



National Center for Health Statistics


Impact of Medicare and Medicaid Probe Questions on Health Insurance Estimates from the National Health Interview Survey, 2005

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Introduction

The National Health Interview Survey (NHIS), a survey of the noninstitutionalized civilian population of the United States, has been an important source of information about health and health care in the United States since it was first conducted in 1957. Health insurance information has been collected by NHIS since 1960 and continuously since 1989. The health insurance section of the 2005 NHIS has a full range of data items addressing health insurance coverage. Given the ever-changing nature of the U.S. population and private and public health insurance coverage, the health insurance section of the NHIS questionnaire has periodically been revised. This report addresses the impact of changes made in mid-2004 to improve information on Medicare and Medicaid coverage. The data used in this report are from the final data release of the 2005 NHIS.

Methods

The health insurance section of NHIS collects detailed information on both private health insurance plans and public health coverage programs. For a complete discussion of items in the health insurance section of NHIS, see the [2005 Survey Description Document](#)  [PDF – 544 KB].

The terms HIKIND, MCAREPRB, and MCAIDPRB refer to health insurance questions on NHIS and are provided here to assist microdata file users in locating the appropriate variable names. The data on type of health insurance are collected through the HIKIND (type of coverage), MCAREPRB (Medicare probe) and MCAIDPRB (Medicaid probe) questions. The Medicare and Medicaid probes are additional questions designed to improve reporting of Medicare and Medicaid coverage. These two probe questions were added to the health insurance section of NHIS beginning with quarter 3 of 2004. The HIKIND (type of coverage) question is: “What kind of health insurance or health care coverage does {person} 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.” Respondents are shown a card with the following entries and asked to indicate all that apply: Private health insurance, Medicare, Medi-gap, Medicaid, SCHIP, military health care, Indian Health Service, state-sponsored health plan, other government program, single service plan, or no coverage of any type. Respondents are also shown a second card that shows the name(s) of the Medicaid, SCHIP, and other state-sponsored health plans that are specific to their state of residence to aid in a respondent’s recall of these public programs.

The Medicare probe was asked of persons 65 years and over who had not indicated that they had Medicare through the type of coverage question. The Medicare probe question is: “People covered by Medicare have a card which looks like this. {Are/Is} {person} covered by Medicare?” At the same time that this question is being asked, respondents are shown a facsimile of a Medicare card. The Medicaid probe was asked of persons under age 65 who had not indicated any type of coverage through the type-of-coverage question. The Medicaid probe question is: “There is a program called Medicaid that pays for health care for persons in need. In this state it is also called {state name}. {Are/Is} {person} covered by Medicaid?” Respondents who originally classified themselves as uninsured, but who subsequently answered “yes” to the appropriate probe question, were classified as insured.

Two sets of estimates are presented in this report. Method 1 estimates are based solely on one question: type of coverage. Method 2 estimates are based on responses to three questions: type of coverage, the Medicare probe, and the Medicaid probe. Of the 1,609 people (unweighted) who were eligible to receive the Medicare probe question in 2005, 57.5% indicated

that they were covered by Medicare. Among persons eligible to receive the Medicare probe question, approximately 78% were considered insured by coverage other than Medicare, 17% were uninsured, and 5% were not able to be classified as to their coverage (Table 1 [\[PDF – 38 KB\]](#)). Among persons who responded “yes” to the Medicare probe, 64% were covered by private health insurance and 9% were covered by Medicaid. Among those who responded “no” to the Medicare probe, 53% were covered by private health insurance and more than 18% were covered by Medicaid. Of the 15,748 people (unweighted) who were eligible to receive the Medicaid probe question, 3.6% indicated that they were covered by Medicaid. There is no impact of the two additional questions on the estimates for private coverage; therefore, estimates of private health insurance coverage are not shown here.

Estimates shown in Tables 2 [\[PDF – 38 KB\]](#) and 3 [\[PDF – 38 KB\]](#) were calculated using the survey weights, which are calibrated to census totals for sex, age, and race/ethnicity of the U.S. civilian noninstitutionalized population. The weights for 2005 NHIS data were derived from 2000 census-based population estimates (1). The NHIS weighting procedure has been described in more detail in the [Survey Description Document \[PDF – 544 KB\]](#).

Point estimates and estimates of their variances were calculated using SUDAAN software (2) to account for the complex sample design of NHIS. The Taylor series linearization method was chosen for variance estimation. Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. Terms such as “greater than” or “less than” indicate a statistically significant difference. Terms such as “similar” and “no difference” indicate that the estimates being compared were not significantly different. Lack of comments regarding the difference between any two estimates does not necessarily mean that the difference was tested and found to be not significant. Estimates that do not meet the NCHS standard of having a relative standard error of 30% or less, and have a standard error less than or equal to 50% are preceded by an asterisk (*).

Results

For 2005, the estimates for uninsured persons based on Method 1 were all greater than or equal to those based on Method 2 (Tables 2 [\[PDF – 38 KB\]](#) and 3 [\[PDF – 38 KB\]](#)). However, the differences for adults 18-64 years of age were not statistically significant. Among poor children, there was an appreciable decrease in the uninsured estimate from 16.3% to 13.3% using Method 2.

In 2005, 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 Method 2 (Table 2 [\[PDF – 38 KB\]](#)). The increase in Medicaid rates among children and adults aged 18 to 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% to 95.4% with the addition of the Medicare probe question (Table 3 [\[PDF – 38 KB\]](#)). Increases in Medicare rates occurred among all race and ethnicity groups shown in Table 3 [\[PDF – 38 KB\]](#) and across all poverty groups.

Discussion

These results indicate that the NHIS Medicare and Medicaid probe questions moved the estimates in the anticipated direction, although the differences for the uninsured were not statistically significant for person under 65 years of age. Estimates of Medicare coverage among adults age 65 years and over were substantially changed due to affirmative responses to the Medicare probe question for more than one-half of the respondents initially reporting no Medicare. For persons 65 years of age and over, the probe question is improving their report of Medicare coverage. However, a significant portion of these persons had already reported some type of coverage other than Medicare and would not have been classified as uninsured using Method 1. The use of the Medicaid and Medicare probe questions helps ensure that NHIS produces the highest quality health insurance coverage estimates possible.

References

1. National Center for Health Statistics (2005). [Survey Description Document, National Health Interview Survey, 2005 \[PDF – 544 KB\]](#). National Center for Health Statistics, Centers for Disease Control and Prevention, Hyattsville, MD.
2. Research Triangle Institute (2004). SUDAAN (Release 9.0.1) [Computer Software]. Research Triangle Park, NC: Research Triangle Institute.

3. National Center for Health Statistics. (2005) Health United States, 2005 With Chartbook on Trends in the Health of Americans. Hyattsville, MD.
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