# Local Responses to Expanded Medicaid Coverage For Pregnant Women

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CONCERN ABOUT HIGH INFANT MORTALITY AND morbidity in the United States and the erosion of private insurance coverage sparked major expansions in the Medicaid program that began in 1986 with the aim of increasing prenatal and other health services for pregnant women. Congressional action was based on two assumptions: (1) financial barriers were an important obstacle to care, and (2) prenatal care use is a critical determinant of birthweight, which, in turn, affects infant mortality and morbidity (Institute of Medicine 1985; Brown 1989).

The primary thrust of the legislation was to decouple Medicaid from eligibility for the Aid to Families with Dependent Children (AFDC) program, to give states the option of extending Medicaid coverage to pregnant women whose family incomes reach 185 percent of the poverty level, and, eventually, mandated coverage for those with incomes up to 133 percent of the poverty level. Additional legislation gave states the option to provide Medicaid coverage for enhanced services that deal directly with behavioral, attitudinal, and nutritional factors and to implement improvements in the enrollment system in order to facilitate more timely use of prenatal care among Medicaid women.

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Although the later legislation mandated a minimum eligibility standard, most of the changes affecting pregnant women were optional, giving states considerable latitude over the form and timing of their expanded coverage and the manner in which they implemented changes in enrollment processing and enhanced services programs. Moreover, each state's Medicaid program and public health system were unique at the outset. In addition, some states made adjustments in obstetric reimbursement levels, and others shifted state funds away from traditional Maternal and Child Health (MCH/Title V) providers to finance the expansion of Medicaid. Therefore, the expansions assumed essentially 51 forms, each bearing its own distinctive features and potential impacts.

The wide range of state experience can be expected to yield innumerable effects that may not add up to a large overall impact on infant mortality and morbidity. Concern exists, for example, that, despite the promise of the expansions to remove financial barriers to care, other difficulties remain that could prevent the new policies from realizing their full potential. Guyer (1990) and Schlesinger and Kronebusch (1990) argue that although insurance coverage may be necessary to improve birth outcomes, it may not be sufficient to ensure that low-income women gain access to comprehensive and timely prenatal care. Recent analysis from California by Braveman et al. (1993) validates these concerns. Braveman and colleagues argue that both the shortage of obstetric providers willing to serve Medicaid patients and delays in obtaining Medicaid eligibility continue to obstruct the goal of assuring adequate and timely prenatal care for Medicaid-covered women. In the belief that state and local experiences may reveal the remaining obstacles and suggest additional ways to stimulate greater overall improvements in birth outcomes, the Urban Institute, as part of a larger national study, conducted case studies in four states.

The following sections outline the methodology used to conduct the case studies, describe Medicaid policies in the four states, and detail the major findings from our case studies. The final section details the implications of our analysis for understanding the likely impacts of the expansions and suggests ideas for future research.

## Methods

The research design follows the standard explanatory case study methodology as described by Yin (1989); it consisted of both site visits and

analysis of extant data. A case study framework was chosen to provide contextual information about the implementation and impact of the expansions on access to prenatal care. When complex program changes are evaluated, case studies are critical to understanding the reasons for observed program impacts (Billheimer 1989).

## *Site Selection*

Case studies were conducted, between April and June of 1992, in Michigan, California, Georgia, and Tennessee, which were chosen because a larger study plans a multivariate analysis that relies on Medicaid claims and eligibility files available only in these states. Two local areas in each state were selected for in-depth analysis, among them, San Diego County and Oakland (Alameda County), California; Savannah and Washington County, Georgia; Detroit (Wayne County) and Berrien County, Michigan; and Memphis (Shelby County) and Monroe County, Tennessee. The site selection process included a review of service statistics such as Medicaid-covered deliveries, outcome measures such as infant and neonatal mortality rates, and demographic characteristics such as residential location and race. Although they were not representative, the sites were selected to provide a range in pre-expansion infant mortality rates and levels of urbanization across the four states (see table 1). Input from state officials was also considered in making the final site determinations.

## *Data Collection*

Data for the case studies were collected in two phases: In the first, telephone interviews were conducted with state Medicaid and MCH directors and with state advocacy groups like the American College of Obstetricians and Gynecologists (ACOG) or Healthy Mother/Healthy Baby (HMHB) coalitions. At this time, state officials identified point persons at local health departments in potential sites. MCH officials in Tennessee were advised not to participate in the study, and they asked us not to contact local health departments because a class action suit had been filed against the state concerning access to prenatal care. Information in Tennessee, therefore, was gathered from other respondents and from court documents filed in the class action suit. In the second phase, in-person interviews were conducted with local health and MCH departments, health care providers, and representatives from advocacy groups. A snowball sampling framework (McCall

TABLE 1
Level of Urbanization and Infant Mortality Rates for Selected Case Study Sites

| Site | Level of urbanization | Infant mortality rates per 1,000 live births between 1981 and 1986 | | |
|---|---|---|---|---|
| | | Infant mortality | White infant mortality | Nonwhite infant mortality |
| California | | | | |
| Oakland[a] | Large MSA | 9.8 | 8.7 | 11.5 |
| San Diego County | Large MSA | 9.1 | 8.8 | 10.1 |
| Georgia | | | | |
| Savannah[a] | Small MSA | 15.6 | 10.1 | 21.5 |
| Washington County | Rural | 17.9 | 8.6 | 23.6 |
| Michigan | | | | |
| Detroit[a] | Large MSA | 15.8 | 9.5 | 23.5 |
| Berrien County | Small MSA/rural | 13.3 | 10.2 | 22.1 |
| Tennessee | | | | |
| Memphis[a] | Medium MSA | 14.9 | 8.3 | 20.3 |
| Monroe County | Rural | 10.3 | 10.1 | 16.4 |

[a] The infant mortality rates for the counties in which these cities are located are reported.
*Source:* Area Resource File 1990.
*Abbreviation:* MSA, metropolitan statistical area.

and Simmons 1969) was used to identify potential interviewees at the local level. Beginning with initial contacts in local health departments, an exhaustive sample of providers and advocates was compiled for each site. From this, a purposive sample was drawn (Babbie 1986). In each site, the large providers of prenatal care to low-income women were selected: when existing in a site, these included hospital, community, and county clinics, and, in some cases, private physician practices. Where present, innovative programs were selected. Advocates who had played a major policy role at the local and/or state level were sought out.

In both phases semistructured interview guides were used to collect data. Separate guides were developed for each of the following types of informants: state Medicaid directors, state MCH directors, state advocacy organizations, local health department officials, and local prenatal care providers (separate interview guides were developed for community and

county clinics, hospital clinics, and private physicians). Data were collected from each informant regarding the nature of Medicaid and MCH programs before the expansion, prenatal care supply, access to care, outreach, the Medicaid eligibility process, and changes in the population at risk.

### *Extant Data*

We also relied on published and unpublished data from other sources. Medicaid eligibility levels were obtained from the National Governors' Association; physician fees were obtained from an Urban Institute survey of Medicaid directors; malpractice insurance information was obtained from an Urban Institute survey of the major liability insurers in each state; the methods used to finance the expansions were obtained from an Urban Institute phone survey of Medicaid and MCH directors; and Medicaid-covered deliveries before the expansion were obtained from a survey of Medicaid directors by the Alan Guttmacher Institute. Other data were derived from the area resource file and the natality files at the National Center for Health Statistics.

### *Limitations*

Our analysis has limitations: first, in the generalizability of findings based on eight sites that are not nationally representative; second, in the use of a case study methodology that inevitably involves elements of subjectivity, a disadvantage we tried to minimize by quantifying our findings whenever possible; third, in the reality that case studies cannot be used to infer causality; and, fourth, in the fact that no information was collected from clients or from the target population (low-income women).

## Medicaid and Other Policies in the Four States

The four study states took different routes to implement the eligibility changes, enrollment processing, financing, outreach, and services covered under the Medicaid expansions. In addition, Medicaid physician payment and malpractice premiums varied both at the outset and over the expansion period.

## *Changes in Eligibility*

The four states varied considerably in the speed at which they took advantage of the federal options and in the magnitude of change that they engineered (table 2). Tennessee was the first to take advantage of the options, extending eligibility to women up to 100 percent of poverty in July 1987. It did not raise the threshold further until January 1990 (150 percent), acting again in July 1991 (185 percent). Michigan raised its standard to 100 percent of poverty in January 1988 and to 185 percent later that same year. California and Georgia expanded coverage relatively late. California began covering pregnant women, including un-

TABLE 2
Four States' Approaches to Medicaid Expansion with Eligibility as a Percentage of Poverty[a,b]

| Year | State eligibility level | | | | Federal options and mandates |
|---|---|---|---|---|---|
| | California | Georgia | Michigan | Tennessee | |
| Pre-expansion | 81% | 34% | 61% | 45% | – |
| 1987 | – | – | – | 100% (October) | 100% (optional) (April) |
| 1988 | – | – | 100% (January); 185% (October) | – | 185% (optional) (July) |
| 1989 | 185% (July) | 100% (January) | – | – | 75% (mandated) (July) |
| 1990 | 200% (January) | 133% (April) | – | 150% (January) | 133% (mandated) (July) |
| 1991 | – | – | – | 185% (July) | – |

[a] Date of implementation noted in parentheses.
[b] Assets tests were removed by the federal government in 1987, by Michigan and Tennessee in 1988, and by Georgia in 1989. California retained the assets test and was alone in adding coverage for undocumented aliens, in October 1989.
*Source:* Hill 1992.

documented aliens, up to 185 percent of the poverty level only in 1989, although it then raised the threshold higher than any of the four states (200 percent) in January 1990. Georgia raised its eligibility level to 100 percent of the poverty level in January 1990, and to 133 percent in April of the same year. All states except California dropped the assets test.

## *Enrollment*

Federal legislation gave states the option both to "outstation" eligibility workers (the placement of eligibility workers outside of welfare offices) and to implement the following innovations: presumptive eligibility (the issuance of temporary Medicaid cards to pregnant women who meet the income criterion), expedited eligibility (the quicker processing of Medicaid applications for pregnant women), and continuous eligibility (the assurance of ongoing Medicaid coverage during pregnancy) programs in order to hasten the Medicaid enrollment process. Table 3 defines and identifies the changes made in the four study states. Tennessee was the only state to adopt presumptive eligibility. All four implemented continuous eligibility and some outstationing of eligibility workers. Both California and Georgia adopted expedited eligibility. All but Tennessee shortened the application form for pregnant women. Michigan adopted a strategy that technically does not fall into any of these categories. Its approach combined expedited and presumptive eligibility, which meant that a pregnant woman who met the income guideline would receive an immediate guarantee of state pay-

TABLE 3
Methods Used in Four States to Streamline Medicaid Eligibility by 1992

| Method[a] | California | Georgia | Michigan | Tennessee |
|---|---|---|---|---|
| Presumptive eligibility | | | | X |
| Expedited eligibility | X[b] | X | | |
| Outstationing of eligibility workers | X[b] | X | X | X[c] |
| Shortened application form | X | X | X | |
| Continuous eligibility | X | X | X | X |
| Other | | | X | |

[a] See text for description of methods.
[b] Counties were given an option.
[c] Outstationing in high Medicaid volume hospitals.

ment for her prenatal care and delivery. Although California implemented both outstationing of eligibility workers and expedited eligibility, it could not enact these measures statewide because of its inability to require counties to provide services without appropriating funds for those services.

## *Physician Payment*

Reimbursement rate increases for physicians varied also (table 4). Both Georgia and California virtually doubled Medicaid fees in the early phases of the expansions. Michigan raised its fees to physicians by 46 percent before implementing the expansions and subsequently left them essentially unchanged. Tennessee did not raise its fees until 1991, when they were more than doubled. In 1990, Medicaid fees for a vaginal delivery as a percentage of private fees were 56 percent in California, 78 percent in Georgia, 47 percent in Michigan, and 59 percent in Tennessee (Holahan 1991). California also changed fiscal intermediaries in an effort to reduce provider hassles and payment delays.

## *Malpractice Insurance*

There were no data available on malpractice fees for obstetricians in the pre-expansion period. Data were available for 1991 (table 5). Malpractice premiums for obstetricians varied widely across the states by this time. Except for Michigan, malpractice premiums in each of the states were lower than the national average (Zuckerman, Norton, and Wadler 1992). However, average yearly malpractice premiums for obstetricians

TABLE 4
Medicaid Physician Fees for Normal Delivery, 1986–91[a]

| State | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|
| California | $224 | $224 | $232 | $487 | $570 | $520 |
| Georgia | 413 | 450 | 690 | 901 | 901 | 901 |
| Michigan | 256 | 280 | 371 | 373 | 373 | 381 |
| Tennessee | 344 | 344 | 344 | 344 | 344 | 725 |

[a] Fees are for procedure 59410: vaginal delivery only (with or without episiotomy, forceps, or breech delivery), including in-hospital postpartum care.
*Source:* Urban Institute Medicaid Fee Survey.

TABLE 5
Average Malpractice Premiums for Obstetricians, by State and Relative to National Average in 1991[a]

| State | Weighted average malpractice premium | Relative to national average |
|---|---|---|
| California | $38,478 | .86 |
| Georgia | 41,175 | .92 |
| Michigan | 111,115 | 2.50 |
| Tennessee | 30,844 | .69 |

[a] One-million/three-million-dollar mature claims made policy.
*Source:* Zuckerman et al. 1992.

in Michigan in 1990 were $111,115, more than twice that of the next highest state. In addition, the malpractice reform in California that was initiated in the mid-1970s began to be incorporated into malpractice premiums by 1986. In 1985, malpractice premiums (for all physicians) in California were 65 percent above the national average, but fell to just 12 percent above the national average a year later (Zuckerman, Welch, and Pope 1987).

## *Financing*

All four states used new appropriations to finance the expansions, at least to some extent. Georgia, Michigan, and Tennessee also generated funds by transferring monies from MCH and perinatal programs into Medicaid. States had a strong incentive to transfer state funds for MCH programs, for which no federal match was available, into Medicaid in order to receive additional federal funds. The most extreme case was Tennessee, where the initial expansion to 100 percent of poverty was financed by shifting the entire state MCH budget for prenatal care to Medicaid. California made funds available to disproportionate-share hospitals for developing and/or expanding perinatal programs in an effort to increase the capacity of the prenatal care system.

## *Outreach*

Outreach programs, often joint efforts among Medicaid, MCH departments, advocacy groups, and the local media, were implemented in each

state. Outreach efforts across the states differed in both the magnitude and time of initiation. In 1990 and 1991, respectively, Michigan and California implemented large-scale multimedia campaigns to inform pregnant women about the expanded eligibility and the importance of prenatal care. In Michigan, outreach efforts also included the advertisement of referral hotlines for pregnant women. Outreach in Georgia was limited to inserting information about the expansions into utility bills and WIC mailings and expanding a hotline that offers referrals for obstetric and gynecologic (ob/gyn) services. In Tennessee, a free hotline was set up in early 1992 to help women find prenatal care services, but its existence was never publicized. Local outreach efforts included developing hotlines and recruiting local physicians.

### *Enhanced Services*

The Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 allowed states to offer and develop comprehensive, preventive programs for pregnant women. These programs could include an enhanced package of services, which traditionally has included risk assessment, health education, nutritional and psychosocial counseling, home visiting, transportation, and prenatal vitamins. The four states studied in this project developed basically two types of enhanced service programs. The programs in California and Michigan were very comprehensive, offering a full range of services and certifying numerous types of providers to offer enhanced services. Georgia and Tennessee's programs comprise a more limited range of services that could only be provided by health departments. Table 6 outlines the services covered in each state.

## Results

In this section, we report on how Medicaid's role in financing deliveries has changed during the expansion period and on the effectiveness of changes in the Medicaid eligibility determination process. We describe as well the changes we observed in prenatal care use, following this with a report of our findings on the supply of prenatal care to low-income women and other factors possibly affecting prenatal care use by Medicaid-covered women during the expansion period.

TABLE 6
Enhanced Service Programs

| State | Program name | Effective date | Enhanced services offered | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Case coordination | Risk assessment | Health education | Nutritional counseling | Psychosocial counseling | Home visits | Transportation |
| California | Comprehensive Perinatal Services Program | 1989 | X | X | X | X | X | – | – |
| Georgia | Right from the Start | 1989 | X | X | – | – | – | X | – |
| Michigan | Maternal Support Services | 1987 | X | X | X | X | X | X | X |
| Tennessee | Help Us Grow | 1989 | X | X | X | – | – | X | – |

## *Percentage of Births Covered by Medicaid*

The expanded Medicaid coverage led to a large increase in the percentage of births covered by Medicaid in all four states (table 7). Before the expansions, 17 percent of all births nationally were covered by Medicaid (Alan Guttmacher Institute 1987). Georgia was at the national average; the other three study states were above it. Medicaid officials reported that, in 1992, Medicaid covered more than 50 percent of all deliveries in Georgia and Tennessee, 35 percent in Michigan, and more than 33 percent in California. Some respondents, however, claimed that many of these pregnant women were receiving subsidized prenatal care in community, hospital, and county clinics before the expansions which suggested that the financing of prenatal care was simply being shifted from the state/county/provider level to the federal/state level.

## *Enrollment Processing*

We expected that improvements in Medicaid enrollment systems would reduce the waiting time between application for Medicaid and the receipt of Medicaid coverage. Moreover, we expected to find greater reductions coinciding with sites where multiple strategies were implemented and adequate resources had been committed. Although the average waiting period for gaining Medicaid coverage for prenatal care had been considerably shortened because of changes in the application process for pregnant

TABLE 7
Estimated Number of Births Paid for by Medicaid
in the Pre- and Postexpansion Period

| State | Pre-expansion[a] | Postexpansion[b] |
|---|---|---|
| California | 24.3% | 33% |
| Georgia | 17.4 | 50 |
| Michigan | 25.0 | 35 |
| Tennessee | 20.3 | 50 |

[a] Based on 1984–85 data from Kenny et al. (1986).
[b] Based on information collected from state MCH and Medicaid officials.

women, we discovered that progress was not uniform within or across the sites.

*Expedited Eligibility.* Expedited eligibility programs were instituted in California and Georgia. Respondents indicated that neither program received adequate staff time to effect progress. In California, the state cannot require counties to provide services unless the state appropriates funds for these services. Thus, while California allowed counties to implement expedited eligibility programs, counties had a great deal of flexibility in organizing the expedited eligibility process, and no additional state funds were allocated for the program. Consequently, we found the effectiveness of the program varied by county and depended, in part, on county resources and commitment.

In Alameda County, California, the waiting period for pregnant women applying at welfare offices was still often as long as 45 days because the eligibility workers could not handle the large caseload. In contrast, in San Diego, most women only wait five days between applying for Medicaid and receiving Medicaid eligibility under the expedited program. There, women who are receiving care from private physicians or who cannot get an appointment with an outstationed eligibility worker apply for expedited Medicaid eligibility at the welfare department, which has designated special eligibility workers to process applications only for pregnant women.

In Georgia, all applications for Medicaid go through the welfare system for processing; although applications for pregnant women were supposed to be expedited, no additional staff was hired to deal with the increase in applications. The state did print a shortened eligibility form for pregnant women on pink paper so that pregnant women's applications could be more easily identified. Under Georgia's expedited eligibility program, the process still usually takes two months.

*Presumptive Eligibility.* Tennessee was the only study state to implement a presumptive eligibility program. Tennessee's program appears to have reduced the time between application for Medicaid and approval of coverage for prenatal care. Respondents noted two weaknesses to this program that may apply generally to presumptive eligibility programs. The first is that obtaining full Medicaid coverage requires a later, separate trip to the county welfare office or a hospital with outstationed eligibility workers. This appears to inhibit some women from applying for Medicaid, as evidenced by the fact that 15 percent of the pregnant

women with presumptive eligibility fail to gain full Medicaid coverage in Tennessee because they do not file a full application. The second weakness is that private physicians appear reluctant to accept presumptive eligibility cards because of the fear that the pregnant women will not subsequently qualify for full eligibility. Although Medicaid officials stated that physicians in Tennessee accept presumptive eligibility cards, other respondents indicated that many private physicians were reluctant to accept presumptive eligibility cards because of this fear. In fact, of those women who are granted presumptive eligibility, only 70 percent ultimately attain full Medicaid coverage.

*Michigan's Eligibility Process.* The approach implemented in Michigan essentially combines both presumptive and expedited eligibility, and it appears to address the problems found in Tennessee. Under the Michigan program, the state immediately guarantees reimbursement for prenatal care and delivery services to pregnant women who successfully complete the Medicaid application form, meet the income guidelines, and have a social security card. This form can be completed at clinics and all health departments and requires no additional trip to the welfare office. The immediate guarantee of coverage from the state appears to make Michigan providers more willing to accept pregnant women as patients and has virtually reduced to zero the waiting time for eligibility.

*Outstationing of Eligibility Workers.* California's outstationing program appears to have successfully hastened the eligibility process for women receiving care in clinics. In California, the state earmarked monies for outstationing an additional 262 eligibility workers in county health departments, hospitals, and community health centers. Although some counties chose not to take advantage of the outstationed eligibility workers, those that did were able to speed Medicaid enrollment of pregnant women. Both Alameda and San Diego Counties chose to take advantage of the option to outstation eligibility workers. In both sites, outstationed workers travel to community, county, and hospital clinics one or two days a week to take applications from pregnant women. In addition, providers use liaisons to assist pregnant women in filing their applications so that outstationed workers can meet with more pregnant women. The one drawback of the program mentioned by providers was the small number of appointment slots. Nonetheless, most women being cared for in clinics were receiving their Medicaid cards within five to ten days of application.

## *Prenatal Care Use*

We expected that by providing low-income, uninsured women with Medicaid coverage and improving the enrollment system, more women would initiate prenatal care in the first trimester and fewer would receive late care. The findings did not conform to this expectation.

Two different measures of prenatal care use were examined, using natality files (birth records) from the National Center for Health Statistics: (1) the percentage of women initiating care in the first trimester, and (2) the percentage of women receiving care very late, that is, initiating care in the third trimester or receiving no prenatal care at all. Initiation of prenatal care in the first trimester showed very little improvement in either absolute or percentage terms (see table 8). In fact, with the exception of Tennessee, the percentage of women receiving care early in pregnancy declined. The percentage of women receiving very late or no prenatal care remained virtually unchanged in Georgia and Michigan,

TABLE 8
Percentage of Women Initiating Prenatal Care in the First Trimester and Percentage Receiving Very Late Care[a] or No Care

| Geographic region | 1986 | 1987 | 1988 | 1989 | 1990 | Percentage point change | Percentage change |
|---|---|---|---|---|---|---|---|
| First trimester | | | | | | | |
| National | 75.9% | 75.9% | 75.9% | 75.4% | 75.7% | −0.2% | −0.3% |
| California | 75.3 | 75.9 | 75.2 | 72.5 | 72.2 | −3.1[b] | −4.1 |
| Georgia | 73.4 | 72.4 | 73.2 | 72.8 | 73.1 | −0.3 | −0.4 |
| Michigan | 80.3 | 80.7 | 79.9 | 79.0 | 79.4 | −0.9[b] | −1.1 |
| Tennessee | 75.1 | 75.7 | 75.4 | 76.4 | 77.5 | 1.031[b] | 1.4 |
| Late care | | | | | | | |
| National | 6.0 | 6.2 | 6.1 | 6.5 | 6.1 | 0.1 | 0.9 |
| California | 5.7 | 5.7 | 6.2 | 7.3 | 7.1 | 1.4[b] | 28.0 |
| Georgia | 6.4 | 6.7 | 6.9 | 6.8 | 6.7 | 0.3[b] | −3.0 |
| Michigan | 3.4 | 3.4 | 3.7 | 4.3 | 4.1 | 0.7[b] | −0.1 |
| Tennessee | 5.5 | 5.6 | 5.2 | 4.9 | 4.7 | −0.8[b] | −20.0 |

[a] Very late care is defined as care initiated in the third trimester.
[b] 1990 is significantly different from 1986.
*Source:* Urban Institute analysis of National Center for Health Statistics, natality files.

increased by 28 percent in California, and fell by 20 percent in Tennessee. With the exception of Georgia, the percentage of women initiating prenatal care in the first trimester and the percentage receiving very late, or no, care differed significantly between 1986 and 1990.

## *Supply of Prenatal Care to Low-Income Women*

The supply of prenatal care available to Medicaid-covered pregnant women by physicians, hospital outpatient departments, and community and county clinics in many of the sites increased after the expansions. We also observed the introduction of proprietary providers, who specialize in serving Medicaid-eligible women. In addition, we observed growth in innovative service delivery approaches, which, in turn, became an important source of care in areas that have traditionally lacked obstetricians. Nonetheless, long waiting lists and the rejection of clients by some community and hospital clinics in a number of sites suggests that the demand for prenatal care for low-income women outstrips supply in some areas.

*Physicians.* We expected that the expansions would lead private physicians to increase the supply of prenatal care services to Medicaid women, in part because the newly eligible women were likely to live in closer proximity to private physicians than were traditional Medicaid enrollees, and in part because the expansions should lower uncompensated care burdens and raise the market dominance of Medicaid. At the same time, we recognized that the expansions in and of themselves would not correct problems that have deterred private physician supply in the past: low Medicaid reimbursement rates relative to private fees, administrative hassles, high malpractice fees, and fears that private patients will be driven away or that Medicaid women are more litigious than other patients. Therefore, we also expected that the supply of physicians would grow most rapidly in areas or states that had instituted policies designed to address these problems.

We found a wide range of physician behavior both across and within the study states. California illustrates the range of physicians' reactions to the expansions and to other policies. Within some areas of California, according to California ACOG representatives, physician participation in Medicaid has increased significantly, and the Medicaid caseload is spreading over a larger number of physicians. ACOG reports that, in 1987, 20 percent of California obstetricians accounted for 80 percent of

all Medicaid obstetric care. By 1992, 50 percent of the obstetricians accounted for 80 percent of the care provided to Medicaid recipients, and 70 percent of California obstetricians were taking Medicaid patients.

Respondents attributed increased physician participation to a number of factors. First, the California Medicaid program more than doubled reimbursement rates for a normal delivery between 1988 and 1989, changed the fiscal intermediary for claims processing, and developed a toll-free number to resolve payment problems. The latter two changes were credited with significantly reducing administrative hassles by decreasing the number of claims denials and suspensions. Second, malpractice premiums were reduced significantly in the year before the expansion. Third, physicians perceived the newly eligible women to be more compliant and more likely to keep appointments than the traditional Medicaid population.

Physicians' behavior was quite different in the two sites we visited in California. In 1988, the local ACOG identified 44 obstetricians in San Diego who were taking Medicaid patients. By 1991, the number had risen to 140, with 92 taking at least one new Medicaid patient a month. Respondents in San Diego attributed the increase in participation to the combination of state policy changes, local efforts, and market factors. Local efforts included the recruitment by ACOG of obstetricians to provide care to one or two Medicaid patients a month and referrals to physicians through a hotline, which allows physicians to limit the number of referrals they receive. At the same time, private practice obstetricians in San Diego faced increased health maintenance organization penetration and the bankruptcy of a large managed care organization. Respondents claim that, together, these factors accounted for the increase in physician participation in San Diego County. Despite the observed increase, they also note that, in a number of areas in San Diego County, there are no physicians serving Medicaid patients and that access to care remains a problem for many Medicaid-eligible pregnant women. In Oakland by contrast, only about six private physicians participated in Medicaid in 1991, compared with 80 in 1982. Respondents attributed this decrease to historic problems with Medicaid physician payment policies, an unwillingness of new (starting) obstetricians to locate in underserved areas in Oakland, and the supply shortage in the private market.

In Georgia, both Medicaid officials and representatives from Continuum, the state's HMHB coalition, asserted that physician participation in Medicaid had increased over the expansion period, although neither

could provide physician participation rates for multiple years to confirm their view. Despite these reported increases, Continuum estimates that roughly 40 percent of ob/gyns in Georgia are now taking Medicaid patients, a rate below the national average. Access to physicians seems to be a much greater problem in urban than in rural Georgia; 95 percent of rural physicians serve Medicaid patients, in contrast to only 2 to 3 percent of urban practitioners.

Medicaid officials in Georgia attributed the increase in physician participation to Medicaid fee increases and to work by Continuum. Between 1987 and 1989, Medicaid fees for a normal delivery doubled. In addition, Continuum developed a hotline for physician referrals. Continuum also worked to increase physicians' willingness to participate in Medicaid by allowing them to determine the number of Medicaid referrals they would accept, which, according to respondents, allayed physician concerns about becoming a Medicaid practice.

Respondents in Michigan and Tennessee reported that no significant increases in physician participation occurred over the expansion period. Respondents in Michigan consistently cited high malpractice premiums, coupled with low Medicaid reimbursement, as significant barriers to physician participation. Respondents in Tennessee cited low Medicaid reimbursement and the unwillingness of providers to serve the low-income population, regardless of Medicaid fees, as major obstacles to physician participation. In addition, respondents indicated that the generally low supply of physicians in Tennessee allows many obstetricians to fill their practices with privately insured patients.

*Hospital Outpatient Clinics.* On balance, we expected that the expansions would lead to a greater supply of prenatal care services in hospital outpatient departments. With fewer uninsured deliveries, additional funds would be freed up to expand prenatal care or other services. Low occupancy rates would give hospital outpatient departments an additional incentive to provide more prenatal care services to the Medicaid population, thereby assuring a solid base of insured deliveries. Although we expected these factors to dominate, we recognized that it might be difficult for some hospitals to expand prenatal care services, given the financial hardships they might be facing.

We found that many hospital outpatient departments in the study sites expanded the comprehensiveness of their services and/or their caseloads. We also found that some hospitals opened new prenatal clinics. The Gailor Clinic, a hospital-based prenatal clinic at the Memphis Medical

Center, illustrates the experience of some hospital outpatient departments. Before the expansions, the Gailor Clinic had received grant funding from the state to provide services to uninsured pregnant women. Following the expansions, 83 percent of the women served were Medicaid eligible, an increase from 50 percent, yet Gailor still received the same amount of state funds, which were added to their Medicaid reimbursement. Hospital officials said that the increased revenue allowed the clinic to hire more staff and to reorganize its appointment scheduling, thereby providing more comprehensive, less inconvenient care. Waiting times for an initial appointment at the clinic, for example, dropped from a period of two to three months to one week.

We also found examples of the increasing involvement of hospitals in the provision of prenatal care in Michigan. Following the expansions, Mercy Memorial Hospital (a proprietary hospital) in Benton Harbor hired an obstetrician, a midwife, and a part-time family practitioner to staff a new prenatal clinic for Medicaid patients, covering both their salaries and malpractice costs. In 1991, the hospital clinic was providing prenatal care and deliveries for 560 women a year. Respondents reported that, by establishing a prenatal clinic, the hospital could fill empty beds by capturing a large number of Medicaid-covered deliveries.

Finally, the state of California made funds available to disproportionate-share hospitals to develop or expand perinatal programs in an effort to increase the capacity of the prenatal care system. Highland Hospital, the Oakland County hospital, received 2.3 million dollars from the state, which was used to cover start-up costs and capital renovations necessary to begin their program, called "Start Prenatal Care." Under this program, pregnant women who enter the emergency room are identified and seen by a certified nurse midwife the same day. The pregnant woman is then referred to Highland Hospital's obstetric clinic. The grant also allowed the hospital to hire more obstetric providers, thus increasing their overall capacity to provide prenatal care. Less than four months after the program had started, 500 women had been enrolled, most of whom were Medicaid-eligible.

*Publicly Funded Clinics.* We expected that the expansions would lead local health departments and community and migrant health clinics to increase the volume of services they provide or improve the quality of care, or both, because of the greater number of resources available to them as a result of reductions in their uncompensated care burdens. At the same time, we recognized that the expansions paradoxically could induce a contraction in services. First, clinics could experience a decline in

demand if some of their previously uninsured clients opted to go elsewhere for services. Second, grant monies for these providers could be reduced as a way of financing the expansion, which could in turn reduce their volume of services.

In most areas, we found that clinics increased their care provision. Like hospitals, many community and county clinics chose to offer more comprehensive care and/or to increase their caseload. Both approaches were observed in Oakland. The Eastern Health Center, a health department clinic in East Oakland, had received grant funds before the expansions to provide prenatal care and enhanced services to uninsured women and to provide enhanced services to Medicaid-covered women. Eastern used the additional reimbursement from the Medicaid expansions to provide more comprehensive services to its existing caseload. The West Oakland Center, in contrast, which had originally served only Medicaid and self-pay patients, expanded its prenatal care caseload by 200 percent and opened a satellite clinic in East Oakland. Despite these increases in supply, respondents overwhelmingly stated that the supply of clinics in Oakland was inadequate to meet demand, as evidenced by long waiting times for initial appointments and the decision by some clinics not to take on new patients.

The Vista Community Clinic in San Diego also chose the strategy of expanding service volume by increasing the number of pregnant women served by over 250 percent. This was accomplished by augmenting an existing prenatal care program and using foundation funds to start another program in conjunction with a local hospital. At the time of the site visit, this organization was planning to open an additional clinic in a neighboring town.

In Tennessee, respondents indicated that the mechanism used to finance the Medicaid expansions had the unanticipated effect of significantly reducing the supply of prenatal care provided by public clinics in rural areas because Tennessee's entire state MCH budget for prenatal care was transferred to the Medicaid program. The theory behind this strategy was that many Medicaid-covered women would receive prenatal care from the private sector and that county health departments could bill Medicaid directly for the prenatal care services they had been providing previously to low-income women with MCH funding. Respondents asserted that this strategy failed for two reasons.

First, the gap in funding that resulted because Medicaid payment is made only upon delivery led to the closing of some local health depart-

ments in rural areas, where other providers are also scarce. Respondents indicated that the change in the flow of funds to rural county health departments from a grant-based to a fee-for-service system made it impossible for some rural county health departments to maintain the staff necessary to provide prenatal care services. In fact, two-thirds of the county health departments became "basic care" counties, offering only pregnancy testing and referral services. In 1985, 74 Tennessee counties provided comprehensive prenatal services through either the health department or traveling prenatal care programs. In 1991, only 25 of these county health departments provided prenatal care. Health department prenatal clinics did not close in all rural Tennessee counties. For example, in Monroe County, the health department clinic used other county monies to remain open until Medicaid reimbursement enabled it to become self-sustaining.

According to most respondents, the second reason for the failed strategy can be traced to obstetric shortages that exist even in the private market. Although state officials maintained that patient care was shifted to the private sector, the class action suit filed against the state regarding access to prenatal care and other evidence found in the case studies indicate that this shift did not occur in many areas. For example, respondents at the University of Tennessee Medical Center in Knoxville, the regional perinatal center in the eastern part of the state, stated that, in their prenatal clinic, one-half to three-quarters of the clinic's deliveries are to women who reside in surrounding rural areas. Moreover, there is a two-month wait for an initial prenatal appointment for a low-risk pregnancy in the clinic.

In contrast to Tennessee, we found that shifting MCH funds away from county and community health centers did not result in a reduction of supply in California. There, MCH funds that had once been used for prenatal care and support services for low-income women were shifted to other MCH programs and could no longer be used to provide prenatal care. In California, however, transitional monies were given to many community, county, and hospital clinics, a move that respondents felt was critical to the clinics' ability to sustain their prenatal programs during the transition from reliance on grants to a fee-for-service payment system.

*Alternative Service Delivery Approaches.* A development that we had not anticipated, but did observe, was the emergence of several alternative service delivery approaches during the expansion period, which

increased the supply of prenatal care available to low-income women. Certified nurse midwives (CNMs) and nurse practitioners were used more often for low-risk prenatal care and delivery services; modular systems were developed so that prenatal care providers could travel to clinic locations one or two days a week. Free-standing birth centers, hospital-based prenatal care clinics, and community health centers in the study sites relied increasingly on CNMs. However, in some areas there is a shortage of CNMs. According to ACOG representatives in California, for every CNM seeking employment in California in 1992, seven positions were available.

The modular systems that were observed combined a delivery site, like a hospital or a birthing center, with physicians and/or midlevel practitioners who travel to clinic locations one or two days a week to provide prenatal care. The Birth Place, for example, is a proprietary birth center, averaging 200 deliveries a month, that supplies prenatal care teams composed of CNMs and obstetricians to community health centers throughout San Diego County. In Detroit, Michigan, Riverview Hospital (a nonprofit hospital) increased its obstetric staff and funded six physicians and three nurse practitioners to provide services on site and at a number of new offices near the hospital. Patients see the same board-certified physician during each visit, receive their prenatal care in the clinic offices, and deliver at Riverview Hospital. In general, modular systems were found in areas that traditionally lacked private physicians or where existing clinics could not support a full-time obstetric practice. Respondents consistently attributed their ability to develop and/or expand these types of systems to the extension of coverage to a larger population of women.

## *Other Issues Raised by Respondents*

We expected that other factors were changing during this period that could have affected prenatal care use and the ability of the expansions to improve birth outcomes. Respondents cited state outreach efforts, the changing demographic composition of pregnant women, and the coverage of enhanced services under Medicaid.

*Outreach.* For the expansions to be effective, pregnant women must be aware of new Medicaid eligibility policies and know the importance of prenatal care. Outreach efforts had the potential to inform women about the expansions in eligibility and to make them more aware of the

necessity for prenatal care. Outreach efforts in the four study states varied in intensity and in scale. The case studies yielded little evidence on their effectiveness because they have not been evaluated. Statewide mass media campaigns were launched in California and Michigan, but they lagged two years behind the initial expansions. Respondents expressed reservations about the efficacy of such outreach programs, claiming that local outreach efforts may be as important as state-supported campaigns. Respondents in several sites also pointed out that large-scale outreach would simply waste funds in areas where supply constituted the binding constraint.

*Demographic Characteristics of Pregnant Women.* The demographic characteristics of women giving birth changed during the expansion period. Probably the most compelling change, noted in most of the sites, was the increase in births to unmarried women. In addition, respondents in all four states noted that teen pregnancies were on the rise, although the scale differed by site. Moreover, the increasing substance abuse and economic hardship mentioned by respondents in almost all sites were factors that may have slowed the impact of the expansions on prenatal care use. Respondents mentioned that the recession, which worsened at the beginning of 1989, placed additional emotional and physical stress on pregnant women, adding to their difficulties in obtaining prenatal care. Finally, the cessation in December 1988 of Medicaid funding for abortions was an issue in Michigan. Without that funding, more pregnant women may have continued with unplanned or unwanted pregnancies, often resulting in inadequate use of prenatal care.

*Enhanced Services.* Each of the four states in this study implemented enhanced service programs around the time they expanded Medicaid eligibility to low-income women. None of the four states provided these services statewide before their inclusion in Medicaid, which meant that Medicaid coverage significantly increased the services available to low-income women. Risk assessment, case management, and health education have the potential to improve outcomes by identifying special health needs, coordinating prenatal care, and increasing awareness about the importance of prenatal care. As mentioned earlier, Michigan and California instituted broader-based and more comprehensive enhanced service programs within Medicaid, encompassing more providers than either Georgia or Tennessee. We expected that the potential benefits of these programs would be tempered by restrictions in the types of providers and in the scope of benefits offered. Although an analysis of this hypothesis is beyond the scope of this case study, we found

that the broader-based programs reached a larger percentage of the population. In Michigan, 23 percent of Medicaid-covered women received an initial risk assessment and five other enriched services in 1991, whereas, in Georgia, only 10 percent of Medicaid-covered women received a risk assessment, case management services, and a postpartum home visit. No data were available in Tennessee and California on the number of women receiving enhanced services. For a more complete discussion of enhanced services, see Dubay et al. (1993).

## Discussion

The case studies present a mixed picture of the potential effectiveness of the expansions. On the one hand, the greater Medicaid coverage for pregnant women significantly increased the share of births paid for by Medicaid funds. Although some of this increase is due to a rise in the AFDC population during this period, most can be attributed to the expansions (Ellwood and Kenney 1995). And although the estimates collected during the case studies seem to overstate Medicaid coverage in Tennessee and Georgia, where other sources cite figures ranging from 42 to 47 percent (Singh, Gold, and Frost 1994; Ellwood and Kenney 1995), our results indicate that Medicaid was covering proportionally more deliveries once the expansions had been implemented.

Despite the increase in Medicaid-covered deliveries, improvements in the initiation of prenatal care were only found in Tennessee. These results are consistent with findings reported in previous literature (Guyer 1990; Schlesinger and Kronebusch 1990) that raised concerns about the limitations of the expansions, that found no improvements in prenatal care use after implementation of the expansions (Haas et al. 1993; Kenney 1995), and that showed Medicaid-covered women continuing to face significant barriers to care (Braveman et al. 1993).

The reduction in the proportion of women receiving prenatal care either very late or not at all in Tennessee is surprising in light of the reduced supply of rural public clinics. Two factors could explain this phenomenon: First, the early outstationing of eligibility workers in hospitals with large Medicaid caseloads and the introduction of presumptive eligibility may have eliminated some barriers to Medicaid enrollment. In fact, between 1987 and 1991, Tennessee outpaced the other three study states in enrollment of women early in pregnancy (Ellwood and Kenney

1995). Second, the closing of health department clinics in rural Tennessee may have adversely affected access to prenatal care for women in rural areas, but the number of women affected may not have been very large, given that the majority of the Medicaid population lives in urban areas.

The lack of improvement in prenatal care use in the other three states is troubling; it suggests that significant barriers to prenatal care for low-income pregnant women remain and that the expansions, while necessary, may not be sufficient to ensure adequate prenatal care for low-income women. Clearly, further analysis is needed to understand whether the lack of improvement in prenatal care in California, Georgia, and Michigan was the result of changes in the demographics of women giving birth or of problems with the delivery system like inadequate supply and cumbersome Medicaid eligibility determination processes. It is critical for future research to explore data from more states and include multivariate analyses that control for policy and for concurrent demographic changes.

Another potential explanation for the lack of improvement in prenatal care use is the fact that the expansions represented a shift in the source of financing for prenatal care rather than a net increase in the provision of prenatal care. In some areas, many of the women newly covered by the expansions were previously receiving prenatal care that was subsidized by MCH block grants or other programs to serve indigent clients or by physicians who were providing some level of uncompensated care. Under these circumstances, the expansions may have been essentially a shift in the financing of prenatal care for low-income women.

Moreover, the case studies identified a number of areas where barriers to care remain. Although the supply of prenatal care services to the low-income population has apparently grown during the expansion period, this growth was not uniform across areas, nor is it likely that the increased supply was adequate to meet demand. In general, increases in supply appeared to be greatest when accompanied by complementary policies.

On the physician side, Medicaid fee increases, reductions in Medicaid payment hassles and delays, and the drop in malpractice rates following tort reform seemed to be associated with increased Medicaid participation. Physician participation also grew in areas where referral networks were established that allowed physicians to control the number of Medicaid referrals they receive. Although respondents almost universally attributed increases in supply to these types of policies, there were some

sites where physicians did not respond to these incentives, indicating that additional policies may be needed to ensure that Medicaid-covered pregnant women achieve adequate access to physician services.

Of the four states studied, California implemented the most sweeping changes in Medicaid policies concerning obstetrics, which seemed to spark more willingness by physicians to serve Medicaid patients. Similar patterns were found in Georgia. In addition to state policy changes in California, local efforts and market factors were instrumental in increasing physicians' willingness to participate in Medicaid in San Diego. However, policy changes implemented in California did not result in more physician participation in all areas. Physician participation in Medicaid in Oakland fell to an all-time low during the expansion period. Moreover, there appears to be a mismatch in Oakland between the neighborhoods where pregnant women who have traditionally been covered by Medicaid reside and the location of physicians' offices. Clearly, the state-level changes in policy in California have not yet led private physicians either to participate in Medicaid or to locate in underserved areas of Oakland, suggesting that further policy changes may be required to assure access to prenatal care in some inner-city areas. This finding resembles that of Fossett and his colleagues (1990).

Neither Michigan nor Tennessee implemented major policy changes affecting physicians at the state level during the study period, which perhaps accounted for the lack of improvement in physician participation in these two states. In Michigan, respondents cited high malpractice premiums, coupled with low Medicaid reimbursement, as major obstacles to participation in the Medicaid program. Although malpractice issues have been important, their role may shrink because of recent legislative changes. In the summer of 1992, a tort reform bill, constituting one of the most far-reaching efforts nationwide, was passed by the Michigan state legislature.

While obstetricians in Tennessee do not face high malpractice premiums compared with the rest of the country, the state's Medicaid fees have historically been low. Although Medicaid's dominance in financing deliveries in Tennessee did not initially spark a major expansion in the Medicaid services provided by private physicians, the substantial Medicaid fee increases in 1991 may have stimulated greater physician participation during the period before the implementation of Tenn Care, the state's Medicaid managed-care demonstration project.

On the clinic side, respondents credited the expansions with allowing them to develop and increase services. Some clinics chose to add to their

number of prenatal patients; others expanded the scope of services offered to their current caseload. State and local incentives also stimulated clinics to augment their service. Beyond these general trends, the response of publicly funded clinics depended crucially on the methods used to finance the Medicaid expansions. In Tennessee the chosen financing strategy had the perverse effect of contracting the supply of prenatal care services available to the low-income population by some rural health departments.

Based on the experiences of the four study states, it seems clear that changes in the enrollment system can significantly reduce enrollment delays. Recent evidence indicates that improvements in the enrollment systems have allowed these four Medicaid programs to sign up women earlier in their pregnancies (Ellwood and Kenney 1995). The eligibility process seemed to work better in San Diego than in the other study sites, probably because the combined state and county efforts made both the outstationing and the expedited eligibility programs viable. Except where the eligibility process focuses on eligible women seeking care from private providers, the improvements in the enrollment system may help the clinics more than they help eligible pregnant women to find care wherever they seek it. Finally, although successful programs clearly have significantly reduced the waiting time required to receive Medicaid eligibility, it is not so clear that this has resulted in women receiving prenatal care earlier in their pregnancy.

The case studies have pointed to several policies that seem to improve access to prenatal care for Medicaid-covered pregnant women. However, even if states were to undertake all of the policies to increase the supply of services and streamline the eligibility determination process, and even if problems in the prenatal care system were reduced or eradicated, demand for prenatal care and adoption of healthy behaviors during pregnancy may be lower than is socially or individually optimal. Unfortunately, the demographic characteristics of women giving birth changed during the expansion period in ways that may partly explain the absence of progress in prenatal care use. Probably the most compelling change was the 5 percent decline (from 76 to 71 percent) in the share of births occurring to married women between 1987 and 1991. This shift appears to have exercised a dramatic effect on overall changes in prenatal care use over this period (Kenney 1994). Moreover, increased drug use and the recession are likely to have negatively affected the demand for prenatal care by low-income women.

Although Medicaid policies have the potential to reduce many barriers to prenatal care use faced by low-income women, in no way do they address socioeconomic factors that affect prenatal care use and birth outcomes like poverty, lack of education, and discrimination. Thus, while the changes made within Medicaid may alleviate some of the problems that have prevented women from getting the care they need during pregnancy, more comprehensive policy changes may be required to achieve substantial improvements in prenatal care use. To the extent that problems are deeply rooted in social isolation, poverty, and alienation, sweeping societal changes may be needed that cannot emerge through health policies alone.

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