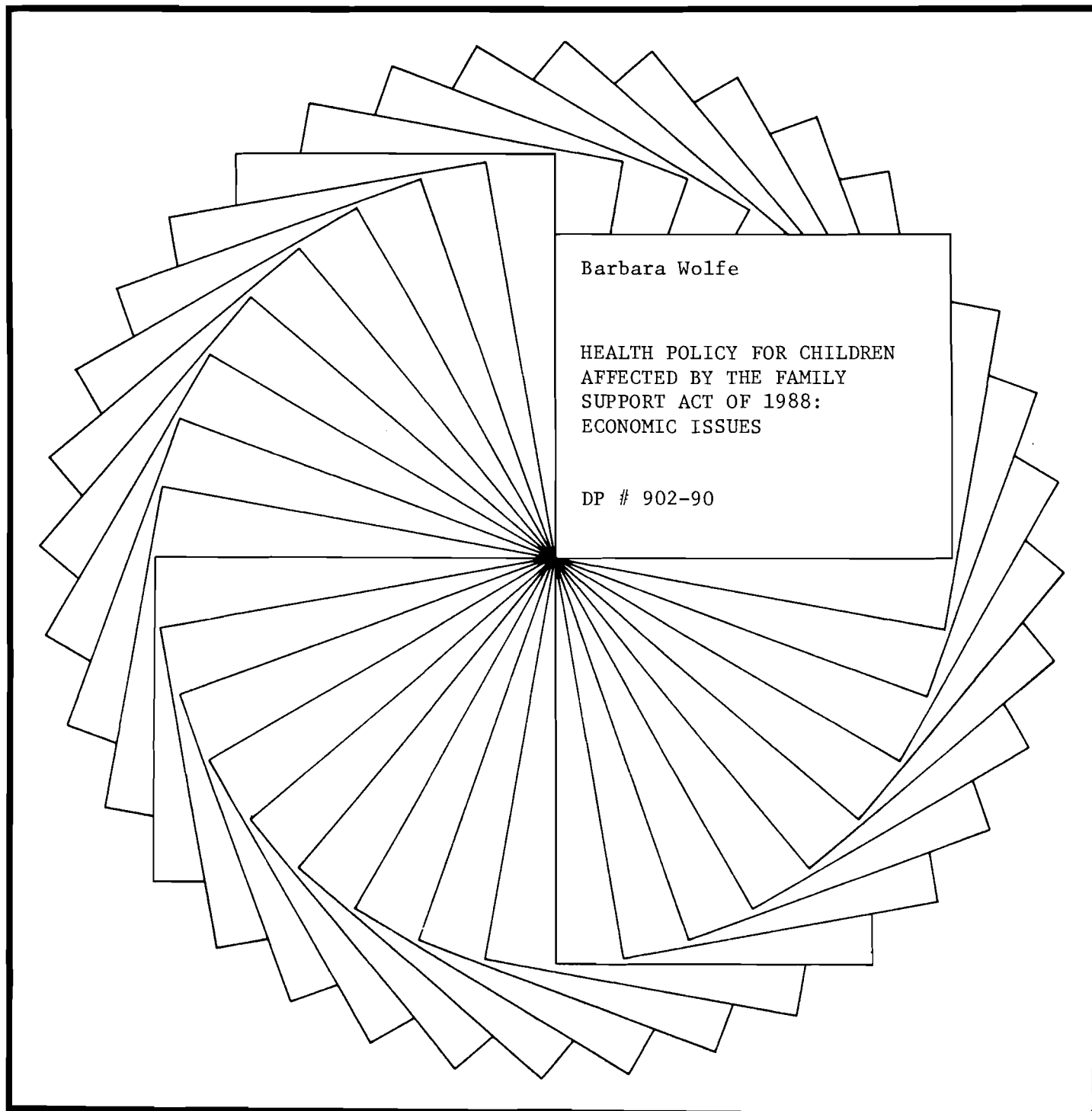


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# IRP Discussion Papers

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HEALTH POLICY FOR CHILDREN  
AFFECTED BY THE FAMILY  
SUPPORT ACT OF 1988:  
ECONOMIC ISSUES

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**Health Policy for Children Affected by the  
Family Support Act of 1988: Economic Issues**

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## **Abstract**

A desire to decrease the number of children who lack health insurance and to decrease the percentage of families dependent on welfare for their livelihood is leading to attempts to free Medicaid eligibility from welfare participation. The Family Support Act of 1988 requires that, beginning in April of 1990, families that lose AFDC eligibility owing to earnings increases remain covered by Medicaid for up to 12 months. This paper analyzes anticipated effects of this Medicaid extension, including the probability of insurance coverage for the target population and the influence of such coverage on medical care utilization and health status. The analysis uses the 1984 wave of the SIPP data. Two alternative strategies are offered for providing health insurance in ways that may have longer-run gains.

## **Health Policy for Children Affected by the Family Support Act: Economic Issues**

Among the large number of children in this country who are poor--12.8 million in 1987, according to Census Bureau figures--are many who receive more limited health care yet have more health problems than their higher-income peers.<sup>1</sup> Private health insurance covers much of the health care enjoyed by more affluent children, while most poor children either have no coverage or are publicly covered under Medicaid. Relying on Medicaid to finance medical care for the poor has several problems: (1) not all poor families are eligible for it, and health care for those not covered is sometimes not received or is postponed; (2) quality of care received may be impaired by the inefficiencies that result from using different care-givers rather than a regular, nonemergency room provider; (3) Medicaid may reduce the labor force participation of poor parents by providing an inducement to receive public assistance, and along with it Medicaid benefits, rather than work. A provision of the Family Support Act of 1988 attempts to redress the last problem in particular by extending, for a limited period of time, Medicaid coverage to families that lose eligibility because their earnings increase.

The effects of this change in Medicaid coverage can be studied by addressing several types of research questions: How many children who would previously have gone without coverage will be covered under the Medicaid extension? Are they older or younger children (under or over age 9)? How does the extension influence utilization of medical care? As a consequence of the Act, are women more likely to accept jobs that do not offer health care coverage? Will their wages tend to be higher than before the Act? What is the potential for receiving private coverage when the Medicaid extension

expires? What will be the response by those eligible if the state exercises its option to charge an income-conditioned premium during the second half of the period of extension?

This paper anticipates some of the answers to these questions. It first describes the nature of Medicaid coverage and the current insurance coverage of the general target population of the Family Support Act. It then considers the expected impact of the Act, discussing the link between insurance coverage and health. Alternative strategies for providing coverage to the target population of the Act are presented as well.

## **COVERAGE OF CHILDREN UNDER MEDICAID**

Medicaid is a joint federal-state public health insurance program that finances medical care for certain categories of people: low-income persons who are aged, blind, or disabled; members of families eligible to receive Aid to Families with Dependent Children (AFDC); and certain other low-income pregnant women and children. The majority (68 percent) of Medicaid recipients are on AFDC, and children make up about 40 percent of all Medicaid recipients. AFDC eligibility depends on state rules, which differ widely in income eligibility limits and in the nature and scope of Medicaid coverage. To be eligible, a family must have income below 185 percent of a standard of need, determined by the state. Standards vary to a considerable degree: for example, in 1989 for a family of three in Kentucky the standard was \$218 per month, but in Illinois it was \$740 per month (U.S. House of Representatives, 1988, p. 539).<sup>2</sup> As a result, more than half of all children in families who are poor according to the Census Bureau

definition are not covered by Medicaid. The situation of poor children deteriorated significantly between 1970 and 1987.<sup>3</sup>

Many states also have a program for the "medically needy," covering those who are in the categories eligible to receive welfare benefits but who have incomes before medical expenses that are somewhat above the state AFDC eligibility limit. To qualify, their incomes after deduction for medical expenses must be below the cutoff for welfare benefits.<sup>4</sup> About 12 percent of Medicaid payments for female family heads and their children are for the medically needy.

As a result of this structure of eligibility, 25 to 40 percent, or between 9.5 and 11 million, of poor families are without health insurance.<sup>5</sup> Among all children living in families below the poverty line, over 50 percent are covered by Medicaid, about 17 percent have private coverage, and the rest, about 30 percent, are uninsured.<sup>6</sup>

Medicaid has grown as a percentage of the total welfare benefit package, increasing the likelihood that persons are attracted onto AFDC to obtain its benefits,<sup>7</sup> and also that, once on AFDC, they have an incentive to remain there. An extensive literature on AFDC and Food Stamps finds strong evidence that these means-tested benefits reduce work effort (see Moffitt, 1988, for a review of this literature). There is far less evidence on Medicaid. The one published study (Blank, 1989) does not find a significant incentive effect, but a study recently completed (Moffitt and Wolfe, 1989), which develops an index of the value of Medicaid for each family, finds strong evidence that Medicaid is an inducement to enter the welfare rolls. The effect is concentrated

among those families whose members have health problems and is more an incentive to enter AFDC than to stay on it.<sup>8</sup>

### **Relationship of Coverage to Utilization of Health Care**

Another drawback to present coverage under Medicaid concerns various aspects of utilization. There is evidence that, controlling for health status, persons with either private or public health insurance are more likely to use medical care than those not covered: children in poor families that receive Medicaid have as many check-ups and immunizations on average as middle-income children, but poor children not covered do not.<sup>9</sup> However, children with Medicaid do not receive care in the same locations as higher-income children with private insurance. Under Medicaid, care is more often received in health clinics, hospital emergency rooms, or outpatient clinics than in private doctors' offices. This pattern tends to reduce continuity of care, which in turn is believed to reduce the quality of care received. Among children whose families go on and off Medicaid rolls, care tends to be received in hospitals, accentuating the problem of continuity and raising the costs of care in real terms relative to care in private settings.<sup>10</sup> Children covered by Medicaid rarely use private care, in part because of the low reimbursement rates paid by Medicaid in a number of states. This problem has in recent years grown more severe, as Medicaid fees increased very little during the 1980s while private physicians' fees continued to rise.<sup>11</sup> A number of private physicians will consequently not provide care to those covered by Medicaid.<sup>12</sup> Since emergency room care is more expensive than the care given by private providers, present expenditures on

Medicaid may exceed even those that would result from a modest increase in reimbursement rates.

Paying attention to utilization is important because it is thought to be connected to health status, although the link is difficult to establish since health is difficult to measure. Infant mortality rates provide one means to do so, but are a very limited measure of differences in health. In some cases, however, the link appears strong. A recent follow-up study of about two hundred patients who lost eligibility for Medicaid in California showed a decline in health status, as measured by mortality and health problems, in comparison with a control group that maintained eligibility (Lurie et al., 1984). Recent results from the Health Insurance Study conducted by the Rand Corporation found only marginal effects from greater use of medical care, but the study compared groups with varying levels of insurance rather than those with full versus no coverage, which is more likely the circumstance of a family that loses Medicaid coverage.

## **CURRENT COVERAGE OF THE TARGET POPULATION**

For purposes of the Family Support Act and of this paper, the target population consists of single mothers and their children. Based on data collected in a four-month period during winter and spring of 1984 in Wave 3 of the Survey of Income and Program Participation (SIPP), Robert Moffitt and I have estimated that approximately 12.9 million children live in such families. Of them, 58.4 percent live in families with income below the poverty line, and another 23 percent live in families with incomes between one and two times the poverty line--the "nearly poor." About half of these children have fair



or poor health, according to reports by their mothers, and the other half are reported to have good or excellent health. Those in poor or fair health are more likely to live in families with incomes below the poverty line than those in better health.<sup>13</sup>

Examination of the insurance coverage of these children indicated that 24.6 percent, about a quarter of this population, had no insurance coverage, just over 40 percent had Medicaid coverage, and slightly more than a third (34 percent) had private coverage. Another 1.1 percent had both private and Medicaid coverage over the four-month period. Two-thirds of children in poor families were covered by Medicaid, but less than 12 percent of those nearly poor had such coverage; more than a third in this group were uninsured. Over three-quarters of children living in families with incomes more than twice the poverty line (i.e., not in or near poverty) had private insurance coverage, yet nearly 20 percent of them had no health care coverage at all.

Children who were reported to have poor or fair health, as opposed to good or excellent health, were more likely to have Medicaid coverage, less likely to have private coverage, and about as likely to have no insurance as healthier children.<sup>14</sup> Children whose mothers were employed were less likely to have any form of health insurance coverage but more likely, if insured, to have private coverage than those whose mothers did not work.

SIPP information from 1984 on employment-based health insurance gives some insight into the likelihood of private coverage. Using evidence from 1984 on employer-based coverage may, however, paint too positive a picture for 1989-1990. There is evidence that employer subsidization of family premiums for health insurance has

declined over the 1980s. For example, the U.S. Department of Labor (1987) reports that the percentage of medium-size and large firms that paid the full cost of family insurance coverage declined from 51 percent to 35 percent from 1981 to 1986.

It is generally acknowledged that the probability of being offered insurance is in part determined by the characteristics of the employer: large firms are more likely to offer coverage than are small firms; the least likely are those with less than 25 employees. Coverage also differs by industry: government and durable goods manufacturing are most likely to offer coverage; retail trade jobs, construction, and service jobs are those least likely. Since single mothers with low skills (those most at risk of being on welfare) are more likely to obtain jobs in retail sales or service jobs, not many will have the option of accepting or purchasing insurance at their place of employment.

The SIPP data (Wave 3) give a fairly detailed picture of the possibilities of employment-based insurance for our population of interest. About 55 percent of the single mothers in our sample were in the work force during 1984. Based on their employment and earnings experience and controlling for individual characteristics such as age, education, health, and training, we conclude that if all single mothers who were below the poverty line worked, about 30 percent would have family coverage and another 5 percent individual coverage, so that about two-thirds would be without coverage. Among women who are nearly poor, 43 percent could be expected to have family coverage if they were in the work force and 9 percent would have individual coverage; nearly half would be without any coverage. Women with higher earnings are

likely to do much better in terms of coverage: more than half will have family coverage and another 11 percent individual coverage. Yet even among this group, more than a third would be without coverage should they join the work force.

The factors that increase a woman's probability of having insurance if employed include being older, having more education, being the head of the household, having good or excellent health, having a disabled child (which increases the value of insurance), receiving child support, working for one employer, working for the government, and working in manufacturing. Factors that decrease the probability of having insurance if employed include living in a state with higher per capita health expenditures, and working in sales or personal services. Working single women with more children are less likely to have individual coverage, and perhaps family coverage as well.<sup>15</sup>

### **ANTICIPATING THE EFFECTS OF THE FAMILY SUPPORT ACT**

The net result of the pattern just described is that the majority of single women with children would lack health insurance coverage if they were employed. The Medicaid extension provided by the Family Support Act, whose goal is to move single mothers from public assistance to self-support through work, is designed to address that problem by continuing Medicaid benefits for AFDC recipients who lose eligibility owing to an increase in earnings and assets. Coverage continues for 12 months; in the second half of this period, states have the option of charging an income-conditioned premium.

The following sections explore the probable effect of the Medicaid extension, looking first at the importance of health insurance for medical care utilization and health.

### **The Links between Insurance, Utilization, and Health**

Health status itself is of course a primary determinant of medical care utilization. A large part of medical care is for treatment of illnesses, but for those with children, a substantial portion is for well-baby and well-child care, including immunizations. Demand for health care is also affected by the factors that influence the demand for essentially all goods and services--the cost of care, including direct costs as well as time and transportation costs, and income. Where the demand for medical care is concerned, time is a significant component, so the location of facilities is important. Direct costs are the out-of-pocket costs paid by the consumer--the actual price charged, minus the amount paid by one's insurer.<sup>16</sup> In the case of full insurance coverage this direct price is, with rare exceptions, zero to the consumer. Insurance thus reduces the direct cost of care and increases the demand for care.

**Determinants of utilization.** For single women and their children, both Medicaid coverage and private coverage significantly increase utilization of outpatient care. For that population in SIPP, we estimated that utilization by those currently uninsured would rise from an average of 3.1 outpatient visits per year to 4.9 if covered by Medicaid or to 5.7 per year with private coverage. Nights hospitalized per year would be less affected, rising from 1.2 on average to 1.4 if covered by Medicaid and to 1.7 if covered by private insurance. For women currently receiving Medicaid, loss of coverage would mean that

expected outpatient visits would decline from 5.7 to 2.2, and nights hospitalized from 1.8 to 1.5. We estimate that, on average, if children who are currently not insured were to be covered by Medicaid, their outpatient visits would rise from 9.4 to 10.6, and inpatient nights would remain at .1. If those currently covered by Medicaid were to lose coverage, the number of outpatient visits would decline from 10.5 to 9.4, and inpatient nights would decrease from .2 to .1. These expected changes are consistent with other findings concerning the role of health insurance on utilization (see, for example, Davis and Schoen, 1978; Lohr et al., 1986). The expectations are based on individual and family characteristics, including health status, age, race, education, mother's marital status, certain state characteristics, and insurance coverage.

A strong research finding concerns the important role that insurance plays in prenatal care. For example, a study conducted in 1986 and 1987 (U.S. General Accounting Office, 1987) found that women who were uninsured were more likely to go without sufficient prenatal care than were those who were insured. The uninsured women reported that the most important barrier to adequate prenatal care was lack of money to pay for it. Those covered by Medicaid were less likely to receive adequate care than those privately insured, and the most commonly reported barrier was lack of transportation (p. 38).

Type of insurance also influences the site of care. In general, children covered by private insurance are more likely to use private offices for ambulatory care than are those who are covered by Medicaid or without coverage. A study of children's use of care in Rochester (van der Gaag and Wolfe, 1982) found that children covered by

Medicaid were more likely to use hospital-based outpatient care and health centers than private offices, whereas those covered by private insurance were more likely to use private offices and less likely to use hospitals and health centers, even after controlling for health status; income; distance to the nearest hospital, health center or HMO; and the number of physicians relative to the population (p. 203).

Overall, then, there is clear evidence that insurance coverage is linked to utilization. Extending Medicaid by 12 months should increase utilization of care by both mothers and children for this period. The care is more likely to be received in clinics than private offices, but barriers in terms of location of facilities and hours of operation will also limit utilization.

**Difficulties in measuring health.** As mentioned above, linking health insurance and utilization of health care to health status is difficult, owing to the difficulty of measuring health status. Infant mortality is often used but is a very gross measure. Other commonly collected data such as prevalence of chronic conditions, self-reported health status, and days ill or days missed from school are not comprehensive and may provide misleading information. Prevalence of chronic conditions is self-reported and may depend on having a diagnosis, which in turn depends on access to medical care. Over time, improved technology may also influence diagnosis, so that a time-series on prevalence of chronic conditions reflects not only health status but these other factors. Self-reported health depends in part on expectations, which over time may change, thus influencing such reports. For example, one person without any symptoms of chronic illness may report herself in only fair health, owing to a strained muscle that causes

difficulty in raising an arm, whereas another person with arthritis may report herself in good health even though she has difficulty raising an arm. Days reported ill or days of school missed may also depend on access to care and on changing views of how childhood illnesses should be treated. Mother's labor force participation may also play a role: mothers who work face a direct opportunity cost when deciding whether or not to keep a child home from school. Changes in questionnaire design also influence reported patterns over time.<sup>17</sup>

**Infant mortality as a measure of health.** Although it is difficult to measure child health in a comprehensive and accurate way, we can draw a general picture of children's health in response to insurance coverage and medical care utilization. First, there is substantial evidence that higher infant mortality rates and more babies of lower birth weight occur among low-income, unmarried, black, and adolescent women, and women without insurance. Low birth weight is itself a predictor of infant mortality and is also associated with high rates of chronic illnesses. A recent report of the Office of Technology Assessment (U.S. Congress, 1988) summarizes results of studies linking prenatal care to birth outcomes. Most studies reviewed found a positive and significant relationship between use of early prenatal care and positive birth outcomes.<sup>18</sup> A 1978 analysis that used somewhat more sophisticated techniques (Corman, Joyce, and Grossman, 1987) found that use of prenatal care was a significant and sizable factor in the reduction of neonatal mortality rates between 1964 and 1977, and its influence was substantially larger among black women than white women. The authors estimate that prenatal care accounted for a reduction of .4 deaths per thousand live births among

whites and 1.9 deaths per thousand live births among blacks over this period. For a point of reference, infant mortality rates in 1977 were 8.7 for whites and 16.1 for blacks. Other important factors include abortions, use of the WIC program,<sup>19</sup> neonatal intensive care, and organized family planning. Since many of these factors also involve medical care, the real contribution of such care is much larger than that of prenatal care alone. Hadley's 1982 study, done at a more aggregate level, found that states with Medicaid programs that did not cover first-time pregnancies had higher neonatal mortality rates than states that did provide such coverage. He also found that availability of medical care, as measured by pediatricians per 1,000 live births, accounted for about 13 percent of the decrease between 1969 and 1978 in infant mortality (Hadley, 1982, p. 98).

**Evidence from the Rand Health Insurance Study.** Another source of information concerning the effect of medical care on health status is the Rand Health Insurance Study. This experiment was designed to assess the impact of cost-sharing on the use of medical care and on health. Persons were enrolled for either three or five years, and comprehensive data on utilization and health status were collected. The results indicate that, if a family faced significant insurance cost-sharing, utilization was reduced, particularly by low-income children. The only health effect detected among those of younger ages, however, was anemia among low-income children (Valdez, 1986, Table 8, p. 25). Among poor adults, reduction in medical care utilization resulted in greater incidence of high blood pressure and fewer corrections for near-sightedness, but not in other health problems. Since, however, this was an experiment conducted over a limited



time and involved a limited number of enrollees, all of whom had quite comprehensive insurance coverage, health effects that occur over a long period or have a low incidence rate would not be likely to be detected.

**Other evidence.** There is other, although limited, evidence on the importance of the utilization of medical care for health. A study in Rochester, New York (van der Gaag and Wolfe, 1982), cited earlier, found that several factors correlated with usage are associated with health, including permanent income, mother's labor force participation, race, and marital status. The net result was that children in the lowest income group and children of divorced parents had the poorest health. Immunizations provide another piece of evidence. They have led to substantial declines in diseases once viewed as major killers or crippers--measles, rubella, polio, diphtheria, and pertussis. Russell (1986) notes that just before the widespread introduction of the measles (Rubeola) vaccine, about 500,000 cases, 400 deaths, and 1,300 instances of mental retardation or other permanent damage to the nervous system were reported annually from the disease, and 5,000 children developed other complications that led to hospitalization (p. 24). After the governmental initiative to vaccinate the population, reported cases dropped dramatically--to 22,000 in 1968. However, a 90 percent immunization rate is needed to eradicate measles, and the percentage of children aged 1-4 who receive vaccination has declined in recent years.<sup>20</sup> Reported cases, though small, are slowly increasing.

This diverse set of studies provides evidence of positive links between medical care utilization and health, links that seem particularly strong for at-risk populations. Many of those who are the target of the Family Support Act are surely in this category.

### **Anticipated Effects of the Act**

This section explores the probable insurance coverage of the target population with and without the new Medicaid provision as well as anticipated usage of medical care. The basis for this analysis is the estimate of utilization and probability of coverage using data from the 1984 Wave of the SIPP. The insurance coverage of the population of interest prior to the introduction of the Family Support Act, discussed above, can be summarized briefly: 41 percent of children in single-mother households are covered by Medicaid, 34 percent by private coverage, and about 25 percent are uninsured. Of those below the poverty line, somewhat less are uninsured, 22 percent, and substantially more are covered by Medicaid, about 65 percent, or nearly two-thirds; very few (12 percent) are covered by private insurance. Those who are uninsured use medical care less than we predict they would if they had Medicaid coverage—conversely, we predict that children covered under Medicaid would use less care if uninsured.

In order to get an estimate of the effect of the Act on insurance coverage and medical care utilization, certain assumptions must be made. We start by assuming the worst case for insurance coverage in order to get an estimate of the maximum expected change due to the Medicaid extension. Assume that as a result of the Family Support Act, all women required to work under its provisions join the labor force and lose their Medicaid coverage. In this case, we project that only 25 percent of children of single mothers would have Medicaid coverage and the percentage of those uninsured would rise to 68 percent. The remaining children would be covered by private insurance. The children covered by Medicaid are primarily those in families with infants or those whose

mother is disabled. If, instead, the Medicaid extension covers all children with family incomes under 185 percent of the poverty line, then we expect that nearly all (99 percent) children of single mothers currently covered would be covered by Medicaid or private coverage--only .6 percent would be uninsured for the period of the extension. The change in insurance coverage would have implications for utilization: for this population, losing Medicaid is expected to reduce physician visits among children by 7 percent and nights hospitalized by 34 percent. Under the one-year extension, their utilization would be similar to current utilization.

We are not, however, able to project the health implications of these changes, except to suggest that children covered by Medicaid or private insurance are somewhat less likely to report poor or fair health. However, the Medicaid extension of the Act is at most for one year. After that period, many of the children of these working mothers are likely to be without health insurance coverage, given the current market for private insurance and current regulations concerning eligibility for Medicaid. This prompts consideration of alternatives to the Medicaid extension, or additions to it.

### **Alternative Strategies for Providing Insurance to the Target Population**

Two alternatives are (1) to expand Medicaid to cover all single mothers and their children in families with incomes up to 185 percent, or let us say twice, the poverty line, or (2) to require that private coverage be provided to all employees (a major policy change). A third could be a combination of the two, offering Medicaid coverage to those with incomes below twice the poverty line, perhaps on a sliding-scale basis when

incomes are 130 percent of the poverty line or greater, and requiring firms to offer private coverage or to pay a tax for the purchase of private plans by employees. Private coverage could be mandated to cover dependents. The effects of these three alternatives for all single women and children in our sample can be sketched as follows. (These estimates are based on the SIPP data and estimates reported in Moffitt and Wolfe, 1989.)

Extending Medicaid to all single-parent families below 200 percent of the poverty line would expand its coverage of all children of single mothers by 21.8 percentage points (about 50 percent), leaving less than 1 percent of such children uninsured.<sup>21</sup> Visits to physicians are expected to increase by about 3.5 percent, and hospitalized nights would rise by a greater percentage--about 14 percent. Mandating private coverage for all employees is expected to increase the percentage of all children with private insurance coverage by 17.5 percentage points (by nearly 50 percent), while 8 percent would remain uninsured, and the remainder would be covered by Medicaid. Physician visits would not increase under this simulation.

Under a combination of these two alternatives, we expect that nearly all children will have some form of health insurance coverage and that the increase in usage will be somewhat less than under the Medicaid coverage for all children in families with incomes less than 1.85 times the poverty line. The expected difference in utilization probably reflects greater out-of-pocket costs of private versus Medicaid coverage, and perhaps different patterns of use by type of provider. The major advantage of any of these alternatives is that they continue beyond one year, thus reducing the incentives to

stop working and to seek care less often, and to reduce the likelihood of receiving poorer quality care. Expanding private coverage also has the potential of improving the quality of care received. Unfortunately these programs are also more expensive than a one-year extension of Medicaid.

### **EVALUATING CHANGES UNDER THE FAMILY SUPPORT ACT**

We turn now to a discussion of issues related to assessing the effect of the Family Support Act on children's health and health care utilization. It must be noted at the outset that it is hard to study the Act's impact on health itself, owing to the difficulty in measuring health and to the fact that many health problems develop over a longer period of time than the 12 months of the Medicaid extension. Furthermore, the Act does not mandate evaluation of the Medicaid extension by means of control groups. Thus, to study its impact, data would have to be collected on utilization, before implementation of the extension.

We can measure changes in two areas that will be affected by the Act: health insurance coverage and health care utilization. The latter includes number of physician visits and of days hospitalized as well as location of care. These may be influenced by both the Medicaid extension and by more work effort of the mother, which might give her less free time during the usual hours of health care delivery and might also cause a shift to private insurance coverage.

### **Quasi-Experimental Design**

To study the influence of the Act in these two areas, we need information resulting from differences in "treatment." Since the Act is a nationwide program rather than an experiment in some states, it seems necessary to collect data on a before-and-after basis.

Women with children under age 3 (or 1, at a state's discretion) are not required to work. Hence, as an alternative to or in addition to before-and-after data collection, it might be possible to compare the health care utilization of children over 3 in families with a child under 3 (or an infant) and those without a young child (or an infant). In a sense, families with infants could play the role of a control group, though they may not be strictly comparable. This is not true of the other excluded group, women who themselves are ill or incapacitated or who are needed in the household because another member is ill. Because such illness may influence health care utilization of all family members, children in these families should not be used as a control group.

If there is any chance of picking up health effects, the sample will have to be both very large and perhaps quite targeted on children with particular illnesses. Large, because otherwise change will not be detected, and/or it will not be possible to determine if the change is due to the Act or other factors. Targeted, because it is most likely that any health effects would be among the children who are particularly at risk or who already had poorer health, since children with chronic illness or handicaps are more likely to be affected by changes in coverage than children in good health. These children could be selected on the basis of prior medical records. For example, children covered by Medicaid who had low birth weight and above-average expenditures at birth could be

identified from Medicaid records. Through the use of an event/expenditure screen children with lead poisoning could be identified by a questionnaire given to the parent. Children at risk, such as those born addicted to drugs or of low weight, are a particularly interesting group that might be targeted for special study. A control group composed of similar children for whom there is no change in insurance and mother's work effort is needed to assess the effect of the Act. A control group could be based on observations prior to introduction of the Medicaid extension or on data on families exempted from the Act because of the presence of very young children.

### Measuring Change

The only change in children's health status found in the Rand Health Insurance study concerned anemia. Egbuona and Starfield (1982) suggest that lead poisoning, otitis media, and psychosocial and psychosomatic problems are particularly prevalent among poor children. These specific conditions are measurable, but would generally require a health examination that might be viewed as too expensive. We should therefore try to define factors for which information could be gained from questionnaires administered to the parent. A new questionnaire known as MOS might be adapted for this purpose. Several items from it as well as the questionnaire used for children's health in the Rand study are attached as examples. School attendance data could also be collected, but as mentioned above this information is not likely to be helpful in measuring health, since it reflects access to medical care as well as parent's work time (or opportunity cost). For

any of the targeted groups, specific measures of health status might be developed, depending on the nature of the group, in consultation with appropriate experts.

It is easier to measure changes in utilization. Recall on utilization is considered likely to be inaccurate if it covers too long a period. The standard periods used in the literature are two weeks, a month, and sometimes a year. Data could be collected on number of visits to a provider and nights hospitalized during any or all of these periods, although the shorter periods are likely to be more accurate. Questions could be included on (1) type of provider used, (2) delay in getting an appointment, (3) transportation to provider, (4) any copayment, (5) treatment, such as whether a drug was prescribed, (6) any follow-up suggested, (7) time of appointment, (8) lab work, radiology work, etc. All of these will enable a more thorough analysis of actual utilization by type of provider than is possible by simply looking at number of visits.

It would also be important to collect data on type of insurance coverage: who is covered, who pays for coverage (for parent and for dependents), extent of coverage, etc. This information should be obtained for families who received AFDC-Medicaid before implementation of the Act and then leave the rolls without taking advantage of the Medicaid extension as well as for those who initially are on Medicaid and then make use of the extension. A final area of study should concern the issue of whether families respond to the income-conditioned premium in the second six months. If families drop out of the program, do they have other coverage? Do they have incomes too high for eligibility? Are they low users or high users of medical care? These questions should of course be tied to analysis of utilization and health.



**Indirect Changes**

Economists generally accept the proposition that employees pay some of any payroll tax, including health care premiums. This may not be the case, however, for low-wage workers, especially those working at minimum wage. An employer who hires a worker at the minimum wage and offers insurance coverage may well face a larger wage bill. (If an employer offers coverage to any employees, the offer must be made to new employees, sometimes with a waiting period.) However, if an employee has other coverage and turns down the offer of private coverage, the employer is hiring a less expensive worker. Thus, the extension could make former welfare recipients more attractive employees, at least for a limited period. And these employees may well turn down private coverage if (1) they can sign up for it later, and (2) it is less generous than Medicaid. The extension could therefore improve private employment opportunities among those eligible for it. And, if a direct premium contribution is required, the employee who turns down the coverage temporarily increases her income, again making a job marginally more attractive. Thus, if the extension has any effect on employment, it should be positive. To determine these effects requires asking employers whether they offer coverage, who pays for the coverage, whether any employees reject the offer, whether there is a clause concerning preexisting conditions, and if so, what length of time is involved and whether insurance can be initiated a year after employment. Similarly, persons covered by the extension should be asked about insurance coverage at their place or potential place of employment, whether they sign up for such coverage, and so on.

There may be a link between a mother's work effort and utilization of medical care as well as the health of her children. One, suggested above, is the limitation on time available to visit medical care providers. This link can be studied through the utilization questions suggested above. A change in days of school missed may reflect medical care use and the parent's need to be at work rather than any change in health itself. This argues against using days of school missed as a variable. Another possible link is a change in use of day care, which might increase a child's exposure to germs and lead to short-run increases in acute illness and use of medical care. It is not clear that this is particularly important in evaluation of the extension, but research should be aware of this possibility.

In sum, a study of the impact of the Family Support Act on children's health requires the use of control groups and measurement of health status of children particularly at risk (although there will be difficulties detecting changes among healthy children); it should be directed at changes in utilization--including changes in type of provider--and must take type of coverage into consideration. Indirect effects and some of the hidden possible distortions in measures of health should be evaluated. The Act may provide an opportunity to study a particular group of at-risk children, those born addicted to drugs, in terms of use of medical care and health, independent of the impact of the Act on these children. Given the increasing number of such children, this possibility deserves serious consideration.

## Notes

<sup>1</sup>According to the National Center for Health Statistics (1988), in 1986 approximately 40 percent of children in families with incomes under \$10,000 were reported to be in excellent health, as compared to 62 percent in higher-income (over \$35,000) families. Nearly 7 percent of children in the lower-income group had activity limitations owing to chronic conditions, as compared to less than 5 percent of children in the higher-income group.

<sup>2</sup>In addition, the family's income after work-related expenses must be less than the state's payment standard, or maximum benefit.

<sup>3</sup>Deterioration took place in both eligibility and depth of coverage. Medicaid coverage was 984 per 1,000 children in poverty in 1978, 737 in 1983, and 813 in 1985. In addition, restrictions enacted in 1981 and 1982 permitted states to extend cost-sharing by recipients to nearly all services, reducing the value of coverage. Congress responded to these declines in coverage with legislation in 1984, 1986, and 1987 that required and enabled states to improve access to Medicaid for poor children and pregnant women: eligibility was extended for four months to families who were on AFDC for at least three of the last six months and who left AFDC because of increased earnings or hours of work; pregnant women whose income and resources would make them eligible for AFDC if they had a child were required to be covered by Medicaid, as were children under 7 (under 5, after 1985) in two-parent families that met the earnings and resources tests. Since 1987, states may extend coverage and receive federal matching dollars for pregnant women and infants whose family incomes are below 185 percent of the poverty

line and to children under age 9 whose family incomes are below the federal poverty level. By 1990, all pregnant women and infants with incomes below the federal poverty line must be covered. In addition, families that lost eligibility for AFDC via the 1981 removal of earnings disregards can retain Medicaid eligibility for nine months.

<sup>4</sup>Family income must fall below 133.3 percent of the maximum AFDC payment for a family of their size, and income net of medical expenditures must fall below the categorically needy standard. The period over which eligibility is calculated--the so-called spend-down period--varies from one to twelve months across the 39 states that have a medically needy program.

<sup>5</sup>About 2 percent are covered by other public programs such as Medicare for the disabled.

<sup>6</sup>These estimates vary according to data source. According to Health United States, 1987, which uses the Health Interview Survey, as of 1986 10.4 percent of all children under 15 were covered by Medicaid, up from 9.8 percent in 1982 and 10.2 percent in 1980. The reported percentage with no insurance was also up--16.1 percent compared to 15.8 percent in 1982 and 12.8 percent in 1980 (National Center for Health Statistics, 1988, Table 117). However, according to preliminary estimates using the 1988 Current Population Survey, which asks additional questions concerning coverage of children, 16.3 percent of children under 15 are covered by Medicaid and 12.9 percent are uninsured (Moyer, 1989, Exhibit 1).

<sup>7</sup>As of 1988, in-kind transfers accounted for over half of all means-tested programs. Medicaid accounted for roughly 70 percent of these transfers, or about 37 percent of the

total package of benefits for the poor. A major "explanation" of this increased share is the decline in the real value of AFDC cash benefits.

<sup>8</sup>This study suggests that coverage at the place of employment plays a larger role in influencing women's work-welfare choices than Medicaid. For example, if private coverage equivalent to Medicaid were extended to all single women who worked, the study predicts a decline in the AFDC caseload of over 20 percent and an increase of more than 15 percent in employment among these women. This argues for providing health insurance at the place of employment and for providing benefits that are similar to those of Medicaid.

<sup>9</sup>According to a 1980 national survey (National Medical Care Utilization and Expenditure Survey, NMCUES), about 18 percent of children under 2 without health insurance did not see a health provider in the previous year. A study in 1969, just three years after the introduction of Medicaid, found that among Medicaid recipients in good health, average annual visits to physicians were 4.09, compared to 2.69 among a similar group of low-income persons who did not have coverage. Among those in average health, annual visits were 4.95 versus 3.36, and among those in poor health, 7.1 versus 5.12 (Davis and Reynolds, 1976, p. 404).

<sup>10</sup>A recent report of the GAO (1987) found that the poor who are uninsured use fewer services, receive more free care, and are more likely to use hospitals as their regular source of care.

<sup>11</sup>In a 1986 study (Holahan and Cohen, Table 21, pp. 63-64) the ratio of Medicaid to Medicare fee levels for specialists are reported by state for 1979 and 1984. In all but

three states the ratio fell over this period. For New York State in 1984, the ratio was .23, for Wisconsin, .78.

<sup>12</sup>A 1984 study (Mitchell and Schurman) of physician participation rates by regions of the country found that the Medicaid participation rate of obstetricians was particularly low in the South (60.4 percent) because of low reimbursement rates. Even in the highest region the participation rate was under 70 percent.

<sup>13</sup>The differences are that 68.9 percent of those in poor or fair health are living in poverty as compared to 47.8 percent of those in better health.

<sup>14</sup>The weighted percentages are 25.5, 48, and 26 for no insurance, Medicaid, and private insurance coverage, respectively, for the 50 percent of these children for whom poor or fair health was reported. Among the 50 percent of children who have reported good or excellent health, the respective percentages are 23.7, 32.7, and 42.2.

<sup>15</sup>These results are based on a multinomial logit estimation equation (Moffitt and Wolfe, 1989, Table 13).

<sup>16</sup>In fact the price charged by a provider of medical care may not be the price received by the provider. Many insurers, in particular public insurance, pay by a fee schedule. The relevant direct price should be based on that received rather than the amount billed.

<sup>17</sup>For example, the National Health Interview Survey changed questions over the 1981-83 period in a way that may itself explain a large portion of the reported 32 percent increase in activity limitations.

<sup>18</sup>Of 26 studies based on birth and death records, 20 find a positive and significant

relationship between use of prenatal care and positive birth outcomes; 25 studies of the effectiveness of programs aimed at providing prenatal care to specific groups of women produce a varied picture of incremental effectiveness.

<sup>19</sup>WIC is the Supplemental Food Program for Women, Infants and Children, which provides food, nutrition education and counseling, and health care to low-income, pregnant and postpartum women, infants, and children. WIC's expenditures were about \$1.5 billion in 1986 and have been increasing as a share of all U.S. public health spending. Funds are allocated to states by a formula that takes percentage of eligible women and children served into account. As of 1988, about half of all eligible persons received services (Children's Defense Fund, 1989, pp. 78-79).

<sup>20</sup>According to data from the Division of Immunization, Center for Preventive Services, reported in Health United States, 1987, the rate of immunization for children 1-4 for measles hit a high of 65.9 percent in 1976 but has consistently declined since then, reaching only 60.8 percent in 1985.

<sup>21</sup>Covering all uninsured children under 9 years of age would also substantially cut down on the number of children without insurance. Pursuing this policy should cut the percentage of children uninsured by about 11 percentage points. Visits are expected to increase by 1.2 percent under this scenario.

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