The Medicaid Undercount in the Current Population Survey

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Overview of Presentation Topics

• Background
• Estimating the undercount in the Current Population Survey Annual Social and Economic Supplement (CPS ASEC)
• Response error in the CPS ASEC
• Conclusions
Background

• Health insurance data collected by the CPS ASEC is used to estimate the number, percentage and characteristics of the uninsured population.

• CPS ASEC estimates of Medicaid enrollment are consistently lower than the enrollment rates reported in the Medicaid Statistical Information System (MSIS) database.
Background

• The SNACC project and the Medicaid undercount
• The SNACC project collaborators included:
  – The University of Minnesota's State Health Access Data Assistance Center (SHADAC)
  – The National Center for Health Statistics (NCHS)
  – The Agency for Healthcare Research and Quality (AHRQ)
  – The U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation (ASPE)
  – The Centers for Medicare and Medicaid Services (CMS)
  – The U.S. Census Bureau
• Our research expands analysis of the undercount to CY 2006-2008.
Data and Methods

• CPS ASEC 2007-2009
• MSIS 2006-2008

• Medicaid undercount
  – Enrollment totals in CPS ASEC universe compared to MSIS universe

• Response error
  – Linked MSIS-CPS ASEC data
## Differences in MSIS and CPS ASEC Universes

<table>
<thead>
<tr>
<th>MSIS</th>
<th>CPS ASEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data reported in fiscal quarters</td>
<td>Data reported for previous calendar year</td>
</tr>
<tr>
<td>Data reported by case</td>
<td>Data reported by person</td>
</tr>
<tr>
<td>Data includes institutionalized population</td>
<td>Data does not include institutionalized population</td>
</tr>
<tr>
<td>Benefits may be full or restricted to particular types of services</td>
<td>Data on level of benefits (full or restricted) not collected</td>
</tr>
<tr>
<td>MSIS data is point-in-time</td>
<td>CPS ASEC data retrospective but may be reported as point-in-time</td>
</tr>
</tbody>
</table>
Undercount Methodologies

• Raw measures:
  – Cases with full or partial benefits
  – Medicaid participants residing in institutional group quarters
  – Duplicates arising from individuals having multiple accounts

• Adjusted measures:
  – Limited to unduplicated
  – Non-institutionalized participants
  – Receiving full Medicaid benefits
Medicaid Undercount in CPS ASEC, 2000-2008

Sources: SNACC (2010) for years 2000-2005; authors’ computations for years 2006-2008; CPS ASEC and MSIS.
# Measuring Response Error in the CPS ASEC

<table>
<thead>
<tr>
<th>MSIS</th>
<th>CPS ASEC</th>
<th>Medicaid Coverage in MSIS and CPS ASEC</th>
<th>False Negative Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Medicaid Coverage in MSIS and CPS ASEC</td>
<td>False Negative Error</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>False Positive Error</td>
<td>No Medicaid Coverage</td>
</tr>
</tbody>
</table>
Percentage Reporting False Negative Errors, CY 2000-2008

Sources: SNACC (2010) for years 2000-2005; authors’ computations for years 2006-2008; CPS ASEC and MSIS.
False Negative Errors

• False negative errors are the largest contributor to the undercount in CPS ASEC.

• About 80 percent of these false negative errors come from explicitly reported insurance status in the CPS ASEC, while the rest result from data imputation procedures.

• In the false negative population, about 60 percent report having some other form of insurance.
False Negative Errors by Percent Federal Poverty Level (FPL), CY 2008

<table>
<thead>
<tr>
<th>Percent poverty (FPL)</th>
<th>Percent reporting no Medicaid coverage and linked to MSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 49%</td>
<td>29%</td>
</tr>
<tr>
<td>50 - 99%</td>
<td>30%</td>
</tr>
<tr>
<td>100 - 149%</td>
<td>38%</td>
</tr>
<tr>
<td>150 - 199%</td>
<td>49%</td>
</tr>
<tr>
<td>200% +</td>
<td>56%</td>
</tr>
</tbody>
</table>

Sources: Authors’ computations, CPS ASEC and MSIS 2008.
False Negative Errors by Length of Enrollment in Medicaid, CY 2008

Days enrolled in Medicaid

- >180 days: 35%
- 61 - 180 days: 55%
- <61 days: 75%

Percent reporting no Medicaid coverage and linked to MSIS (only explicitly reported enrollment status included)

Sources: Authors’ computations, CPS ASEC and MSIS 2008.
False Negative Errors by Enrollment in Survey Year (2009), CY 2008

Enrolled in survey year?

- yes: 33%
- no: 59%

Percent reporting no Medicaid coverage and linked to MSIS (only explicitly reported enrollment status included)

Sources: Authors’ computations, CPS ASEC and MSIS 2008.
Percentage Reporting False Positive Errors, CY 2000-2008

Sources: SNACC (2010) for years 2000-2005; authors’ computations for years 2006-2008; CPS ASEC and MSIS.
False Positive Errors by Percent Federal Poverty Level (FPL), CY 2008

Percent reporting Medicaid coverage and not linked to MSIS (only explicitly reported status included)

Sources: Authors’ computations, CPS ASEC and MSIS 2008.
Conclusions

• The CPS ASEC undercount has declined slightly for CY 2006-2008.
• False negative and false positive errors have remained stable in CY 2000-2008.
• Poverty is associated with both types of errors in reporting of Medicaid coverage.
• Response error in the CPS ASEC impacts estimates of the uninsured population.
• As Medicaid enrollment expands with the Patient Protection and Affordable Care Act, understanding the Medicaid undercount in surveys is increasingly important for better assessing estimates of the uninsured population.
Thank You!

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