Calm Before The Storm: Expected Increase In The Number Of Uninsured Americans

Three quantitative estimates for the next decade.

by Todd Gilmer and Richard Kronick

In earlier work we asserted that health insurance coverage declined from 1979 to 1995 because the price of health care increased more rapidly than did personal income. Here we examine whether the model we presented accounts for the observed path of health insurance coverage from 1996 through 1999, and we use this model to project changes in insurance coverage over the next decade under alternative assumptions about the rate of growth of health care spending and personal income.

Data And Methods

Using national health care spending data, we follow the procedure described in our earlier work to estimate per capita health spending for insured adult workers from 1979 to 1999. We have slightly revised our methods by using data from the 1996 Medical Expenditure Panel Survey (MEPS) in addition to data from the 1987 National Medical Expenditure Survey (NMES) and the 1977 National Medical Care Expenditure Survey (NMCES) to estimate the proportion of expenditures accounted for by insured persons ages nineteen to sixty-four.

Using data from the March supplements to the Current Population Survey (CPS) from 1980 through 1996 and the revised price series, we reestimate our 1999 model. The logistic regression model predicts the probability of coverage among adult workers as a function of per capita health spending divided by income; employment characteristics such as firm size, self-employment, part-time status, and industry; demographic characteristics such as age, sex, marital status, race, ethnicity, and education; and indicators for region and year. We use these parameter estimates, estimated per capita health expenditures, and data from the March 1997 through March 2000 CPS to predict health insurance coverage for CPS respondents from 1996 through 1999. As in the earlier paper, we restrict the analysis to adult workers not covered as a dependent or by a public program.

Finally, we employ alternative assumptions about future increases in health spending and wage growth and data from the March 2000 CPS to simulate insurance coverage among adult workers from 2000 to 2009. We then use data from the March 1988 through March 2000 CPS to estimate the relationship between the percentage uninsured among adult workers not covered by public programs or as a dependent and the percentage uninsured among the entire under-sixty-five population. We use this estimated relationship to translate simulated changes in the

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percentage uninsured among adult workers into estimates of the number of nonelderly uninsured persons under alternative scenarios. To the extent that eligibility for Medicaid, the State Children's Health Insurance Program (SCHIP), or other public programs changes substantially, trends in the number of uninsured persons could be different than trends in the number of adult workers without private health coverage. However, over the thirteen years from 1988 to 2000, changes in the percentage uninsured in the under-sixty-five population closely tracked changes in the percentage uninsured among adult workers not covered by public programs or as a dependent.

**Results**

Per capita health spending for nonelderly insured adults divided by the median income of nonelderly adult workers declined very slightly from 8.5 percent in 1995 to 8.4 percent in 1999 (Exhibit 1). Growth in per capita health spending was modest during this time period, averaging 4.3 percent per year, and growth in median personal income was similar—4.7 percent per year. If the model presented in our earlier paper is correct, and if the distribution of other independent variables did not change substantially (for example, if there were not large changes in the number of workers employed in small firms or in the number of young workers), then there should have been a small decline in the percentage of workers who were uninsured from 1995 to 1999.

The model predicts that the percentage uninsured among workers not covered by a spouse or a public program should have declined from 23.3 percent in 1995 to 22.7 percent in 1999 (Exhibit 2). As predicted, the actual rate of coverage among this group of workers did increase slightly. The increase in coverage was not quite as large as the model predicted; the model predicted that coverage should have increased by approximately 0.6 percentage points, while actual coverage increased by 0.2 percentage points. That is, slightly more workers are uninsured than predicted by the model, but the differences be-

**EXHIBIT 1.**
**Percentage Uninsured Among Workers And Per Capita Health Spending Divided By Median Income, 1979–1999**

<table>
<thead>
<tr>
<th>Percent uninsured</th>
<th>Spending divided by income</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>0.090</td>
</tr>
<tr>
<td>24</td>
<td>0.083</td>
</tr>
<tr>
<td>22</td>
<td>0.076</td>
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<tr>
<td>16</td>
<td>0.054</td>
</tr>
<tr>
<td>14</td>
<td>0.047</td>
</tr>
<tr>
<td>12</td>
<td>0.040</td>
</tr>
</tbody>
</table>

between actual and predicted values are small.

We use the model to project the future path of insurance coverage under three alternative assumptions: First, we simulate what would happen under the assumption that per capita health spending and personal income increase at the relative rates that they did during the 1980s, when per capita health spending increased approximately twice as fast as personal income among adult workers. Second, we simulate health insurance coverage assuming that nominal wages grow at rates projected by the Social Security Administration (SSA) and that per capita health spending grows at rates projected by the National Health Accounts team at the Centers for Medicare and Medicaid Services (CMS, formerly HCFA). In this scenario, per capita spending increases at approximately 1.6 times the rate of increase in personal income. Third, we simulate what would happen under the relative growth rates observed from 1992 through 1999, when per capita health spending and incomes increased at similar rates.

Under the extremely optimistic assumption that health spending and incomes grow as they did in the 1990s, the percentage uninsured among adult workers is projected to change very little over the next decade. Based on this scenario, which assumes a slight decline (~0.5 percent) in the ratio of annual spending growth to income, the percentage of uninsured workers would decline slightly, from 23.1 percent in 1999 to 22.3 percent by 2009. Under the pessimistic, but not unlikely, assumption that health spending and income grow as they did in the 1980s, the percentage uninsured among adult workers is projected to increase from 23.1 percent in 1999 to 30.3 percent in 2009. Using SSA projections of wage growth and CMS projections of health spending increases, the middle scenario estimates that the percentage uninsured among adult workers would increase to 26.2 percent.

If there are not substantial changes in eligibility for or enrollment in public coverage, under the optimistic scenario we expect that the number of uninsured persons would decline by 1.3 million over the next decade; under the pessimistic scenario the number would increase by 12.8 million; under the middle scenario, it would increase by 5.3 million.

Discussion

Many analysts have noted with dismay that even in the strong economy of the 1990s the proportion of the population that is uninsured did not decline. We have shown here
that this is because the rate of growth of health spending was approximately equal to the rate of growth of personal income during the economic expansion. If economic growth slows and the rate of health spending increases, there is a widespread expectation that the number of uninsured persons will increase. Here we provide quantitative estimates of the magnitude of this relationship. If health expenditures increase at approximately twice the rate of growth of personal income over the next decade, we expect the percentage of the under-sixty-five population that is uninsured to rise from 16 percent to 21 percent. If the current geographic disparities in insurance rates persist, in California, Texas, and Florida more than one-quarter of the under-sixty-five population will be uninsured.

NOTES
2. For each year, we aggregated national health expenditures for services typically included in an acute care benefit package: hospital and physician services, prescription drugs, home health services, and net administrative cost of insurance. Data from the 1977 HCFA, the 1987 NHIS, and the 1996 MEPS were used to allocate a proportion of this spending to adults ages nineteen to sixty-four. Data from the March supplements to the 1980–2000 CPS were used to estimate per capita spending by insured persons ages nineteen to sixty-four.
3. Data from the 1987 NHIS and 1977 HCFA show large increases over the decade in the proportion of out-of-pocket and private health spending accounted for by the elderly. Our previous analysis extrapolated this increase through 1995, removing progressively larger shares of spending by the elderly from national health expenditures to construct our estimate of total spending by nonelderly adults. Data from the 1996 MEPS, however, show that the proportion of total spending accounted for by the elderly has remained relatively stable since the 1987 survey. Our revised price series uses these new data. As a result, we estimate higher per capita spending during 1987–1995 for nonelderly adults than we did in our 1999 analysis.
4. We do this for two reasons. First, very few workers covered by public programs or as a dependent purchase coverage on their own, so including them may bias our estimates of the effect of price on purchase decisions. Second, the CPS questions on health insurance coverage changed substantially in 1988 and in 1995. The 1988 changes primarily affected coverage estimates for children age fifteen and younger and for those covered as a dependent; the 1995 changes primarily affected coverage estimates for Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) and dependent coverage. Restricting our analysis to workers not covered by public programs or as a dependent minimizes the effect of the question wording changes and allows us to analyze the 1980–2000 CPS data as a time series of cross-sections.
5. We use an ordinary weighted least squares regression to estimate the relationship between the percentage uninsured among workers and the percentage uninsured for the entire population. This simple approach is highly predictive—the coefficient on the percent uninsured among workers is $73$ ($SE = .08$), $R^2 = .89$, and appears unbiased over the range of prediction.
7. Using data from national health care expenditure projections, our estimate of per capita health spending is projected to increase by approximately 6.8 percent per year. Using data from the Social Security Administration, we estimate that nominal wages will increase by approximately 4.3 percent per year. Thus, we estimate that per capita health spending divided by income will increase by approximately 2.4 percent per year from 2000 to 2009.
8. These estimates of the number of insured persons hold the population constant at the 1999 level; if we were to factor in population growth, the predicted number of uninsured persons would rise accordingly.