.9	(0.1)	41.1 <sup>9</sup>	(0.8)	45.3 <sup>6</sup>	(1.3)
<b>Non-Hispanic or Latino: White, single race</b>						
Private	75.1 <sup>3</sup>	(0.1)	73.6	(0.4)	73.3 <sup>5</sup>	(0.9)
ESI	66.5	(0.1)	66.1 <sup>7</sup>	(0.5)	68.1	(1.0)
Non-group	8.6 <sup>3</sup>	(0.0)	7.5 <sup>9</sup>	(0.2)	5.3 <sup>6</sup>	(0.4)
Medicaid	7.3	(0.0)	7.4 <sup>9</sup>	(0.2)	6.2 <sup>6</sup>	(0.4)
Other coverage	3.1 <sup>3</sup>	(0.0)	3.9 <sup>9</sup>	(0.2)	2.8	(0.2)
Uninsured	14.4	(0.1)	14.5 <sup>9</sup>	(0.3)	17.7 <sup>6</sup>	(0.7)
<b>Non-Hispanic or Latino: Black, single race</b>						
Private	53.8 <sup>3</sup>	(0.1)	50.9	(0.8)	50.0 <sup>6</sup>	(1.1)
ESI	49.6 <sup>2</sup>	(0.1)	47.3	(0.8)	48.2	(1.1)
Non-group	4.2 <sup>2</sup>	(0.1)	3.6 <sup>9</sup>	(0.3)	1.9 <sup>6</sup>	(0.2)
Medicaid	18.0	(0.1)	18.5	(0.6)	17.5	(0.9)
Other coverage	4.1 <sup>3</sup>	(0.0)	5.0	(0.3)	4.7 <sup>4</sup>	(0.4)
Uninsured	24.0	(0.1)	24.7 <sup>9</sup>	(0.6)	27.7 <sup>6</sup>	(0.9)
<b>Non-Hispanic or Latino: Asian, single race</b>						
Private	72.2	(0.2)	71.9	(1.1)	69.9	(1.6)
ESI	61.2	(0.2)	61.6	(1.2)	64.2 <sup>4</sup>	(1.7)
Non-group	10.9	(0.1)	10.3 <sup>9</sup>	(0.8)	5.8 <sup>6</sup>	(0.8)
Medicaid	7.7	(0.1)	8.4	(0.7)	7.2	(1.1)
Other coverage	1.7 <sup>3</sup>	(0.0)	3.5 <sup>9</sup>	(0.4)	1.4	(0.4)
Uninsured	18.4 <sup>3</sup>	(0.2)	16.1 <sup>9</sup>	(0.8)	21.5 <sup>5</sup>	(1.3)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error; ESI, employer-sponsored insurance.

Superscripts 1, 2, and 3 indicate that the difference in the estimates between ACS and NHIS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 4, 5, and 6 indicate that the difference in the estimates between ACS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 7, 8, and 9 indicate that the difference in the estimates between NHIS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 2d**  
**2013 Alternative Current Health Insurance Coverage Estimates, Aged 65 and Over**

Health insurance coverage	ACS		NHIS		MEPS	
	Percent	(SE)	Percent	(SE)	Percent	(SE)
Private	59.7 <sup>3</sup>	(0.1)	43.6	(0.7)	44.2 <sup>6</sup>	(1.3)
Dual eligible	9.0 <sup>3</sup>	(0.0)	7.2 <sup>8</sup>	(0.3)	8.8	(0.6)
Medicare only	25.7 <sup>3</sup>	(0.1)	42.1	(0.7)	41.5 <sup>6</sup>	(1.3)
Other coverage	4.6 <sup>1</sup>	(0.0)	5.9	(0.3)	5.0	(0.5)
Uninsured	1.0	(0.0)	1.2 <sup>9</sup>	(0.1)	0.6 <sup>6</sup>	(0.1)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error. Superscripts 1, 2, and 3 indicate that the difference in the estimates between ACS and NHIS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 4, 5, and 6 indicate that the difference in the estimates between ACS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

Superscripts 7, 8, and 9 indicate that the difference in the estimates between NHIS and MEPS is statistically significant at the 10, 5, and 1 percent level, respectively.

Public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 3a**  
**2013 Full Year Health Insurance Coverage Estimates, Overall and By Age Group**

Health insurance coverage by age group	CPS		MEPS	
	Percent	(SE)	Percent	(SE)
<b>All ages</b>				
Private	64.2 <sup>3</sup>	(0.3)	62.3	(0.4)
ESI	55.7	(0.3)	56.4	(0.9)
Non-group	8.5 <sup>3</sup>	(0.1)	5.9	(0.3)
Public only	22.5 <sup>3</sup>	(0.2)	24.8	(0.6)
Uninsured	13.4	(0.1)	12.8	(0.4)
<b>Under Age 65</b>				
Private	65.8	(0.3)	64.7	(0.9)
ESI	60.0	(0.3)	61.1	(0.9)
Non-group	5.8 <sup>3</sup>	(0.1)	3.7	(0.2)
Medicaid	15.2 <sup>3</sup>	(0.2)	18.1	(0.6)
Other coverage	3.6 <sup>3</sup>	(0.1)	2.2	(0.1)
Uninsured	15.3	(0.1)	15.0	(0.5)
<b>Under Age 18</b>				
Private	60.0 <sup>3</sup>	(0.4)	56.1	(1.4)
ESI	55.4	(0.4)	53.7	(1.4)
Non-group	4.6 <sup>3</sup>	(0.2)	2.4	(0.3)
Medicaid	30.6 <sup>3</sup>	(0.5)	38.0	(1.3)
Other coverage	2.1 <sup>3</sup>	(0.1)	1.1	(0.2)
Uninsured	7.3 <sup>3</sup>	(0.2)	4.8	(0.5)
<b>Age 18-64</b>				
Private	68.1	(0.3)	68.0	(0.8)
ESI	61.7 <sup>2</sup>	(0.3)	63.8	(0.9)
Non-group	6.3 <sup>3</sup>	(0.1)	4.2	(0.3)
Medicaid	9.4 <sup>2</sup>	(0.2)	10.6	(0.4)
Other coverage	4.1 <sup>3</sup>	(0.1)	2.6	(0.2)
Uninsured	18.4	(0.2)	18.8	(0.6)
<b>Age 65 and over</b>				
Private	54.0 <sup>3</sup>	(0.6)	48.4	(1.3)
ESI	29.7	(0.6)	29.7	(1.2)
Non-group	24.4 <sup>3</sup>	(0.5)	18.7	(1.2)
Dual eligible	5.4 <sup>3</sup>	(0.2)	10.3	(0.7)
Medicare only	33.6	(0.6)	35.6	(1.2)
Other coverage	5.5	(0.3)	5.3	(0.5)
Uninsured	1.6 <sup>3</sup>	(0.1)	0.5	(0.1)

CPS, Current Population Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error; ESI, employer-sponsored insurance.

Superscripts 1, 2, and 3 indicate that the difference in the estimates for CPS and MEPS is statistically significant at the 10, 5, and 1 percent levels, respectively.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, Current Population Survey; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.



**Table 3b**  
**2013 Full Year Health Insurance Coverage Estimates by Family Income Category Relative to the Federal Poverty Line**

Health insurance coverage by Federal Poverty Line	All Under Age 65				Under Age 18				Ages 18-64			
	CPS		MEPS		CPS		MEPS		CPS		MEPS	
	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)	Pct.	(SE)
<b>&lt;100% Federal Poverty Line</b>												
Private	22.2 <sup>3</sup>	(0.6)	15.8	(1.1)	17.5 <sup>3</sup>	(0.8)	9.6	(1.2)	24.8 <sup>3</sup>	(0.6)	19.3	(1.3)
ESI	16.3 <sup>3</sup>	(0.5)	12.7	(1.0)	14.0 <sup>3</sup>	(0.8)	8.6	(1.2)	17.6 <sup>2</sup>	(0.5)	15.1	(1.1)
Non-group	5.9 <sup>3</sup>	(0.3)	3.0	(0.5)	3.5 <sup>3</sup>	(0.4)	1.0	(0.3)	7.2 <sup>3</sup>	(0.4)	4.2	(0.7)
Medicaid	47.1 <sup>3</sup>	(0.7)	57.0	(1.3)	72.1 <sup>3</sup>	(1.0)	85.8	(1.3)	33.3 <sup>3</sup>	(0.7)	40.7	(1.4)
Other coverage	3.8 <sup>2</sup>	(0.2)	2.8	(0.3)	1.2	(0.2)	0.9	(0.3)	5.2 <sup>2</sup>	(0.3)	4.0	(0.5)
Uninsured	26.9 <sup>2</sup>	(0.6)	24.3	(1.0)	9.3 <sup>3</sup>	(0.6)	3.7	(0.5)	36.7	(0.7)	36.1	(1.4)
<b>100-199% Federal Poverty Line</b>												
Private	43.4 <sup>2</sup>	(0.7)	40.3	(1.5)	41.0 <sup>3</sup>	(0.9)	33.8	(2.2)	44.6	(0.7)	43.5	(1.4)
ESI	36.8	(0.6)	37.3	(1.5)	36.3 <sup>1</sup>	(0.9)	32.0	(2.1)	37.1 <sup>1</sup>	(0.6)	40.0	(1.4)
Non-group	6.5 <sup>3</sup>	(0.3)	3.0	(0.4)	4.6 <sup>3</sup>	(0.4)	1.8	(0.5)	7.5 <sup>3</sup>	(0.3)	3.5	(0.4)
Medicaid	26.5 <sup>3</sup>	(0.5)	31.6	(1.1)	46.0 <sup>3</sup>	(1.0)	58.7	(2.1)	16.9	(0.5)	18.2	(0.9)
Other coverage	5.1 <sup>3</sup>	(0.2)	2.9	(0.3)	2.2 <sup>3</sup>	(0.3)	0.8	(0.3)	6.6 <sup>3</sup>	(0.3)	3.9	(0.4)
Uninsured	25.0	(0.5)	25.2	(1.0)	10.9 <sup>3</sup>	(0.6)	6.7	(1.1)	32.0 <sup>1</sup>	(0.5)	34.3	(1.3)
<b>≥200% Federal Poverty Line</b>												
Private	82.4	(0.3)	83.3	(0.7)	82.6	(0.4)	81.7	(1.0)	82.4 <sup>1</sup>	(0.3)	83.7	(0.7)
ESI	76.8 <sup>3</sup>	(0.3)	79.2	(0.7)	77.7	(0.4)	78.6	(1.2)	76.5 <sup>3</sup>	(0.3)	79.4	(0.7)
Non-group	5.6 <sup>3</sup>	(0.1)	4.0	(0.3)	4.9 <sup>3</sup>	(0.2)	3.2	(0.5)	5.8	(0.2)	4.3	(0.3)
Medicaid	4.6	(0.1)	5.1	(0.3)	9.8 <sup>3</sup>	(0.3)	12.5	(0.8)	2.9	(0.1)	2.7	(0.2)
Other coverage	3.1 <sup>3</sup>	(0.1)	1.8	(0.2)	2.4 <sup>3</sup>	(0.2)	1.3	(0.3)	3.3 <sup>3</sup>	(0.1)	2.0	(0.2)
Uninsured	9.9	(0.2)	9.9	(0.5)	5.3	(0.2)	4.4	(0.6)	11.4	(0.2)	11.6	(0.6)

CPS, Current Population Survey; MEPS, Medical Expenditure Panel Survey; Pct., percent; SE, standard error; ESI, employer-sponsored insurance. Superscripts 1, 2, and 3 indicate that the difference in the estimates for CPS and MEPS is statistically significant at the 10, 5, and 1 percent levels, respectively.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, Current Population Survey; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 3c**  
**2013 Full Year Health Insurance Coverage Estimates for Adults Aged 18-64 by Race and Ethnicity**

Health insurance coverage by race and ethnicity	CPS		MEPS	
	Percent	(SE)	Percent	(SE)
<b>Hispanic or Latino</b>				
Private	49.8 <sup>3</sup>	(0.6)	43.7	(1.4)
ESI	45.5 <sup>3</sup>	(0.6)	41.5	(1.3)
Non-group	4.3 <sup>3</sup>	(0.2)	2.1	(0.3)
Medicaid	14.5	(0.5)	15.4	(0.9)
Other coverage	2.4 <sup>1</sup>	(0.1)	1.9	(0.3)
Uninsured	33.2 <sup>3</sup>	(0.5)	39.0	(1.2)
<b>Non-Hispanic or Latino: White, single race</b>				
Private	75.5	(0.4)	76.9	(0.9)
ESI	68.3 <sup>3</sup>	(0.4)	71.9	(1.0)
Non-group	7.1 <sup>3</sup>	(0.2)	5.0	(0.4)
Medicaid	6.4 <sup>1</sup>	(0.2)	7.3	(0.4)
Other coverage	4.3 <sup>3</sup>	(0.2)	2.5	(0.2)
Uninsured	13.7	(0.2)	13.3	(0.7)
<b>Non-Hispanic or Latino: Black, single race</b>				
Private	54.7	(0.8)	54.6	(1.1)
ESI	50.9	(0.9)	52.5	(1.2)
Non-group	3.9	(0.3)	2.1	(0.3)
Medicaid	17.8 <sup>2</sup>	(0.6)	20.2	(1.0)
Other coverage	5.8 <sup>3</sup>	(0.3)	4.4	(0.4)
Uninsured	21.7	(0.6)	20.9	(0.8)
<b>Non-Hispanic or Latino: Asian, single race</b>				
Private	72.3	(1.0)	73.3	(1.7)
ESI	63.6 <sup>1</sup>	(1.1)	67.4	(1.9)
Non-group	8.7 <sup>3</sup>	(0.7)	5.8	(0.9)
Medicaid	7.3	(0.6)	7.8	(1.2)
Other coverage	2.6 <sup>2</sup>	(0.3)	1.4	(0.4)
Uninsured	17.9	(0.8)	17.6	(1.3)

CPS, Current Population Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error; ESI, employer-sponsored insurance.

Superscripts 1, 2, and 3 indicate that the difference in the estimates for CPS and MEPS is statistically significant at the 10, 5, and 1 percent levels, respectively.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, Current Population Survey; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Table 4a**  
**2013 Current Health Insurance Coverage Estimates for Adults Aged 18-64, including NSDUH**

Health insurance coverage	ACS		NHIS		MEPS		NSDUH	
	Percent	(SE)	Percent	(SE)	Percent	(SE)	Percent	(SE)
Private	66.9 <sup>3</sup>	(0.1)	65.1	(0.4)	64.39	(0.83)	65.4	(0.47)
ESI	59.5	(0.1)	59.5	(0.4)	60.10	(0.83)	60.1	(0.48)
Medicaid	9.8	(0.0)	10.0	(0.2)	8.96	(0.39)	9.7	(0.24)
Other coverage	3.0 <sup>3</sup>	(0.0)	3.9 <sup>3</sup>	(0.1)	2.8 <sup>3</sup>	(0.16)	5.9	(0.20)
Uninsured	20.3 <sup>3</sup>	(0.1)	20.5 <sup>3</sup>	(0.3)	23.8 <sup>3</sup>	(0.66)	19.1	(0.37)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; NSDUH, National Survey on Drug Use and Health; SE, standard error; ESI, employer-sponsored insurance.

Superscripts 1, 2, and 3 indicate that the difference between the estimate and that for NSDUH is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component; Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health.

**Table 4b**  
**2013 Current Uninsured Estimates, Ages 18-64, including NSDUH**

Characteristics	ACS		NHIS		MEPS		NSDUH	
	Percent	(SE)	Percent	(SE)	Percent	(SE)	Percent	(SE)
All	20.3 <sup>3</sup>	(0.1)	20.5 <sup>3</sup>	(0.3)	23.8 <sup>3</sup>	(0.7)	19.1	(0.4)
<b>By family income category</b>								
<100% Federal poverty line	38.7	(0.1)	40.0	(0.9)	44.9 <sup>3</sup>	(1.4)	38.2	(1.0)
100-199% Federal poverty line	36.6 <sup>2</sup>	(0.1)	37.8 <sup>3</sup>	(0.7)	41.6 <sup>3</sup>	(1.3)	34.5	(0.9)
200%+ Federal poverty line	12.5 <sup>3</sup>	(0.1)	11.7 <sup>3</sup>	(0.3)	15.3 <sup>3</sup>	(0.6)	9.9	(0.3)
<b>By race and ethnicity</b>								
Hispanic	39.9 <sup>3</sup>	(0.1)	41.1 <sup>3</sup>	(0.8)	45.3 <sup>3</sup>	(1.3)	36.5	(1.2)
Non-Hispanic white	14.4	(0.1)	14.5	(0.3)	17.7 <sup>3</sup>	(0.7)	13.9	(0.4)
Non-Hispanic black	24.0	(0.1)	24.7	(0.6)	27.7 <sup>3</sup>	(0.9)	24.3	(1.1)
Asian	18.4 <sup>3</sup>	(0.2)	16.1 <sup>3</sup>	(0.8)	21.5 <sup>3</sup>	(1.3)	14.2	(1.5)

ACS, American Community Survey; NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; NSDUH, National Survey on Drug Use and Health; SE, standard error.

Superscripts 1, 2, and 3 indicate that the difference between the estimate and that for NSDUH is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component; Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health.

**Table 5a**  
**2014 Current Health Insurance Coverage Estimates, Overall and by Age Group**

Health insurance coverage by age group	ACS		NHIS	
	Percent	(SE)	Percent	(SE)
<b>All ages</b>				
Private	64.7 <sup>3</sup>	(0.1)	61.8	(0.4)
ESI	54.2 <sup>3</sup>	(0.1)	50.8	(0.4)
Non-group	10.4 <sup>2</sup>	(0.0)	10.8	(0.2)
Marketplace	NA	NA	1.9	(0.1)
Public only	23.6 <sup>3</sup>	(0.0)	26.7	(0.2)
Uninsured	11.7	(0.0)	11.5	(0.2)
<b>Under Age 65</b>				
Private	65.7 <sup>3</sup>	(0.1)	63.7	(0.4)
ESI	57.6 <sup>3</sup>	(0.1)	55.3	(0.4)
Non-group	8.1 <sup>1</sup>	(0.0)	8.4	(0.2)
Marketplace	NA	NA	2.2	(0.1)
Medicaid	18.1 <sup>3</sup>	(0.0)	19.1	(0.3)
Other coverage	2.8 <sup>3</sup>	(0.0)	3.9	(0.2)
Uninsured	13.5	(0.0)	13.3	(0.2)
<b>Under Age 18</b>				
Private	56.6 <sup>3</sup>	(0.1)	53.7	(0.7)
ESI	50.8 <sup>3</sup>	(0.1)	48.8	(0.6)
Non-group	5.9 <sup>3</sup>	(0.0)	4.9	(0.2)
Marketplace	NA	NA	0.9	(0.1)
Medicaid	35.4 <sup>3</sup>	(0.1)	38.1	(0.6)
Other coverage	2.0 <sup>3</sup>	(0.0)	2.7	(0.3)
Uninsured	6.0 <sup>2</sup>	(0.0)	5.4	(0.2)
<b>Ages 18-64</b>				
Private	69.1 <sup>3</sup>	(0.1)	67.5	(0.4)
ESI	60.2 <sup>3</sup>	(0.1)	57.7	(0.4)
Non-group	8.9 <sup>3</sup>	(0.0)	9.7	(0.2)
Marketplace	NA	NA	2.6	(0.1)
Medicaid	11.5	(0.0)	11.8	(0.2)
Other coverage	3.0 <sup>3</sup>	(0.0)	4.4	(0.2)
Uninsured	16.3	(0.1)	16.3	(0.3)
<b>Age 65 and over</b>				
Private	58.5 <sup>3</sup>	(0.1)	50.3	(0.7)
ESI	34.0 <sup>3</sup>	(0.1)	24.5	(0.6)
Non-group	24.5	(0.1)	24.8	(0.6)
Marketplace	NA	NA	0.1	(0.0)
Dual eligible	9.1 <sup>3</sup>	(0.0)	6.7	(0.3)
Medicare only	26.8 <sup>3</sup>	(0.1)	36.3	(0.7)
Other public	4.7 <sup>2</sup>	(0.0)	5.5	(0.3)
Uninsured	0.9	(0.0)	0.8	(0.1)

ACS, American Community Survey; NHIS, National Health Interview Survey; SE, standard error; ESI, employer-sponsored insurance; NA, not available.

Superscripts 1, 2, and 3 indicate that the difference in the estimates for ACS and NHIS is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component.

**Table 5b**  
**2014 Current Health Insurance Coverage Estimates by Family Income Category Relative to the Federal Poverty Line**

Health insurance coverage by Federal Poverty Line	All Under Age 65				Under Age 18				Ages 18-64			
	ACS		NHIS		ACS		NHIS		ACS		NHIS	
	Percent	(SE)	Percent	(SE)	Percent	(SE)	Percent	(SE)	Percent	(SE)	Percent	(SE)
All												
<b>&lt;100% Federal Poverty Line</b>												
Private	22.7 <sup>3</sup>	(0.1)	17.4	(0.7)	13.9 <sup>3</sup>	(0.1)	8.6	(0.7)	27.6 <sup>3</sup>	(0.1)	22.7	(0.9)
ESI	16.1 <sup>3</sup>	(0.1)	12.1	(0.6)	10.8 <sup>3</sup>	(0.1)	6.7	(0.6)	19.0 <sup>3</sup>	(0.1)	15.4	(0.8)
Non-group	6.6 <sup>3</sup>	(0.1)	5.3	(0.4)	3.1 <sup>3</sup>	(0.1)	1.9	(0.4)	8.6 <sup>3</sup>	(0.1)	7.3	(0.5)
Marketplace	NA	NA	1.5	(0.2)	NA	NA	0.4	(0.1)	NA	NA	2.2	(0.2)
Medicaid	51.4 <sup>3</sup>	(0.1)	56.2	(0.9)	77.6 <sup>3</sup>	(0.2)	84.1	(0.9)	36.9 <sup>3</sup>	(0.1)	39.5	(1.0)
Other coverage	2.8 <sup>3</sup>	(0.0)	3.8	(0.2)	1.2	(0.0)	1.3	(0.3)	3.7 <sup>3</sup>	(0.0)	5.2	(0.3)
Uninsured	23.0	(0.1)	22.8	(0.6)	7.3 <sup>2</sup>	(0.1)	6.0	(0.5)	31.8 <sup>3</sup>	(0.1)	22.8	(1.1)
<b>100-199% Federal Poverty Line</b>												
Private	42.5 <sup>3</sup>	(0.1)	38.2	(0.7)	36.3 <sup>3</sup>	(0.2)	30.2	(1.1)	45.5 <sup>3</sup>	(0.1)	42.1	(0.8)
ESI	34.6 <sup>3</sup>	(0.1)	30.6	(0.7)	31.4 <sup>3</sup>	(0.2)	26.5	(1.0)	36.2 <sup>3</sup>	(0.1)	32.6	(0.7)
Non-group	7.9	(0.1)	7.6	(0.4)	4.9 <sup>3</sup>	(0.1)	3.7	(0.4)	9.3	(0.1)	9.5	(0.4)
Marketplace	NA	NA	3.2	(0.2)	NA	NA	1.2	(0.2)	NA	NA	4.2	(0.3)
Medicaid	31.2 <sup>3</sup>	(0.1)	33.7	(0.6)	52.4 <sup>3</sup>	(0.2)	58.9	(1.2)	20.7	(0.1)	21.2	(0.6)
Other coverage	3.8 <sup>3</sup>	(0.0)	5.5	(0.4)	2.3	(0.1)	3.2	(0.6)	4.6 <sup>3</sup>	(0.0)	6.6	(0.4)
Uninsured	22.5 <sup>2</sup>	(0.1)	23.7	(0.6)	9.0	(0.1)	8.6	(0.6)	29.2 <sup>3</sup>	(0.1)	31.1	(0.7)
<b>200%+ Federal Poverty Line</b>												
Private	83.1	(0.0)	83.5	(0.3)	82.0	(0.1)	82.6	(0.6)	83.4	(0.1)	83.7	(0.3)
ESI	74.8 <sup>1</sup>	(0.0)	74.0	(0.4)	74.7 <sup>1</sup>	(0.1)	75.8	(0.7)	74.8 <sup>3</sup>	(0.1)	73.4	(0.4)
Non-group	8.3 <sup>3</sup>	(0.0)	9.5	(0.2)	7.3	(0.1)	6.7	(0.4)	8.6 <sup>3</sup>	(0.0)	10.3	(0.3)
Marketplace	NA	NA	2.0	(0.1)	NA	NA	1.0	(0.1)	NA	NA	2.3	(0.1)
Medicaid	5.8 <sup>3</sup>	(0.0)	5.1	(0.2)	11.5 <sup>3</sup>	(0.1)	10.2	(0.4)	4.0 <sup>3</sup>	(0.0)	3.5	(0.1)
Other coverage	2.5 <sup>3</sup>	(0.0)	3.5	(0.2)	2.2 <sup>2</sup>	(0.0)	3.0	(0.3)	2.6 <sup>3</sup>	(0.0)	3.7	(0.2)
Uninsured	8.6 <sup>3</sup>	(0.0)	7.5	(0.2)	4.2 <sup>3</sup>	(0.0)	3.5	(0.3)	10.0 <sup>3</sup>	(0.0)	8.8	(0.2)

ACS, American Community Survey; NHIS, National Health Interview Survey; SE, standard error; ESI, employer-sponsored insurance; NA, not available.

Superscripts 1, 2, and 3 indicate that the difference between the estimate and that for NHIS is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component.

**Table 5c****2014 Current Health Insurance Coverage Estimates for Adults Aged 18-64 by Race and Ethnicity**

Health insurance coverage by race and ethnicity	ACS		NHIS	
	Percent	(SE)	Percent	(SE)
<b>Hispanic or Latino</b>				
Private	49.7 <sup>3</sup>	(0.1)	46.5	(0.8)
ESI	43.6 <sup>3</sup>	(0.1)	39.9	(0.8)
Non-group	6.1	(0.1)	6.6	(0.3)
Marketplace	NA	NA	2.5	(0.2)
Medicaid	15.6 <sup>2</sup>	(0.1)	16.6	(0.5)
Other coverage	2.0 <sup>3</sup>	(0.0)	2.8	(0.2)
Uninsured	32.8 <sup>1</sup>	(0.1)	34.1	(0.7)
<b>Non-Hispanic or Latino: White, single race</b>				
Private	76.8 <sup>3</sup>	(0.1)	75.4	(0.4)
ESI	66.8 <sup>3</sup>	(0.1)	64.7	(0.5)
Non-group	9.9 <sup>3</sup>	(0.0)	10.7	(0.3)
Marketplace	NA	NA	2.4	(0.1)
Medicaid	8.7	(0.0)	8.6	(0.3)
Other coverage	3.2 <sup>3</sup>	(0.0)	4.4	(0.2)
Uninsured	11.4	(0.0)	11.5	(0.3)
<b>Non-Hispanic or Latino: Black, single race</b>				
Private	56.8 <sup>3</sup>	(0.1)	53.8	(0.8)
ESI	50.7 <sup>3</sup>	(0.1)	46.7	(0.8)
Non-group	6.1 <sup>3</sup>	(0.1)	7.1	(0.4)
Marketplace	NA	NA	2.8	(0.2)
Medicaid	19.9 <sup>2</sup>	(0.1)	21.4	(0.6)
Other coverage	4.2 <sup>3</sup>	(0.0)	7.1	(0.4)
Uninsured	19.1 <sup>2</sup>	(0.1)	17.7	(0.6)
<b>Non-Hispanic or Latino: Asian, single race</b>				
Private	74.9	(0.2)	75.0	(1.1)
ESI	61.6	(0.2)	60.3	(1.2)
Non-group	13.3	(0.1)	14.6	(0.8)
Marketplace	NA	NA	4.7	(0.5)
Medicaid	10.2	(0.1)	10.5	(0.7)
Other coverage	1.7 <sup>2</sup>	(0.0)	2.4	(0.3)
Uninsured	13.2	(0.1)	12.1	(0.7)

ACS, American Community Survey; NHIS, National Health Interview Survey; SE, standard error; ESI, employer-sponsored insurance; NA, not available.

Superscripts 1, 2, and 3 indicate that the difference in the estimates for ACS and NHIS is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component.

**Table 5d**  
**2014 Alternative Current Health Insurance Coverage Estimates, Aged 65 and Over**

Health insurance coverage	ACS		NHIS	
	Percent	(SE)	Percent	(SE)
Private	58.5 <sup>3</sup>	(0.1)	43.0	(0.7)
Dual eligible	9.1 <sup>3</sup>	(0.0)	6.7	(0.3)
Medicare only	26.8 <sup>3</sup>	(0.1)	42.9	(0.7)
Other public	4.7 <sup>3</sup>	(0.0)	6.4	(0.4)
Uninsured	0.9	(0.0)	0.8	(0.1)

ACS, American Community Survey; NHIS, National Health Interview Survey; SE, standard error.

Superscripts 1, 2, and 3 indicate that the difference in the estimates for ACS and NHIS is statistically significant at the 10, 5, and 1 percent levels, respectively.

The public coverage estimates for NHIS exclude coverage through the U.S. Department of Veterans Affairs to facilitate comparisons with MEPS estimates. Therefore, the sum of the percentages in the private, public, and uninsured categories for NHIS may not equal 100 percent.

Significance tests were based on estimates with more significant digits than are presented in the table.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component.



**Appendix Table 1**  
**Current Uninsured Estimates, 2000–2014**

Year	All Ages					Ages 18-64					Ages 0-17				
	NHIS		MEPS		ACS	NHIS		MEPS		ACS	NHIS		MEPS		ACS
	Percent	SE	Percent	SE	Percent	Percent	SE	Percent	SE	Percent	Percent	SE	Percent	SE	Percent
2000	14.9	0.22	16.3	0.52	NA	18.6	0.26	20.3	0.59	NA	12.4	0.33	14.2	0.82	NA
2001	14.3	0.23	16.0	0.40	NA	18.3	0.26	20.2	0.49	NA	11.0	0.35	13.1	0.56	NA
2002	14.7	0.22	16.1	0.36	NA	19.0	0.26	20.8	0.45	NA	10.7	0.32	11.9	0.46	NA
2003	14.7	0.23	16.2	0.38	NA	19.3	0.28	21.3	0.48	NA	9.8	0.34	11.1	0.50	NA
2004	14.6	0.21	16.6	0.40	NA	19.3	0.27	21.8	0.50	NA	9.2	0.30	11.4	0.53	NA
2005	14.5	0.22	16.6	0.38	NA	19.3	0.27	22.1	0.49	NA	9.3	0.30	10.8	0.51	NA
2006	15.1	0.26	17.0	0.38	NA	20.0	0.33	22.5	0.49	NA	9.5	0.34	10.9	0.52	NA
2007	14.7	0.26	17.5	0.40	NA	19.6	0.31	22.9	0.48	NA	9.0	0.38	12.3	0.62	NA
2008	14.8	0.25	18.0	0.45	NA	19.9	0.31	23.7	0.57	NA	9.0	0.40	12.6	0.67	NA
2009	15.4	0.25	17.8	0.48	15.1	21.2	0.32	24.3	0.61	20.6	8.2	0.36	10.0	0.56	8.6
2010	16.0	0.26	17.0	0.44	15.5	22.3	0.33	23.3	0.61	21.4	7.8	0.30	9.4	0.48	8.0
2011	15.1	0.21	16.3	0.39	15.1	21.2	0.29	22.5	0.55	21.0	7.0	0.26	8.9	0.48	7.5
2012	14.7	0.21	16.5	0.45	14.8	20.9	0.29	23.1	0.64	20.6	6.6	0.26	8.4	0.52	7.2
2013	14.5	0.22	16.8	0.48	14.5	20.5	0.29	23.8	0.66	20.3	6.6	0.26	8.2	0.49	7.1
2014	11.5	0.19	NA	NA	NA	16.3	0.26	NA	NA	NA	5.4	0.23	NA	NA	NA

NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; ACS, American Community Survey; SE, standard error; NA, not available.

SOURCE: U.S. Census Bureau, American Community Survey; National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

**Appendix Table 2**

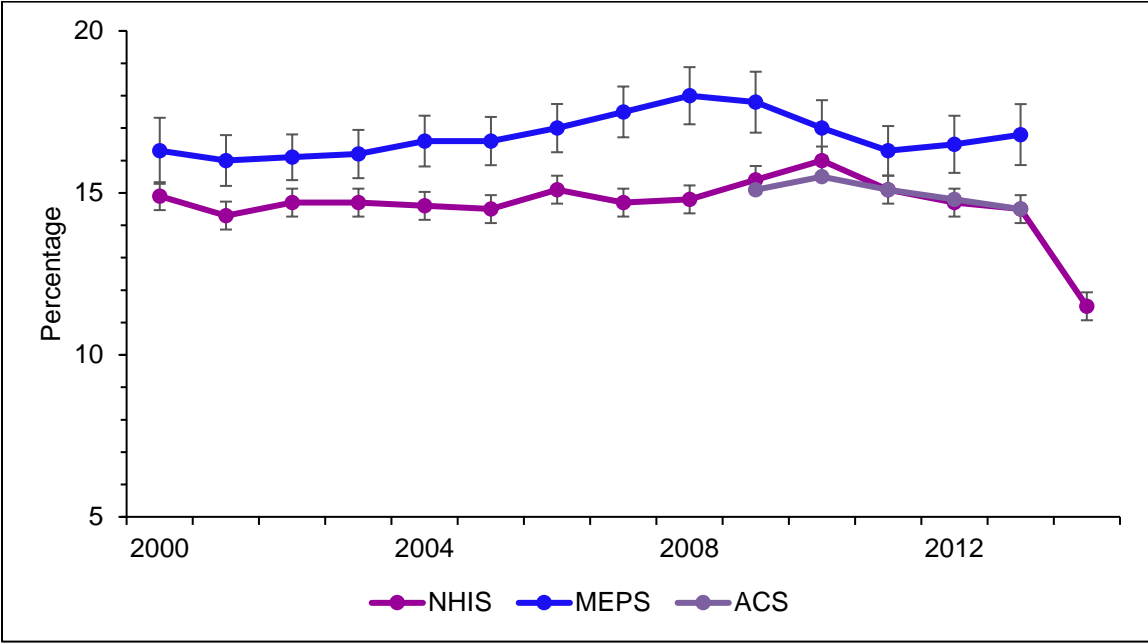
**Estimates for Full Year Uninsured (MEPS) and Uninsured More than One Year (NHIS), 2000–2014**

Year	All Ages				Ages 18-64				Ages 0-17			
	NHIS		MEPS		NHIS		MEPS		NHIS		MEPS	
	Percent	SE	Percent	SE	Percent	SE	Percent	SE	Percent	SE	Percent	SE
2000	9.4	0.18	11.7	0.44	12.2	0.22	15.0	0.53	6.9	0.24	9.2	0.74
2001	9.1	0.17	11.7	0.34	12.0	0.21	15.2	0.44	6.2	0.26	8.6	0.48
2002	9.1	0.16	11.8	0.33	12.2	0.20	15.7	0.43	5.6	0.23	7.7	0.43
2003	9.9	0.18	12.1	0.32	13.6	0.24	16.4	0.44	5.3	0.24	7.1	0.43
2004	10.1	0.17	12.3	0.36	13.8	0.22	16.7	0.47	5.4	0.25	7.3	0.44
2005	10.1	0.18	12.4	0.33	13.9	0.23	17.1	0.46	5.3	0.24	6.4	0.42
2006	10.5	0.22	12.6	0.34	14.6	0.29	17.4	0.46	5.2	0.26	6.4	0.43
2007	10.3	0.20	13.3	0.37	14.3	0.27	18.0	0.46	5.0	0.26	7.9	0.55
2008	10.6	0.21	13.4	0.40	14.6	0.27	18.4	0.54	5.6	0.35	7.5	0.61
2009	10.9	0.21	13.5	0.44	15.4	0.27	19.1	0.60	4.8	0.28	6.3	0.48
2010	11.7	0.20	13.1	0.41	16.8	0.28	18.5	0.58	4.5	0.20	6.0	0.42
2011	11.2	0.18	12.5	0.37	16.3	0.26	17.8	0.54	3.7	0.18	5.7	0.42
2012	11.0	0.19	12.7	0.41	16.2	0.27	18.5	0.61	3.6	0.18	5.0	0.46
2013	10.7	0.19	12.8	0.44	15.7	0.26	18.8	0.62	3.6	0.20	4.8	0.45
2014	8.4	0.17	NA	NA	12.3	0.24	NA	NA	3.0	0.17	NA	NA

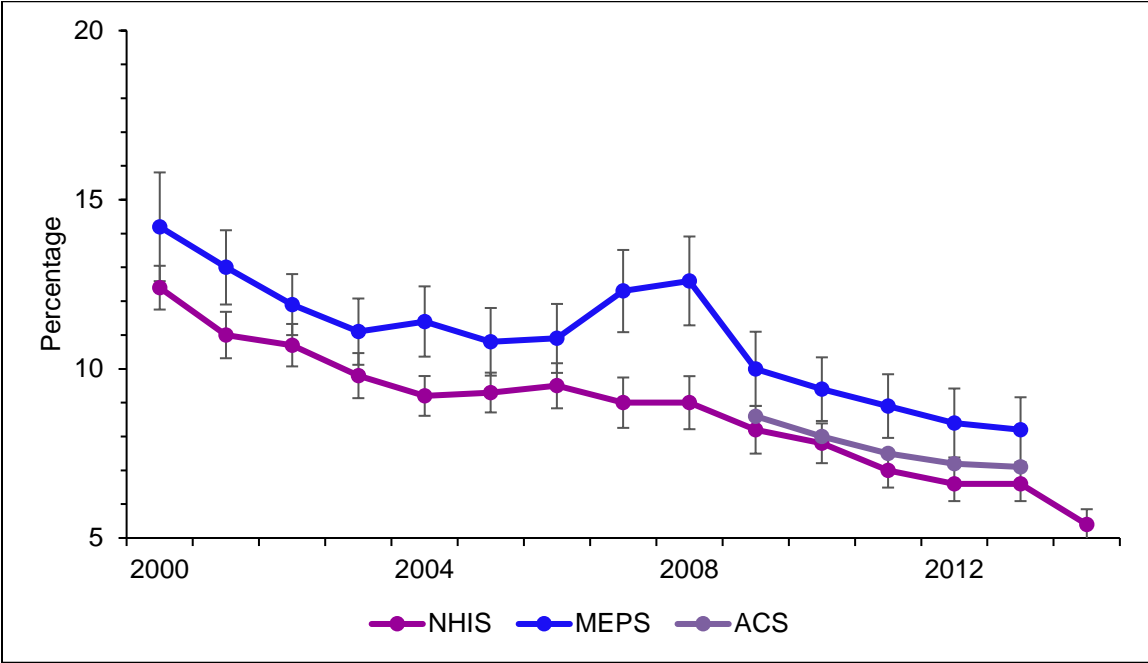
NHIS, National Health Interview Survey; MEPS, Medical Expenditure Panel Survey; SE, standard error; NA, not available.

SOURCE: National Center for Health Statistics, National Health Interview Survey, Family Core component; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Household Component.

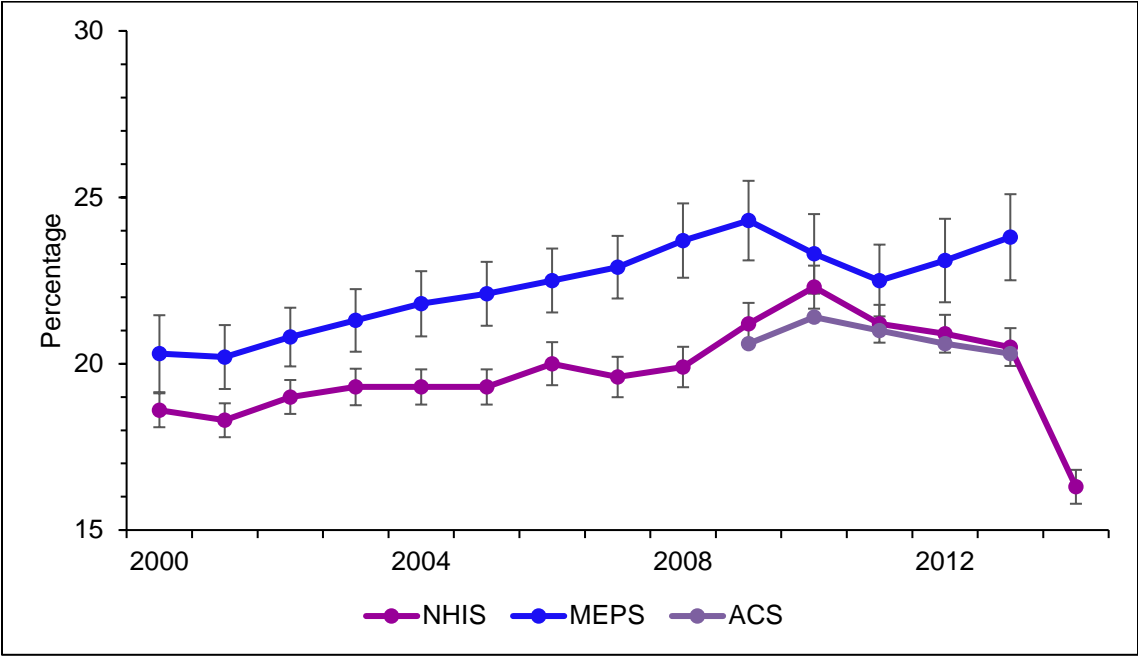
**Figure 1**  
**Current Uninsured: All Ages, 2000-2014**



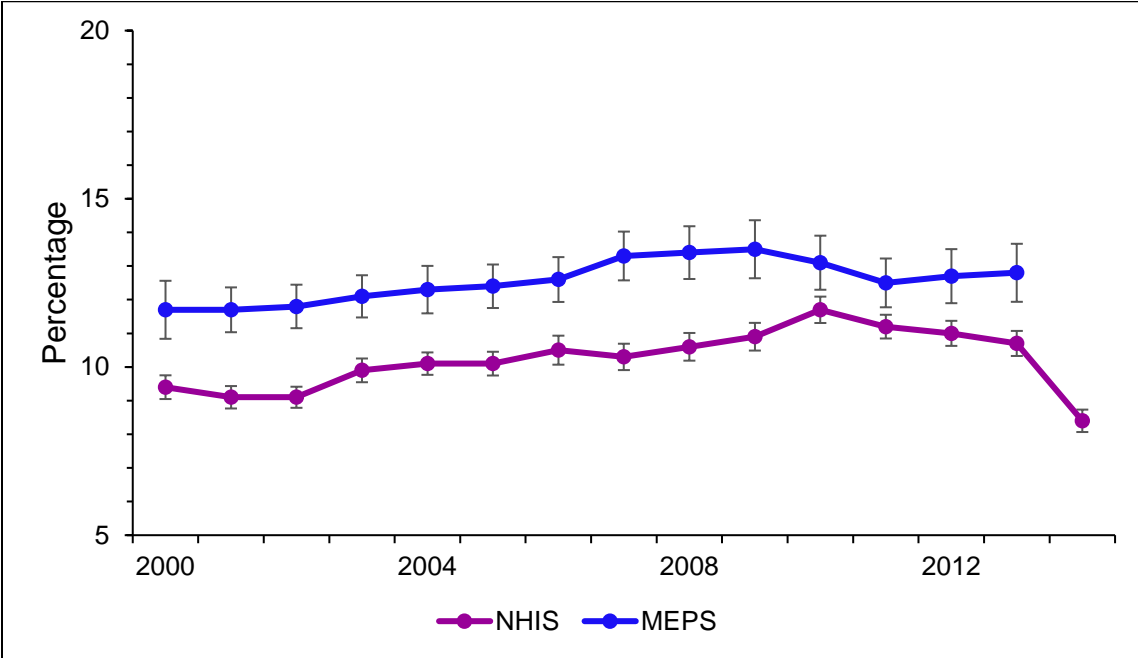
**Figure 2**  
**Current Uninsured: Ages 0-17, 2000-2014**



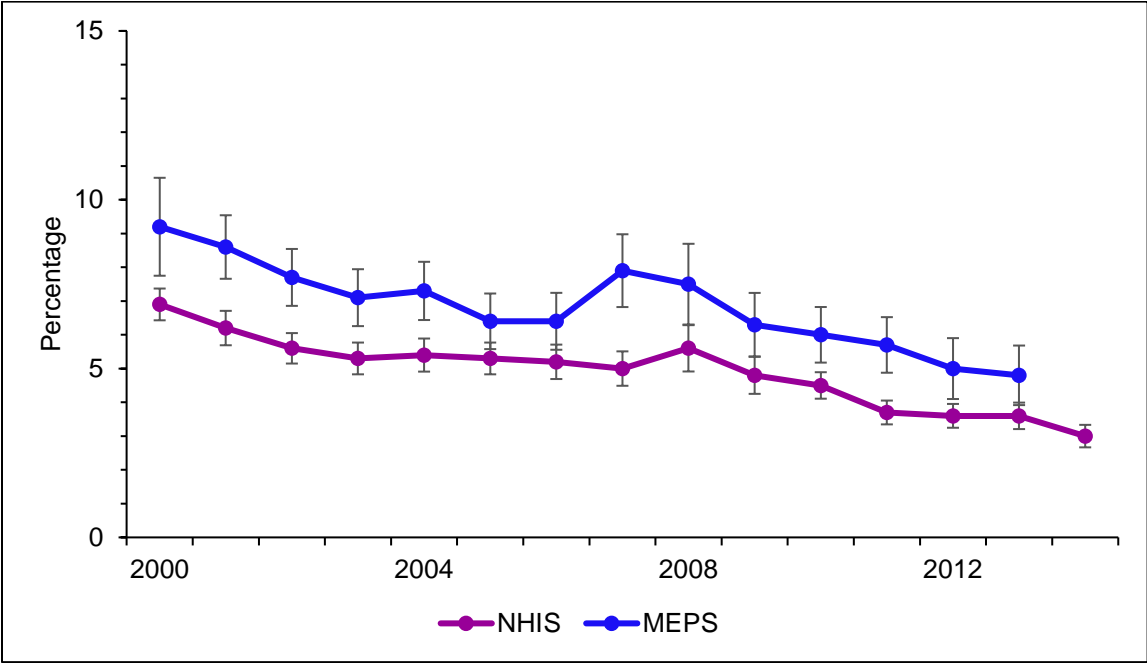
**Figure 3**  
**Current Uninsured: Ages 18-64, 2000-2014**



**Figure 4**  
**Full-year Uninsured: All ages, 2000-2014**



**Figure 5**  
**Full-year Uninsured: Ages 0-17, 2000-2014**



**Figure 6**  
**Full-year Uninsured: Ages 18-64, 2000-2014**

