Trends

Why Millions Of Children Eligible For Medicaid And SCHIP Are Uninsured: Poor Retention Versus Poor Take-Up

Policymakers do not have to find eligible children to get them enrolled; public insurance programs need to keep them enrolled.

by Benjamin D. Sommers

ABSTRACT: More than two-thirds of uninsured U.S. children are eligible for public coverage, and most current policy debate assumes that this is largely attributable to poor take-up. This paper explores the contribution of poor retention in Medicaid and the State Children's Health Insurance Program (SCHIP) to this phenomenon. The results indicate that one-third of all uninsured children in 2006 had been enrolled in Medicaid or SCHIP the previous year. Among those uninsured but eligible for public coverage in 2006, at least 42 percent had been enrolled in Medicaid or SCHIP the previous year. Both of these measures of disenrollment have increased since 2000. [Health Affairs 26, no. 5 (2007): w560–w567 (published online 26 July 2007; 10.1377/hlthaff.26.5.w560)]

In the current debate over reauthorization for the State Children's Health Insurance Program (SCHIP), the following statement by Sen. Orrin Hatch (R-UT) expresses a common sentiment: “The first priority facing us is how to ensure that all eligible children are covered. Hand in hand, is the need to improve outreach efforts.”

Similar statements have been voiced in numerous research articles and in state and federal policy discussions. The basis for this concern is the well-documented phenomenon of uninsured children who are eligible for SCHIP and Medicaid. Researchers have estimated that in 2002, more than 60 percent of all uninsured children were eligible for public coverage, a figure that climbed to 74 percent in 2005. However, many policymakers and analysts have made a leap in assuming that the issue is primarily one of take-up—that is, whether eligible children ever enroll in the program. In fact, a growing body of literature documents poor retention in public insurance, which suggests that dropout from Medicaid and SCHIP—as well as transient gaps in coverage (“churning”)—might also be a driving factor in this problem.

Why do eligible children leave public programs? If families do not complete the eligibility renewal process, which occurs once or twice annually depending on the state, then their children “disenroll”—a loss of coverage that is often completely unintentional. Disenrollment that leads to becoming uninsured (designated “dropout” in previous studies) is of concern, given the large body of research indicating that insurance coverage is critical to children’s health. Chronically uninsured chil-
dren, as well as those experiencing coverage lapses, have lower rates of check-ups and vaccinations, experience more illness-related restrictions on activities, and are more likely to forgo needed care when sick, compared with children whose insurance coverage stays constant.

But a key remaining question is why there are so many Medicaid- and SCHIP-eligible children who are uninsured. This paper’s objective is to provide updated evidence through 2006 on the presence of eligible but uninsured children and to determine the relative contributions of poor take-up and poor retention to this policy problem. These data are critical to the current debate over SCHIP reauthorization, since poor retention and poor take-up require distinct policy remedies.

Additionally, by using six years of data, this analysis has an adequate sample to compare state-specific outcomes. State-level estimates on dropout may inform ongoing efforts by several states—including Massachusetts, California, and Pennsylvania—that are considering major expansions in children’s health insurance.

**Study Data And Methods**

- **Data.** Data on insurance, demographics, and income came from the Current Population Survey (CPS) March Supplements, 2000–2006, using newly revised 2005–2006 data. The CPS is a nationally representative survey conducted by the U.S. Census Bureau. The sampling approach uses a cycle of four months on, eight months off, and four months on. Thus, in a given March Supplement, half of the households—minus attrition—were surveyed the previous March. Two-year linked observations, using household and personal identification numbers, were constructed following the approach used in previous disenrollment analyses. Thus, everyone in the sample was surveyed in two consecutive years (years 1 and 2). The sample (N = 9,006) comprised all children (ages 0–17) who did not have any health insurance during year 2.

- **Methods.** Each child’s eligibility for public insurance was imputed based on household income and the state- and year-specific threshold percentage of the federal poverty level for SCHIP, the program with more generous eligibility criteria. Eligibility also was adjusted for immigration status, within the limitations of the CPS data, which report citizenship but not permanent residency status. To avoid falsely attributing eligibility to non–permanent residents, any non-citizens who had never been in Medicaid or SCHIP at any point in the study were deemed ineligible. Secondary analyses without this exclusion were conducted, to assess the robustness of the results.

Survey-weighted means were calculated for the two main outcome measures of disenrollment: The first outcome measure is the proportion of all uninsured children in year 2 (“all uninsured”) who had been enrolled in Medicaid or SCHIP during year 1. These results indicate the degree to which Medicaid/SCHIP disenrollment contributes to the overall number of uninsured U.S. children. This analysis was repeated, stratified by year.

The second outcome measure requires identifying the subset of children who were uninsured during year 2 despite being eligible for public insurance (“eligible but uninsured”) and then calculating what proportion had been enrolled in Medicaid or SCHIP during year 1. This analysis was repeated, stratified by year and state. Although some state subsamples are small and their statistics accordingly less precise, the Census Bureau considers CPS state-level estimates reliable when pooling two or more years together, and this paper’s analysis uses six years.

To interpret this second outcome measure, note that there is a simple relationship between take-up and retention among this pop-
ulation. All children who are eligible but uninsured fit into one of two possible categories: (1) children who were never enrolled in public coverage, and (2) those who were enrolled in Medicaid/SCHIP at some point but later lost coverage. Therefore, outcome measure 2 indicates the relative contributions of poor take-up versus poor retention among eligible but uninsured children. However, since the data set only documents coverage over a two-year period, this measure underestimates dropout if some children dropped out of public coverage more than two years ago.

Chi-square tests were used to compare outcome differences across states, and a Wilcoxon-based test was used to assess for time trends.

Although the CPS has the disadvantage of its known undercount of Medicaid enrollment, it offers two main advantages that make it worthy of analysis. First, it is available in a timely manner, offering data as recent as 2006. Second, it allows for state-level estimates. I discuss the likely effect of the Medicaid undercount on the results later.

All analyses were performed using Stata 7.0, incorporating March Supplement survey weights and clustering at the household level to adjust for the nonindependence of children living in the same home.

**Study Results**

Over the full study period, 62.2 percent (95 percent confidence interval [CI] = 60.5, 63.9) of all uninsured children were eligible for Medicaid or SCHIP. Let us now examine the disenrollment outcome measures.

**Outcome measure 1:** How many currently uninsured children had been covered by Medicaid or SCHIP during the previous year? Over the full study period, 25.7 percent (95% CI: 24.2, 27.2) of all children without health insurance in year 2 had been covered by public insurance during year 1. This total represented 4.7 percent in SCHIP and 21.0 percent in Medicaid, although the 2000 CPS did not distinguish between the two programs.

Exhibit 1 presents estimates of this outcome by year. Among all uninsured children, the proportion enrolled in public programs in the previous year rose nearly thirteen percentage points from 2001 to 2006, a statistically significant trend (p < 0.01).

**Outcome measure 2:** Among uninsured children who are eligible for Medicaid or SCHIP, is the lack of coverage due to poor retention or poor take-up? Over the full study period, 34.1 percent (95% CI: 32.0, 36.2) of uninsured-but-eligible children in year 2 had lost public coverage during year 1. This total represented 5.7 percent for SCHIP and 28.4 percent for

---

**EXHIBIT 1**

Percentage Of All Uninsured Children Who Had Been In Medicaid Or The State Children’s Health Insurance Program (SCHIP) The Previous Year, 2001–2006

<table>
<thead>
<tr>
<th>Percent</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Author’s analysis of 2000–2006 linked samples from the Current Population Survey March Supplement.

**Notes:** Sample (N = 9,006) consists of all children who were uninsured during year 2 in the survey. “Percentage” refers to the fraction of these children who reported Medicaid or SCHIP coverage during year 1 in the survey.
Medicaid. Exhibit 2 presents these figures by year. Again, there has been a statistically significant trend upward since 2000 ($p < 0.01$).

Exhibit 3 presents the results by state, organized to highlight the comparison inherent in these statistics. Since the children in this analysis were uninsured but eligible for public coverage, there are only two possible causes for their lack of insurance: They were never enrolled (poor take-up), or they dropped out (poor retention). The estimates show wide state-to-state variation, which is only partially attributable to some states’ small subsample sizes. Delaware and New York have statistically significant higher rates of dropout in this population than the rest of the country, reflecting poor retention. Colorado and Utah have statistically significant lower rates of dropout, indicating that the eligible but uninsured children in those states are a result primarily of poor take-up.

**Discussion**

Poor retention in Medicaid and SCHIP plays a critical role in the ongoing presence of uninsured children in the United States. In 2006, one-third of all uninsured children had lost Medicaid or SCHIP coverage the previous year. Quite simply, this means that if public programs retained all children who are enrolled (and have no alternative coverage) in a given year, the number of uninsured U.S. children would fall by one-third.

Furthermore, within the subset of uninsured children eligible for public coverage in 2006, more than two in five had dropped out of Medicaid or SCHIP within the previous year. Limitations in the data suggest that if anything, this underestimates the extent of dropout as a cause of uninsurance among children. The implication is clear: Policymakers do not have to find eligible children to get them enrolled. Rather, for many of these children, public insurance programs simply need to keep them enrolled. Furthermore, programs need to reenroll children who should not have lost coverage in the first place. It is not accurate to describe the presence of eligible but uninsured children as simply a problem of take-up; it is equally a problem of retention.

The results also demonstrate that retention is a growing problem. Both disenrollment measures have increased significantly since 2000. This likely has occurred for several reasons. State eligibility criteria became more generous during this period, which means that...
more children now can potentially enroll—and subsequently disenroll—from public insurance programs.

In addition, during this period, states took steps that intentionally or unintentionally exacerbated dropout. In particular, the majority of states have established separate SCHIP programs rather than using SCHIP funds to expand their existing Medicaid programs. As of 2000, thirty-three states administered separate CHIP programs; since then, Maryland and South Dakota launched separate programs in 2001, and Idaho did so in 2004.11 Running a separate program—a more complex administrative structure—has been linked to significantly higher dropout rates.12 Furthermore, several states have responded to budget difficulties by making the renewal process more cumbersome or by increasing SCHIP premiums, both of which may exacerbate dropout.13

Unfortunately, the trend of increasing dropout is likely to accelerate because of the new 2006 federal requirement of increased citizenship documentation for Medicaid renewal. Preliminary evidence suggests that the requirement, which greatly complicates the

---

**EXHIBIT 3**

Percentage Of Currently Eligible But Uninsured Children Who Dropped Out Of Medicaid Or The State Children’s Health Insurance Program (SCHIP) The Previous Year, By State, 2000–2006

<table>
<thead>
<tr>
<th>States with poor retention</th>
<th>Percent</th>
<th>SE</th>
<th>Number</th>
<th>States with poor take-up</th>
<th>Percent</th>
<th>SE</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEa</td>
<td>67.8</td>
<td>10.2</td>
<td>62</td>
<td>NE</td>
<td>16.3</td>
<td>7.3</td>
<td>44</td>
</tr>
<tr>
<td>SD</td>
<td>50.9</td>
<td>12.3</td>
<td>37</td>
<td>UTb</td>
<td>17.4</td>
<td>5.5</td>
<td>107</td>
</tr>
<tr>
<td>ID</td>
<td>50.7</td>
<td>10.3</td>
<td>69</td>
<td>CA</td>
<td>18.4</td>
<td>6.0</td>
<td>101</td>
</tr>
<tr>
<td>SC</td>
<td>49.2</td>
<td>12.0</td>
<td>30</td>
<td>VT</td>
<td>20.9</td>
<td>10.4</td>
<td>23</td>
</tr>
<tr>
<td>TN</td>
<td>48.7</td>
<td>13.2</td>
<td>24</td>
<td>KS</td>
<td>21.3</td>
<td>8.1</td>
<td>43</td>
</tr>
<tr>
<td>DC</td>
<td>47.3</td>
<td>13.3</td>
<td>32</td>
<td>WA</td>
<td>22.8</td>
<td>7.6</td>
<td>61</td>
</tr>
<tr>
<td>GA</td>
<td>45.8</td>
<td>8.4</td>
<td>90</td>
<td>OH</td>
<td>23.5</td>
<td>5.9</td>
<td>117</td>
</tr>
<tr>
<td>NYb</td>
<td>45.7</td>
<td>4.1</td>
<td>275</td>
<td>AR</td>
<td>23.7</td>
<td>7.4</td>
<td>62</td>
</tr>
<tr>
<td>MD</td>
<td>45.3</td>
<td>9.9</td>
<td>70</td>
<td>WI</td>
<td>24.2</td>
<td>9.6</td>
<td>45</td>
</tr>
<tr>
<td>AL</td>
<td>45.2</td>
<td>11.2</td>
<td>40</td>
<td>CT</td>
<td>24.9</td>
<td>7.0</td>
<td>73</td>
</tr>
<tr>
<td>OR</td>
<td>45.2</td>
<td>10.9</td>
<td>74</td>
<td>MA</td>
<td>25.0</td>
<td>6.8</td>
<td>74</td>
</tr>
<tr>
<td>MI</td>
<td>44.0</td>
<td>7.4</td>
<td>87</td>
<td>NH</td>
<td>25.1</td>
<td>12.4</td>
<td>48</td>
</tr>
<tr>
<td>AK</td>
<td>42.9</td>
<td>12.3</td>
<td>41</td>
<td>IN</td>
<td>25.2</td>
<td>10.2</td>
<td>108</td>
</tr>
<tr>
<td>WI</td>
<td>42.5</td>
<td>12.3</td>
<td>53</td>
<td>PA</td>
<td>26.2</td>
<td>5.9</td>
<td>177</td>
</tr>
<tr>
<td>CT</td>
<td>42.2</td>
<td>8.5</td>
<td>75</td>
<td>NJ</td>
<td>27.3</td>
<td>4.8</td>
<td>169</td>
</tr>
<tr>
<td>MO</td>
<td>40.3</td>
<td>9.7</td>
<td>71</td>
<td>IA</td>
<td>27.6</td>
<td>9.2</td>
<td>46</td>
</tr>
<tr>
<td>LA</td>
<td>40.0</td>
<td>7.4</td>
<td>71</td>
<td>NV</td>
<td>27.6</td>
<td>6.2</td>
<td>135</td>
</tr>
<tr>
<td>NC</td>
<td>39.9</td>
<td>6.7</td>
<td>130</td>
<td>ND</td>
<td>29.0</td>
<td>14.0</td>
<td>19</td>
</tr>
<tr>
<td>MT</td>
<td>39.7</td>
<td>11.3</td>
<td>43</td>
<td>IL</td>
<td>31.4</td>
<td>5.1</td>
<td>161</td>
</tr>
<tr>
<td>WV</td>
<td>38.6</td>
<td>10.4</td>
<td>47</td>
<td>TX</td>
<td>31.8</td>
<td>2.8</td>
<td>655</td>
</tr>
<tr>
<td>ME</td>
<td>38.4</td>
<td>10.9</td>
<td>48</td>
<td>MS</td>
<td>33.1</td>
<td>8.5</td>
<td>59</td>
</tr>
<tr>
<td>RI</td>
<td>38.1</td>
<td>9.9</td>
<td>49</td>
<td>MN</td>
<td>33.3</td>
<td>10.0</td>
<td>69</td>
</tr>
<tr>
<td>OK</td>
<td>36.1</td>
<td>7.5</td>
<td>75</td>
<td>AZ</td>
<td>34.0</td>
<td>7.0</td>
<td>117</td>
</tr>
<tr>
<td>HI</td>
<td>35.8</td>
<td>12.5</td>
<td>40</td>
<td>CA</td>
<td>34.5</td>
<td>2.5</td>
<td>826</td>
</tr>
<tr>
<td>KY</td>
<td>35.1</td>
<td>9.8</td>
<td>57</td>
<td>FL</td>
<td>34.7</td>
<td>4.2</td>
<td>334</td>
</tr>
<tr>
<td>NM</td>
<td>34.9</td>
<td>6.9</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** Author’s analysis of 2000–2006 linked samples from the Current Population Survey March Supplement.

**NOTES:** Sample (N = 5,458) consists of all children who were uninsured during year 2 in the survey and eligible for public coverage. “Percentage” refers to the fraction of these children who reported Medicaid or SCHIP coverage during year 1 in the survey. SE is standard error of mean. These figures only compare the relative impact of take-up and retention within each state, and do not compare the total number of uninsured children in each state.

a Significantly higher rates than the rest of the country, by Pearson chi-square test (p < 0.05).

b Significantly lower rates than the rest of the country, by Pearson chi-square test (p < 0.05).
renewal process, is already leading to decreases in public coverage.14

Study limitations. This analysis has several limitations. The CPS enables adjustment only for immigration based on citizenship. By classifying as ineligible all noncitizens who did not report any public coverage during their two years in the study, this provides a conservative estimate of eligibility among uninsured people, since some noncitizens are indeed eligible. Analysis with and without labeling noncitizens as ineligible suggests that this has a fairly small effect, roughly one to four percentage points per year, for the outcome measure involving eligibility.

The eligibility-imputation approach used here also did not factor in certain state-specific adjustments such as income disregards or family structure. However, this paper’s estimate of the number of eligible but uninsured children is comparable to published estimates that used more detailed eligibility imputation.15

In terms of the CPS Medicaid undercount, it is unlikely to greatly bias estimates of dropout, since the sample of interest for dropout is children who have gone from reporting Medicaid coverage to reporting no coverage. Those who are in Medicaid but fail to report it are likely to do so in both years of the survey; there is little reason to expect a change in a particular family’s likelihood of failing to report Medicaid coverage. However, the undercount may lead to an underestimate of year 1 Medicaid coverage among children who are uninsured in year 2. Thus, the overall effect of the undercount would be to underestimate the extent of Medicaid/CHIP dropout.

Another limitation is that the study design only enables the identification of uninsured children who were in public programs the previous year, but not currently uninsured children who were enrolled in Medicaid/SCHIP more than one year ago. This limitation leads to an underestimate of dropout among eligible but uninsured children. Similarly, it is impossible to distinguish chronically uninsured from transiently uninsured children; the latter group is far more likely to have experienced problems with Medicaid/SCHIP retention. Finally, some children lose and later regain Medicaid/SCHIP coverage, but this “churning” phenomenon cannot be measured using the CPS data and requires alternative data to assess.

Overall, taking these main limitations together—only a two-year study window per child and the Medicaid undercount—the results indicate that the insurance status of at least 42 percent, and likely more, of eligible but uninsured children in 2006 can be attributed to loss of public insurance.

Policy options and conclusions. Previous research provides several concrete options for addressing the growing problem of poor retention in public insurance. First and foremost, the renewal process should be simplified as much as possible, by reducing the frequency of renewal to once a year, using shared application forms for SCHIP and Medicaid, and offering forms in multiple languages—steps that many, but not all, states have taken.16

An option for premium-paying SCHIP recipients that has been remarkably effective in the past is passive enrollment, in which families are required to submit paperwork only if their circumstances have greatly changed in the previous year. Otherwise, children are assumed to still be eligible as long as parents continue paying premiums.17 A similar approach for children in Medicaid is to send preprinted forms completed with the prior year’s information, which parents can simply sign and return, as long as their circumstances have remained the same. The potential downside of these approaches—greater retention of children whose family incomes have increased to the point that they are no longer eligible—is small, given previous findings that fewer than

“Approaches to adult coverage also matter. Dropout rates are significantly lower when children are covered in the same program as their parents.”
10 percent of children who leave public insurance and become uninsured have actually lost eligibility.\textsuperscript{18}

A more drastic option would be to integrate separate SCHIP and Medicaid programs, running a single combined program in each state. This could reduce dropout in both programs and produce administrative savings.\textsuperscript{19} Although such a structural change may be unlikely, many states are considering major health care reforms much larger in scope than this. Furthermore, although there are concerns that combined programs might be more susceptible to stigma, there is no evidence in the literature to support the speculation that enrollment has suffered in states with combined programs.

Finally, approaches to adult coverage also matter. Dropout rates are significantly lower when children are covered in the same program as their parents, as opposed to vouchers for private coverage or separate adult programs.\textsuperscript{20}

This is a time of great possibility in the realm of children’s health insurance, given the current federal reauthorization debate over SCHIP and numerous ambitious state initiatives. In this context, the most important policy recommendation is simply for those engaged in these discussions to recognize the extent of poor retention in Medicaid and SCHIP. Outreach efforts can and should focus not only on enrollment but also on retention. Dropout, not simply poor take-up, plays a large role in the ongoing presence of more than eight million American children without health insurance.\textsuperscript{21}

\textbf{NOTES}


5. Disenrollment is defined as loss of Medicaid/SCHIP coverage. It can be subdivided into three categories: acquiring other insurance, loss of eligibility, or “dropout”—becoming uninsured despite ongoing eligibility. Sommers, “From Medicaid to Uninsured.”

\textit{This paper was written with the support of a graduate research fellowship from the M.D./Ph.D. Program in the Social Sciences at Harvard Medical School. The author is grateful to Melissa Wachterman and two anonymous reviewers for valuable feedback in revising the manuscript.}


8. Sommers, “From Medicaid to Uninsured.”


13. Ross and Cox, “Beneath the Surface.”


18. Sommers, “From Medicaid to Uninsured.”

