

Medicaid And Private Insurance: Evidence And Implications

*How large is the substitution of Medicaid for private insurance?
The answer depends on how exactly the question is posed.*

by David M. Cutler and Jonathan Gruber

HEALTH INSURANCE coverage of women and children in the United States over the past decade has been marked by two striking trends. The first is a dramatic increase in coverage through Medicaid—the public insurance program that covers low-income women and children, among others. The second is an equally dramatic decline in private coverage.

Medicaid coverage of children rose from 15 percent in 1987 to 21 percent in 1992, but private insurance coverage declined by almost the same amount (from 77 percent to 69 percent). On net, the uninsurance rate was unchanged. For women of childbearing age (ages fifteen to forty-four), Medicaid coverage rose from 8 percent to 11 percent, but the rate of private coverage fell from 76 percent to 71 percent. On net, the rate of uninsurance rose by approximately two percentage points.

The similarity between the increase in Medicaid coverage and the reduction in private coverage for these two groups leads one to ask whether these two trends are related. One natural linkage between them is the “substitution hypothesis;” that is, persons who are made eligible for Medicaid may drop their private insurance in favor of the public program. Since the average privately insured family pays more than \$1,000 out of pocket for health care each year (including premium contributions and cost sharing) and Medicaid

is essentially free, this is not an implausible hypothesis.¹

The extent of insurance substitution cannot be inferred from time-series data alone. There was a sizable recession in 1990–1991, and there is always less private coverage and more public coverage during such a time. Also, there has been a long-term secular decline in private insurance coverage in the United States, related to changes in the nature of employment and employers’ views about the benefits they need to offer to attract workers.

Determining whether there is some substitution of public for private insurance among these other trends is an important issue. Here we review our research on this question.

■ **Methods.** The major hurdle for any attempt at measuring the degree of substitution is figuring out how to differentiate between substitution and the other hypotheses noted above for changes in insurance coverage. There is no “correct” way to do this. If this were a controlled trial, we would randomly make some persons eligible for public insurance and others ineligible. We then would examine how many of those eligible for public insurance moved from private to public insurance and compare that with the change in private insurance in the control group.

Of course, no experiment of this form has

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been conducted. However, we do have a reasonable proxy. Until the mid-1980s Medicaid eligibility for children and pregnant women was largely limited to those eligible for cash benefits under Aid to Families with Dependent Children (AFDC): very low income families headed by single females. In response to federal legislation in the late 1980s and early 1990s, Medicaid moved from a program restricted to the AFDC population to a broader program covering children and pregnant women who had higher incomes. The changes were dramatic. By 1992 all women with incomes below 133 percent of poverty were eligible for Medicaid coverage for pregnancy-related services; all children up to age six in families with incomes up to 133 percent of poverty, and all children up to age nine in families with incomes up to 100 percent of poverty, were eligible for Medicaid coverage for all of their medical expenses. Also, states could expand eligibility for many of these groups up to 185 percent of poverty and still receive federal matching funds. These expansions doubled Medicaid eligibility for pregnant women and increased eligibility for children by nearly 50 percent.

Importantly, these expansions were of different magnitudes in different states. States that traditionally had higher AFDC needs standards expanded Medicaid eligibility much less than did states with lower needs standards. This differential creates a natural test of the substitution hypothesis. If the hypothesis is right, then states with a greater expansion of Medicaid eligibility over the 1980s and 1990s should have seen a greater reduction in private insurance coverage than states with a smaller expansion of Medicaid eligibility saw. If we look across states, then any economic factors that are common to the nation as a whole will not affect our estimates.

To apply this test, we developed an index of the generosity of Medicaid policy in each state and year.² There is tremendous variation in this index in different states over time that allows us to carry out our test. In Pennsylvania, for example, Medicaid eligibility of preg-

nant women rose by twelve percentage points, and Medicaid eligibility of children was essentially unchanged. In Texas, by contrast, the eligibility of pregnant women rose by forty-three percentage points, and the eligibility of children rose by twenty-eight percentage points.

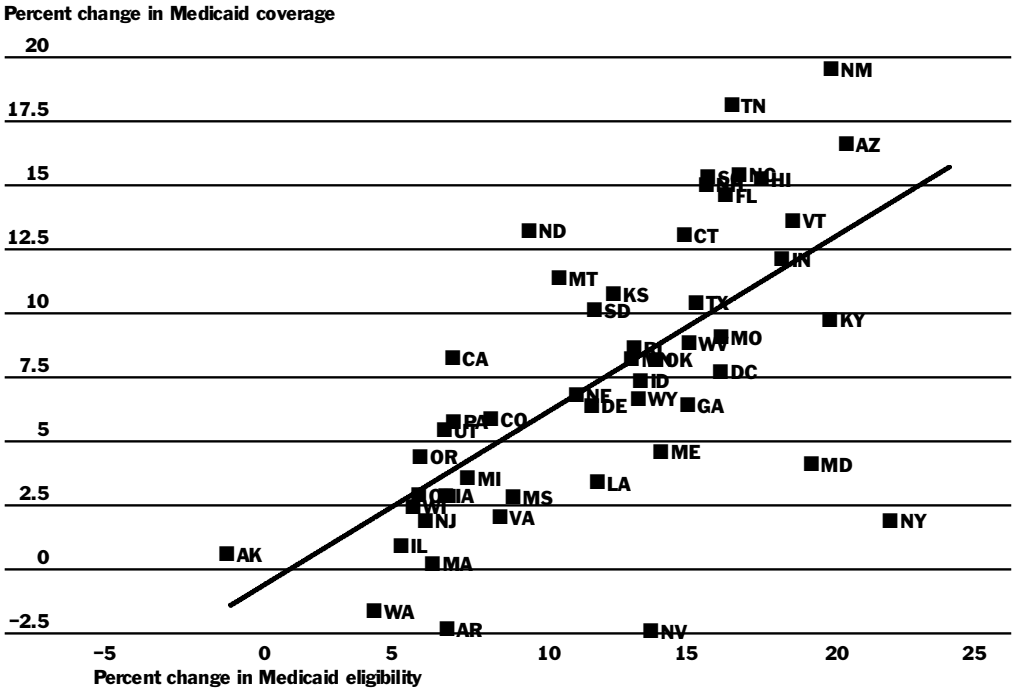
Exhibit 1 shows the relation between changes in Medicaid eligibility and Medicaid coverage for children across states, between 1987 and 1992. Not surprisingly, there is a strong positive relation between eligibility and coverage: States with a greater expansion of Medicaid eligibility had a greater increase in Medicaid coverage than states with a smaller expansion of Medicaid eligibility had.

Exhibit 2 shows the relation between Medicaid eligibility and private insurance coverage over the same period. This shows the exact opposite relation: States with a greater increase in Medicaid eligibility had a greater decline in private coverage than states with a smaller increase in Medicaid eligibility had. This is just the type of evidence predicted by the substitution hypothesis.

We have explored this methodology more fully in another paper, which examines cross-state differences in Medicaid eligibility and public and private insurance, controlling for economic and demographic factors of the population in each state such as age, sex, race, education, family size, employment, firm size, industry, and occupation.³ We also control for state-specific unemployment rates.

As we emphasize in this earlier paper, insurance coverage is a family decision, since policies generally are sold only for individuals and families, not separately for different family members. As a result, when women and children are made eligible for Medicaid, it could cause ineligible persons in these families to drop private coverage, because the residual benefits of private insurance may not be worth the premiums required. In addition, Medicaid policy may affect private insurance coverage by changing employers' behavior. Employers of low-wage workers may increase workers' cost sharing when they know that

EXHIBIT 1
Change In Medicaid Eligibility And Medicaid Coverage Of Children, 1987–1992



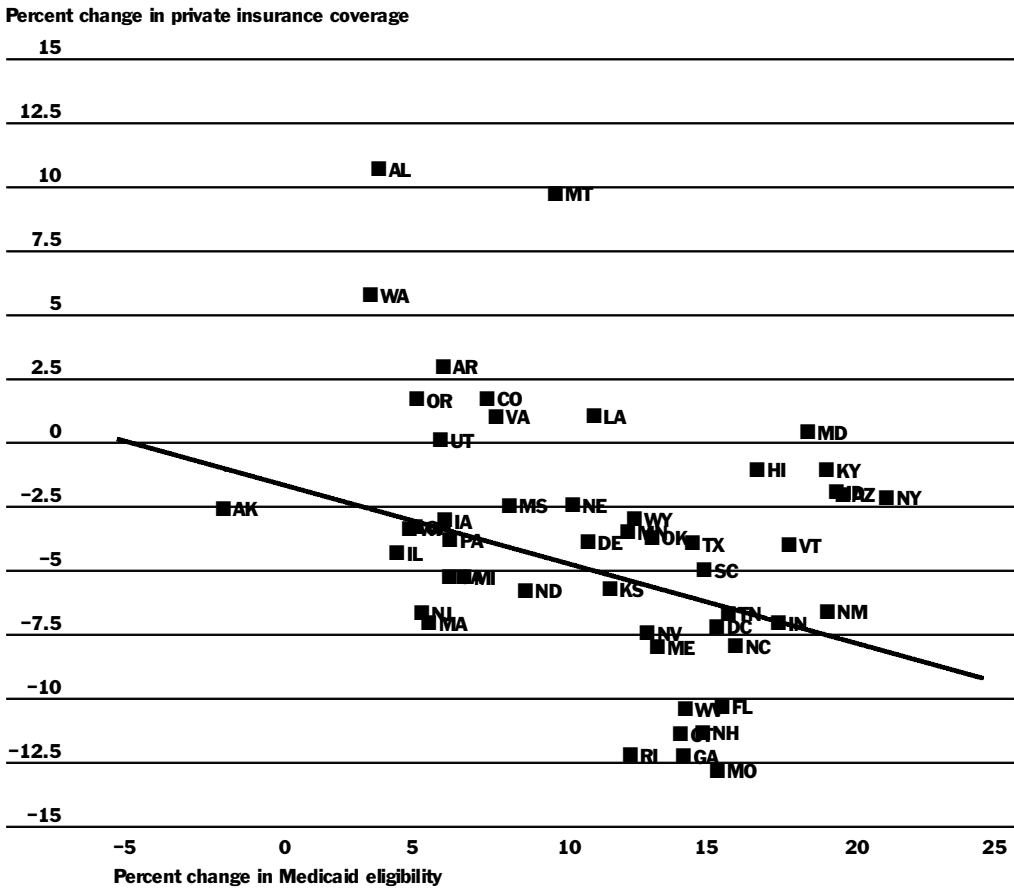
SOURCE: Current Population Survey, March 1987 and March 1992.

the public sector is more generous for uninsured workers. In our methodology we control for these factors by relating family insurance coverage to family eligibility. Looking only at individual coverage and eligibility misses these important links.

We estimate that because of the expansions 1.5 million children received Medicaid coverage between 1987 and 1992 who would not otherwise have done so (Exhibit 3). However, the Medicaid expansions led to a decline in private insurance coverage of 0.6 million children. Since the Current Population Survey (CPS) does not ask directly about pregnancy, we examine the insurance coverage of all women of childbearing age (ages fifteen to forty-four). We find that changes in Medicaid and private insurance coverage for women of childbearing age were about equal. Finally, there was a small decline in coverage for ineligible persons as more family members became eligible for Medicaid.

Not everyone who is eligible for Medicaid enrolls in the program automatically, however. The Medicaid expansions explicitly did not give continuous coverage to women but created a form of “conditional coverage,” whereby women are covered for only some expenses. As a result, women who are eligible for Medicaid in the event of pregnancy but who report themselves to be uninsured actually have some partial (conditional) insurance coverage. Indeed, evidence from case studies of the Medicaid expansions suggests that very few women who were made eligible took advantage of this eligibility to fund prenatal care. Rather, perhaps because of poor information about eligibility, most women were enrolled in Medicaid by hospitals at the time of their delivery; in fact, many hospitals have set up special departments, or contracted with outside parties, explicitly to enroll eligible persons in Medicaid.⁴ In the same vein, children who are eligible for Medicaid but not

EXHIBIT 2
Change In Medicaid Eligibility And Private Insurance Coverage, 1987–1992



SOURCE: Current Population Survey, March 1987 and March 1992.

enrolled in the program are “conditionally covered” as well. If these children get very sick, they likely will be enrolled in Medicaid.

We count this “conditional coverage” as a form of insurance. As a rough proxy for the value of conditional coverage, we use the share of spending by children and pregnant women that is in a hospital, since this spending likely will be covered by Medicaid should it be needed. Doing this calculation adds 0.9 million women and 0.4 million children, or 1.3 million (statistical) persons to the coverage rolls. Our net result is that the Medicaid expansions led to an effective total of 3.5 million more persons with public coverage and 1.7 million fewer persons with private coverage.

Extent Of Substitution

How large is the substitution of Medicaid for private insurance? The answer depends on how exactly the question is posed. One version of the question, which we considered elsewhere, is: What is the reduction in private insurance coverage as a share of the persons who enrolled in Medicaid directly as a result of the expansions?⁵ The answer is found in Exhibit 3: The decline in private insurance was roughly 50 percent (1.7 million of 3.5 million) of the increase in Medicaid coverage induced by the expansions.

A second version of the question, which Lisa Dubay and Genevieve Kenney pose else-

EXHIBIT 3
Effect Of Medicaid Expansions On Insurance Coverage, 1987–1992

Coverage of	Change in coverage (millions)	
	Medicaid	Private
Children	1.5	-0.6
Women ages 15–44	0.7	-0.8
Other adults	-	-0.3
Total	2.2	-1.7^a
Conditional coverage of women	0.9	-
Conditional coverage of children	0.4	-
Total	3.5	-1.7^b

SOURCE: D. Cutler and J. Gruber, “Does Public Insurance Crowd Out Private Insurance?” *Quarterly Journal of Economics* 111, no. 2 (1996): 391–430.

^a Decline of 77 percent.

^b Decline of 49 percent.

where in this volume of *Health Affairs*, is: What is the reduction in private insurance coverage as a share of the total increase in Medicaid coverage over this period? Many more persons enrolled in Medicaid than did so just because of the expansions. Particularly below the poverty line, much of the increase in Medicaid coverage arose through increased enrollment of those who were already eligible for Medicaid before the expansions. Since many more persons enrolled in Medicaid than did so because of the expansions alone, this estimate of substitution will be smaller than the first. Indeed, we estimate that the reduction in private coverage was about 22 percent of the increase in Medicaid coverage.

The third version of the question is: What share of the decline in overall private insurance coverage over the 1987–1992 period is a result of substitution of Medicaid? The answer to this question is about 15 percent. This number is relatively small. That is not surprising; private coverage changed in many ways over this time period, and the substitution hypothesis captures only a part of that change.

It is important to reiterate the difficulty that our analysis (indeed, any analysis) of this question must address: the need to control for other factors affecting insurance coverage over this period. There is no definitive way to do this. We think that by looking at differ-

ences across states in the magnitude of the eligibility expansions, we have avoided much of the issue of general changes in the economic environment over time. Of course, a natural criticism of this approach is that economic conditions may differ across states. In our work we control for this by looking within states at the change in coverage for children of different ages. Medicaid eligibility expanded much more for younger children (under age six) than for older children (over age twelve). In our results we find that private coverage fell more for younger children than for older children, even when state-specific economic changes are controlled for.

Our results are not the only results to find substitution between Medicaid and private insurance. Others have found evidence that Medicaid substitutes for private insurance.⁶ The studies by Janet Currie, and Janet Currie and Jonathan Gruber, which use methodologies similar to our own, find results that are also quite similar. Kimberly Rask and Kevin Rask look at how differences in Medicaid eligibility in different areas of the country are related to differences in private insurance coverage in these areas; they find evidence that more generous Medicaid eligibility is associated with lower private coverage. Dubay and Kenney rely on time-series comparisons between coverage of women and children and

coverage of men, whom they treat as a control group that captures general changes in the economic environment.

We find our approach more convincing than many of the others in the literature, particularly studies using changes in private coverage for men as a control group for women or children. As noted above, changes in coverage for men will be affected by the Medicaid expansions. Thus, the estimate of substitution from such an analysis will be too low. In addition, the impact of the 1990–1992 recession may have been different for men and women, potentially invalidating the comparison. For example, there is a large amount of occupational segregation across the sexes, and the time-series factors may differ by occupation. Finally, just as there is a decline in private coverage for men, there is also an increase in Medicaid coverage for men. Analyses that consider men as a control group often do not net out this increase in Medicaid coverage from their estimates.

Policy Implications

Our results find evidence of substitution of Medicaid for private insurance. What do these results imply for Medicaid policy? Here we address some of these issues.

■ **Should eligibility be restricted?** One might be tempted to conclude that if Medicaid is substituting for private insurance, Medicaid eligibility should be restricted to lower-income groups. We believe that conclusion is not warranted by the facts. Just knowing that people move from private insurance to Medicaid as Medicaid eligibility is broadened is not sufficient to determine appropriate eligibility policy. For example, if the insurance policies of the group moving from private to public coverage were not very generous to begin with, Medicaid may improve access to care for these persons.

In addition, persons who leave private insurance for Medicaid save money—the amount they would have spent on insurance and out-of-pocket costs in the absence of Medicaid. This is an income transfer to a

population group that has traditionally been difficult to redistribute to in the past. Our estimates suggest that, on average, families that moved from private to public insurance received an implicit income transfer of \$1,523, or 8 percent of family income.⁷

More fundamentally, the results on substitution tell us only about the costs of coverage expansions, not the benefits of those expansions. Just because a policy costs more than we might like does not mean it is a bad policy. Any attempt to design appropriate Medicaid policy must consider the substitution effect but must go further. Indeed, research by Currie and Gruber shows important gains from the Medicaid expansions in terms of improved use of preventive care and reduced mortality of infants and children.⁸ These findings imply that the Medicaid expansions lowered infant mortality by 8.5 percent and child mortality by 5.1 percent. The cost per life saved—roughly \$1–\$1.6 million—is much lower than that incurred by the government to save lives through a variety of other interventions, even with the substitution effect built in.⁹

■ **Could Medicaid be better targeted?** It may be possible, however, to target Medicaid to previously uninsured persons more than is now done. A problem all social insurance programs face is that of targeting benefits to the groups in need. In the case of Medicaid policy, we would like to restrict coverage to persons who otherwise are unable to obtain insurance in the private market. If possible, we might wish to exclude persons from Medicaid coverage entirely who are offered but decline private coverage.¹⁰ Such a mechanism might be hard to enforce, however.

A more palatable alternative might be to require a “buy-in” to Medicaid at higher income levels, or to require increased cost sharing as income increases. A more radical alternative would be to eliminate the formal Medicaid program and instead offer subsidies to individuals or businesses for the purchase of private insurance, as some states, such as Massachusetts, are considering. Such a sys-

tem would have other economic effects but might help to limit substitution.

■ **Is Medicaid enough?** The final issue we address is whether public policy should focus as heavily on Medicaid coverage as it now does. In considering the literature on Medicaid, we are struck by two facts. First, not everyone who is eligible for Medicaid—even among the uninsured—enrolls. In our earlier work, for example, we estimated that at most 60 percent of the uninsured children made eligible for Medicaid over the 1987–1992 period took coverage.¹¹ The second fact is that the most substantial health risks of the uninsured are generally social, not medical. The number of lives lost to smoking, drinking, illegal drugs, and violence among the poor is likely far greater than the number of lives that could be saved by better medical care for that group.

These observations lead us to focus on outreach efforts for eligible persons as much as the availability of insurance. Perhaps the greatest gains in Medicaid effectiveness could come from earlier enrollment of those who are now eligible but not enrolled in the system, so medical care can have a more beneficial effect. Indeed, several states have adopted public relations campaigns with themes such as “Baby Your Baby” (Utah) or “Baby Love” (North Carolina) to accompany expansions in Medicaid eligibility. In fact, some evidence shows that the North Carolina program had significant positive effects on the use of prenatal care and on birth outcomes.¹²

In addition, we need to shift our focus from working toward the insurance of the poor to working toward the health of the poor. As part of this, we may want to reduce our emphasis on formal insurance coverage and increase our emphasis on prevention of adverse social behavior.¹³ This is a trade-off that could have far-reaching implications.

NOTES

1. The authors discuss the theory of substitution in more detail in D. Cutler and J. Gruber, “Does Public Insurance Crowd Out Private Insurance?”

Quarterly Journal of Economics 111, no. 2 (1996): 391–430.

2. *Ibid.* Coverage and eligibility are from the March Current Population Survey (CPS).
3. *Ibid.*
4. U.S. General Accounting Office, *Medicaid Expansions: Coverage Improves but State Fiscal Problems Jeopardize Continued Progress* (Washington: GAO, 1994).
5. Cutler and Gruber, “Does Public Insurance Crowd Out Private Insurance?”
6. J. Currie, “Do Children of Immigrants Make Differential Use of Public Health Insurance?” (Mimeo, University of California, Los Angeles, 1996); J. Currie and J. Gruber, “The Technology of Birth: Insurance Coverage, Medical Interventions, and Infant Health” (Mimeo, National Bureau of Economic Research, Cambridge, Massachusetts, 1996); L. Dubay and G. Kenney, “Did Medicaid Expansions for Pregnant Women Crowd Out Private Coverage?” *Health Affairs* (January/February 1997): 185–193; and K. Rask and K. Rask, “Public Health Insurance and Moral Hazard” (Mimeo, Colgate University, Hamilton, New York, 1995).
7. D. Cutler and J. Gruber, “The Effect of Expanding the Medicaid Program on Public Insurance, Private Insurance, and Redistribution,” *American Economic Review* 86, no. 2 (1996): 368–373.
8. J. Currie and J. Gruber, “Saving Babies: The Efficacy and Cost of Recent Changes in the Medicaid Eligibility of Pregnant Women,” *Journal of Political Economy* (forthcoming); and J. Currie and J. Gruber, “Health Insurance Eligibility, Utilization of Medical Care, and Child Health,” *Quarterly Journal of Economics* 111, no. 2 (1996): 431–466.
9. J. Gruber, “Health Insurance for Poor Women and Children in the U.S.: Lessons from the Past Decade,” in *Tax Policy and the Economy*, ed. J. Poterba (Chicago: University of Chicago Press, forthcoming).
10. Indeed, this is exactly the structure of a recent subsidy program for the purchase of private insurance in Minnesota: Persons must have been uninsured for eighteen months or more and could not work at a job that offered insurance.
11. Cutler and Gruber, “Does Public Insurance Crowd Out Private Insurance?”
12. P. Buescher et al., “An Evaluation of the Impact of Maternity Care Coordination on Medicaid Birth Outcomes in North Carolina,” *American Journal of Public Health* 81, no. 12 (1991): 1625–1629.
13. D. Cutler, “Cutting Costs and Improving Health: Making Reform Work,” *Health Affairs* (Spring 1995): 161–172.