A METHODOLOGY FOR ESTIMATING THE IMPACTS OF EXTENDING MEDICAID COVERAGE TO ALL PREGNANT WOMEN AND CHILDREN WITH INCOMES BELOW THE POVERTY LEVEL 1/

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During the past few years, the Congress has expanded the Medicaid program in the area of maternal and child health. The Deficit Reduction Act of 1984 (DEFRA) required states to provide Medicaid coverage for pregnant women and young children who were not eligible for Aid to Families with Dependent Children (AFDC)--even though their incomes were below the state's payment standards--because they lived in intact families. Specifically, DEFRA provided for mandatory coverage of infants in fiscal year 1985, one-year olds in 1986, two-year olds in 1987, three-year olds in 1988, and four-year olds in 1989. In addition, coverage for pregnant women who met income-eligibility standards but lived in intact families with unemployed parents was mandated beginning in fiscal year 1985. The Consolidated Omnibus Budget Reconciliation Act of 1986 (COBRA) further increased coverage for pregnant women by mandating eligibility for those who lived in intact families with incomes below state payment standards, regardless of the employment status of the principal wage earners. Consequently, by fiscal year 1990, all pregnant women and all children under five years of age, regardless of family status, will be covered by Medicaid provided that their family incomes are below the state's payment standards.

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Despite these expansions, many poor mothers and children will not be eligible for Medicaid, because state payment standards are well below the official poverty thresholds. This analysis considers options that would permit state Medicaid programs to offer Medicaid coverage to pregnant women and children with family incomes above current payment standard levels (and above the protected income level in those states with medically needy programs), without granting them eligibility for cash transfers through the AFDC program. A state would receive its usual federal matching rate under the expanded program. Two parameters determine the nature of each option that will be examined below:

- o The maximum income level for eligibility under the option. Three levels will be examined below--50 percent of the poverty thresholds, 100 percent of poverty, and 150 percent of poverty.
- o The various types of individuals who might be included in the program. The four groups examined below are pregnant women, infants under one year of age, children age one through four, and children from five through seventeen years of age.

The purpose of this analysis is to describe a methodology for estimating the number of persons who might benefit from, and the federal costs of, such Medicaid expansions. The first section describes how estimates of the numbers of newly eligible persons and person-years of coverage were calculated for the various maximum income levels for eligibility. The next section discusses CBO's estimates of the additional cost for each person-year of coverage. The final section presents annual federal costs for each option and examines how these costs might vary if states were permitted to choose whether or not to offer the expanded program.

Estimating the Number of New Beneficiaries

The number of persons that would be covered under each option was estimated using the March 1985 Current Population Survey (CPS). The Urban Institute's Transfer Income Model (TRIM) was used to calculate the available resources--that is, the amount of income as defined by the AFDC program--by month for each potential filing unit in the households sampled by the CPS. For each month of 1984, available resources were compared with the appropriate payment standard for the filing unit's state of residence, as well as with the three fractions of the appropriate poverty thresholds that would determine Medicaid eligibility under these expansions.

To estimate the costs of expanded health care for children and infants under Medicaid, the number of additional months of potential eligibility was calculated. These were summed and divided by twelve to obtain total additional person-years of coverage for all children by age. Since the costs of expanding health care under Medicaid would be largely determined by the number of years of additional eligibility under each option, person-years of coverage rather than number of newly eligible persons is used in the calculation of costs.

The calculations for pregnant women were based on a different concept than the one used for children. Under COBRA, any woman who becomes eligible for Medicaid during her pregnancy remains covered until 60

days after delivery. 2/ Therefore, the relevant concept is the number of pregnant women whose incomes were never below the state's payment standard during the year, but were below the appropriate fraction of the poverty level during at least one month of the year.

Estimates of the number of pregnant women potentially affected by various options were difficult to obtain directly from the CPS because the sample of poor women with infants is so small. Therefore, the numbers of pregnant women were derived from the number of women with incomes above the payment standard but below the appropriate fraction of the poverty level, multiplied by the fertility rate for poor women in the appropriate age group.

To obtain the number of newly eligible women and children, however these initial counts must be reduced to reflect those who would normally be covered through state medically needy programs. The medically needy adjustment was based on the proportion of persons with incomes above the payment standard, but below the new income eligibility cutoff, who received Medicaid benefits in 1984, presumably because of state medically needy programs. These proportions were calculated separately for the South and non-South. The estimate was based on information about female-headed

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2. Most of the cost for coverage of pregnant women comes at the time of delivery. However, the estimate includes health care costs that are not pregnancy related based on the assumption that the average beneficiary receives coverage for six months during her pregnancy.

families only, because pregnant women and children in intact families with incomes below the payment standard level were eligible for Medicaid under medically needy programs in all states in 1984. 3/ 4/

Finally, to obtain the number of new participants, the fraction of those who would be newly eligible who would apply had to be estimated--an exceptionally difficult process. Experience with current enrollees is not an accurate guide to participation rates of persons with higher family incomes. Consequently, the estimates discussed below are based on two hypotheses:

- Pregnant women would have a higher participation rate than children because their medical costs, on average, are higher and hospitals would have an incentive to help these women obtain coverage whenever possible.
- Uninsured persons would have a higher participation rate than otherwise similar insured persons, because the former group has substantially greater liabilities for the costs of their health care.

The actual participation rates for pregnant women assumed in the estimates discussed below were 90 percent for those without insurance and 60 percent for the insured. For infants and children, the assumed rates were 65 percent for the uninsured and 50 percent for the insured.

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3. If estimates of medically needy participation rates were based on all categories of eligible people, the result would have been artificially low. This is the case because expansions of Medicaid to all pregnant women and children below state payment levels were not complete at the time of the 1985 Current Population Survey.

4. The proportion of medically needy persons as a fraction of all persons was not computed by state because the sample sizes would be too small to be reliable.

The estimates of persons that would be covered under each of the three options are shown in Table 1. The number of deliveries covered would range from 40 thousand if the income eligibility cutoff were set at 50 percent of poverty, to 340 thousand for an eligibility cutoff at 150 percent of poverty. Similarly, the number of children that would be covered (in person-years) would range from about 500 thousand for an eligibility cutoff at 50 percent of poverty, to about 5.5 million at 150 percent of poverty. The number of children ever affected by this type of proposal would range from 1.1 million at a 50-percent-of-poverty cutoff to 8.4 million at 150 percent of poverty. Of those that would receive some coverage under the options, approximately 50 percent would have some private insurance.

Calculating Per Capita Costs

The cost per child was based on CBO's estimates of outlays per person-year. In 1987, CBO estimates that total federal and state outlays on health care per AFDC cash beneficiary person-year will be $620. In order to reflect differences in cost by age of child, medical care expenditures per person-year by age, computed from the 1980 National Medical Care Utilization and Expenditure Survey (NMCUES), were used to adjust this average amount for specific age groups. Outlays per person-year in 1987 were estimated at $920 for infants under one year of age, $430 for children ages one through four, and $660 for children five years of age or older. Costs per pregnant women, estimated at $2,850 in 1987, were based on the average cost per hospital day, and the average Medicaid fee for delivery, from state Medicaid program information. Hospital costs for a pregnancy in 1987 were

TABLE 1. PERSON-YEARS AND PERSONS COVERED UNDER OPTIONS TO EXTEND MEDICAID COVERAGE TO CERTAIN PREGNANT WOMEN AND CHILDREN

Eligibility Group	Income-Eligibility Cutoff (As a percent of the poverty thresholds) 50 Percent	100 Percent	150 Percent
	Person-Years of Coverage (In thousands)		
Pregnant Women	40	190	340
Children, All Ages	530	2,860	5,470
Under 1	50	210	290
1-4	120	660	1,250
5-17	360	1,990	3,930
	Persons Ever Covered (In thousands)		
Pregnant Women	40	190	340
Children, All Ages	1,130	4,960	8,380
Under 1	170	650	750
1-4	240	1,110	1,850
5-17	720	3,100	5,780

SOURCE: Congressional Budget Office estimates based on the March 1985 Current Population Survey.

estimated to be $1,600, the physician comprehensive fee to be $550, other pregnancy-related costs to be $100, and other nonpregnancy-related health care costs to be $600.

The per capita costs for pregnant women and children were adjusted to reflect the extent to which newly eligible persons would have private insurance, because the private insurance plans must pay before Medicaid--that is, Medicaid is a secondary payor. Most insurance policies do not cover all services, however, and they usually require the beneficiary to pay some coinsurance and deductible amounts. Because Medicaid generally pays all of coinsurance and deductible amounts for beneficiaries, as well as paying for services covered under Medicaid but not by the specific private insurance plan, the outlays for pregnant women and children with insurance were estimated to be 25 percent of the cost for similar persons without insurance. The estimates discussed below do not include the higher costs that would be paid for those persons with private insurance that is not detected by the Medicaid program. Under recently enacted legislation, this amount should be quite small.

Estimating Federal Outlays Under Mandatory and Optional Programs

Federal outlays were estimated by multiplying the number of additional person-years (or pregnant women) by the average cost per year (or per delivery) adjusted for a secondary insurance factor and by the state-specific federal matching rate for Medicaid. Costs for children were based on the three age groups discussed above.

Table 2 presents the fiscal year 1987 annual costs for a fully implemented mandatory program at the same three possible income-eligibility cutoffs--50 percent of poverty, 100 percent of poverty, and 150 percent of poverty. Annual federal outlays would range from $50 million for

newly participating pregnant women and $130 million for newly participating children with family incomes up to 50 percent of the poverty level, to $280 million for pregnant women and $1,070 million for children with family incomes up to 150 percent of the poverty level. These estimates were not reduced to account for possible savings that could arise from improved prenatal and postnatal care, because the higher current costs seldom accrue to Medicaid or other federal health programs.

TABLE 2. FEDERAL COSTS UNDER OPTIONS TO EXTEND MEDICAID COVERAGE TO CERTAIN PREGNANT WOMEN AND CHILDREN (In millions of 1987 dollars)

Eligibility Group	Income-Eligibility Cutoff (As a percent of the poverty thresholds)		
	50 Percent	100 Percent	150 Percent
All Groups	180	820	1,350
Pregnant Women	50	190	280
Children, All Ages	130	630	1,070
Under 1	20	70	100
1-4	20	100	170
5-17	90	460	800

SOURCE: Congressional Budget Office estimates based on the March 1985 Current Population Survey.

The states could be allowed to choose whether to provide coverage and, if so, their maximum income level between their payment standard level and a federally determined ceiling expressed as a percent of the poverty thresholds. Moreover, each state could be allowed to choose which

groups--for example, whether or not to include pregnant women and children over one year of age--would be covered under its program. Some states would probably participate in an optional program, because extending coverage to more pregnant women and children would be less expensive under it than under current law. In order to extend Medicaid coverage under current law, a state must either increase its AFDC payment level for all women and children--thereby incurring additional expenditures for both cash assistance and Medicaid--or enact a medically needy program for all categorically needy persons. In other words, states cannot now extend coverage only to groups with specific characteristics, such as infants under one year of age. In contrast, under the Medicaid-only coverage for pregnant women and children, a state could expand Medicaid coverage without making additional AFDC payments and without offering additional coverage to other persons such as nonpregnant adults or older children.

Estimating the cost of expanded coverage that would be at each state's option presents serious methodological problems, however, because no data directly address the issue of which states might choose to adopt such an option or which groups they might cover. However, the sample size of the CPS is sufficiently large to permit estimates to be contrasted for different groups of states that might enact a version of this approach. Two groupings of states were used: by level of AFDC payment standard and by geographic region.

Table 3 displays cost estimates for states divided into three groups based on level of AFDC payment standard. The group of states with the lowest payment levels--which account for only 25 percent of current Medicaid costs--would account for almost 90 percent of additional Medicaid costs and approximately 85 percent of the additional person-years of coverage of a mandatory program, if the maximum income level was set at 50 percent of the poverty thresholds. For the option with a maximum income level equal to 150 percent of poverty, 61 percent of the additional costs and 57 percent of the additional person-years of coverage under a mandatory program would occur in the states with the lowest payment levels. Most of the costs and eligible persons--especially at 50 percent of the poverty thresholds--would be in those states with the lowest payment standards.

Table 4 provides similar cost estimates for states grouped by the regional definitions of the Bureau of the Census. It shows that 80 percent of the total costs of a mandatory program with maximum income levels set at 50 percent of the poverty thresholds would occur in the South, as would 52 percent of the costs of a mandatory program with income cutoffs at 150 percent of the poverty thresholds. (The South currently accounts for only 25 percent of total Medicaid program costs.) Consequently, if this approach was optional but it was adopted by all the Southern states, a substantial portion of the costs of a mandatory program would be incurred at all of the income-eligibility limits. The results for the Southern states are especially noteworthy because the Southern Governors Association is one of the organizations that has proposed expanding Medicaid to cover pregnant women and young children.

TABLE 3. FEDERAL COSTS FOR MEDICAID EXTENSIONS BY LEVEL OF STATE PAYMENT STANDARD

Eligibility Group	Income-Eligibility Cutoff (As a percent of the poverty thresholds) 50 Percent	100 Percent	150 Percent
	Federal Outlays a/ (In millions of 1987 dollars)		
All Groups	**180**	**820**	**1,350**
Low Payment Level	170	550	810
Moderate Payment Level	10	150	300
High Payment Level	b/	110	230
Pregnant Women	50	180	280
Low payment level	50	130	180
Moderate payment level	b/	30	60
High payment level	b/	20	40
Children	130	630	1,060
Low payment level	120	420	630
Moderate payment level	10	120	240
High payment level	b/	90	190
	Person-Years of Coverage a/ (In thousands)		
Pregnant Women	40	190	340
Low Payment Level	40	130	200
Moderate Payment Level	c/	40	90
High Payment Level	c/	30	60
Children	530	2,860	5,470
Low Payment Level	450	1,820	3,100
Moderate Payment Level	60	600	1,320
High Payment Level	10	440	1,060

SOURCE: Congressional Budget Office estimates based on the March 1985 Current Population Survey.

a. Details may not sum to totals due to rounding.
b. Less than $5 million.
c. Less than 5,000 deliveries.

TABLE 4. FEDERAL COSTS FOR MEDICAID EXTENSIONS BY REGION

Eligibility Group	Income-Eligibility Cutoff (As a percent of the poverty thresholds) 50 Percent	100 Percent	150 Percent
	Federal Outlays a/ (In millions of 1987 dollars)		
All Groups	**180**	**820**	**1,350**
South	160	490	710
West	10	80	160
Midwest	20	140	270
Northeast	10	100	210
Pregnant Women	50	190	280
South	50	120	160
West	b/	20	30
Midwest	b/	30	50
Northeast	b/	20	40
Children	150	620	1,070
South	110	370	550
West	10	60	130
Midwest	20	110	220
Northeast	10	80	170
	Person-Years of Coverage a/ (In thousands)		
Pregnant Women	40	190	340
South	40	110	170
West	c/	20	40
Midwest	c/	40	70
Northeast	c/	30	50
Children	530	2,860	5,470
South	390	1,630	2,720
West	30	340	760
Midwest	80	520	1,150
Northeast	30	370	840

SOURCE: Congressional Budget Office estimates based on the March 1985 Current Population Survey.

a. Details may not sum to totals due to rounding.
b. Less than $5 million.
c. Less than 5,000 deliveries.

Sensitivity of the Estimates

Providing Medicaid coverage to all low-income pregnant women and children--as defined by family incomes below some fraction of the federal poverty thresholds--would raise federal outlays for this program by $180 million to $1,350 million, an increase of between one and five percent. This rather modest increase for what appears to be a major expansion in eligibility is due to three reasons. First, many persons above current AFDC income-eligibility levels are already covered through state medically needy programs. Secondly, roughly half of the persons who would gain Medicaid coverage already have some private insurance. Finally, some pregnant women and many children might not participate in the program.

Under the extreme assumptions that all eligible persons would participate and that Medicaid would be the primary payer even for those persons with private insurance, the total cost of a mandatory program with maximum income levels set at 150 percent of poverty thresholds would be $5.4 billion rather than $1.4 billion discussed above. Although the reductions in this estimate to reflect participation rates under 100 percent and the "secondary payer" status of Medicaid for many new participants are based on limited information, the direction of their effects is clear--they would reduce the costs of extending coverage to poor and near-poor pregnant women and children from the maximum possible amount.

Moreover, the cost of this type of expansion would be lower if states are allowed to choose whether to provide coverage and at what income levels. The estimates in Tables 3 and 4 indicate that if the Southern states

(or, almost equivalently, the low payment standard states) chose the option, the cost increase would be at least half that for a mandatory program. On the other hand, if the types of expansions discussed above were popular only in states with high payment levels, costs would rise by a small fraction of the increase from a similar mandatory program.